INDIANA DEPARTMENT OF EDUCATION

OFFICE OF TEACHING AND LEARNING

High School Course Titles and Descriptions

INDIANA DEPARTMENT *of* EDUCATION

Introduction

The Indiana Department of Education's (IDOE's) Office of Teaching and Learning created the 2023-2024 High School Course Titles and Descriptions to identify course names and brief descriptions for schools and corporations as they plan the academic year for high school students. These course descriptions are intended to assist schools with communicating the content and Indiana Academic Standards associated with the courses through a broad lens. Schools may use the code numbers and titles listed for each course when completing reporting requirements on IDOE documents, as well as student transcripts.

Instructional decisions related to curriculum selection and development, implementation, and assessment are left to local school corporations. In fact, Indiana schools may explore, develop, and implement activities and programs that go beyond these descriptions as they strive to prepare their students for life in an ever-changing world. Indiana State Board of Education (SBOE) rules and the School Improvement Plan required by Public Law 221 provide avenues for gaining approval of well-planned, nonstandard programs and courses. School corporations may apply for a nonstandard course waiver if the course or program is not listed in this document. Look for the links under "Nonstandard Course Waiver" on IDOE's Course Titles and Descriptions webpage. Additionally, information regarding teacher licensing for each course may be found here.

Pursuant to 511 Indiana Administrative Code (IAC) 6.1-5-4.5, the course titles listed in this document, along with approved nonstandard course waivers, are the only course titles that may be offered for high school credit to meet the graduation requirements established by the SBOE, the expectations of Core 40, and the requirements of the honors diplomas. Course descriptions are consistent with the Indiana Academic Standards.

Below are a few items to note as you begin to review this document and plan the academic year.

Maximum number of credits
The maximum number of credits that may be granted for each course is listed in the course description bullets. Generally, one credit is awarded per semester except as noted. Course description bullets identify those courses in which students may receive credit for successive semesters of instruction. Multiple credits may not be awarded for the same course unless the course description permits multiple credits to be awarded.

The SBOE does not restrict high school credit to course work completed in grades nine through 12. Schools may elect to award high school credit to students who complete high school courses before entering grade nine if the course is fully equivalent to its high school counterpart. Local policies and procedures should be developed to govern credit for high school courses taught prior to grade nine. Additional information can be found here.

Required and recommended prerequisites are listed for some courses. Local schools and corporations may require additional prerequisites.

Alternate Diploma
The Alternate Diploma course of study must be followed (effective for the student cohort that started in the school year 2018/2019) if a student with an Individualized Education Program (IEP) has been removed from a diploma path. The Alternate Diploma provides increased access to the general education curriculum by providing flexibility in earning either credits or applied units in general education or special education classes. The Alternate Diploma can be earned through any

combination of applied units and credits. For more information, please see the Graduation Pathways webpage here.

Applied Courses
Applied courses are aligned to Indiana Academic Standards using content connectors and highlight necessary knowledge and skills within these standards for students to reach learning targets at each grade level. These courses are embedded in the content area and descript an approach to instruction and learning that focuses on creating connections between academic subjects and the real world,providing content relevancy for hands-on learners. They are available to students with a broad spectrum of ability levels, and the method of instruction, accommodations, and any modifications will vary based on the needs of the student (e.g., Individualized Education Program).

Laboratory Course
A laboratory course, identified by (L) in these course descriptions, is one in which a “minimum of twenty-five percent (25%) of the total instructional time is devoted to laboratory activities.” Laboratory activities are those activities in which the pupil personally uses appropriate procedures and equipment in accomplishing that learning task.

Honors Courses
Schools may designate a course Honors when the course content is significantly more rigorous than the state-approved course. Honors level courses must be based on the Indiana Academic Standards, have defined criteria for student admission to the course as well as clear expectations of student outcomes. Honors level courses must include a culminating Honors project that reflects understanding of the Honors course content. The course description should reflect the Honors nature of the course, and course titles should include an “H” or the word “Honors” in the title.

Advanced Placement (AP), International Baccalaureate (IB), Cambridge International (CI), and Advanced College Credit (Dual Credit) courses appear only in their respective sections and are not repeated in content area sections.

For information on course revisions and changes, please see Appendix A. Please contact IDOE’s Office of Teaching and Learning with any questions, suggestions, and comments regarding this resource.

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Advanced Courses: Non-Career and Technical Education (CTE) for College Credit

Advanced Courses for College Credit covers (1) any college-level course offered for credit by an accredited post-secondary institution through an approved agreement with a secondary school, or (2) any other post-secondary course offered for dual credit under the provisions of 511 IAC 6-10. The intent of this course is to allow schools to award high school credit to students for taking college courses with content that is more advanced than state-approved high school courses.

Dual credit is the term given to courses in which high school students have the opportunity to earn both high school and college credits. Dual credit courses are taught by high school faculty, adjunct college faculty, or college faculty either at the high school or the college/university. This may also include online courses or distance education taught by college faculty. Dual credit is offered by both state and independent (private, regionally accredited) colleges and universities.

Indiana law requires each Indiana high school to offer a minimum of two dual credit courses.

According to the Indiana Commission for Higher Education's Policy on Dual Credit Courses Taught in High Schools by High School Faculty, all post-secondary institutions shall generate transcripts for all students who complete advanced courses for dual credit. In order to apply these dual credits toward an Honors Diploma Award, both the secondary and the post- secondary institutions must transcript the credit.

In cooperation with the Indiana Commission for Higher Education (CHE), IDOE offers a Dual Credit FAQ by accessing this link. Dual credit courses provide opportunities for qualified students to earn college credit from regionally accredited institutions while attending high school.

1124 Advanced English/Language Arts, College Credit (ADV ENG CC)

Advanced English/Language Arts, College Credit, is an advanced course based on the Indiana Academic Standards for English/Language Arts in grades 11 and 12. This course title covers any English language and composition advanced course offered for credit by an accredited post-secondary institution through an adjunct agreement with a secondary school.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9 and English 10 or other literature, language, composition, and speech courses or teacher recommendation
- Credits: 1 semester course, 1 credit per semester. May be offered for successive semesters
- Fulfills an English/Language Arts requirement for all diplomas
- Courses that use this title are most often those taught through the post-secondary campus, taught either online or in traditional settings or a combination; and/or taught by higher education faculty.
- Courses that use this title are those that do not meet specific high school standards for a corresponding high school course, as they are standards beyond what is taught in the high school.

4260 Advanced Fine Arts, College Credit (ADV ART CC)

Advanced Fine Arts, College Credit is a title covering any advanced course in fine arts (music, visual arts, theater arts, or dance) offered for credit by an accredited post-secondary institution through an adjunct agreement with a secondary school or any other post-secondary fine arts course offered for dual credit.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester. May be offered for successive semesters
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills requirement of 1 or 2 Fine Arts credits for Core 40 with Academic Honors Diploma
- Fine Arts dual credit courses are not included on the list of approved course titles for dual credits that apply toward the Honors diplomas.
- Courses that use this title are most often those taught through the post-secondary campus, taught either online or in traditional settings or a combination; and taught by higher education faculty.
- Courses that use this title are those that do not meet specific high school standards for a corresponding high school course, as they are standards beyond what is taught in the high school.

2544 Advanced Mathematics, College Credit (ADV MTH CC)

Advanced Mathematics, College Credit is a title covering (1) any advanced mathematics course (beyond Algebra II) that is offered for credit by an accredited post-secondary institution and is not a course offered in the Indiana State Approved Course Titles and Descriptions.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Algebra II or Integrated Mathematics III
- Credits: 1 semester course, 1 credit per semester. May be offered for successive semesters
- Counts as a Mathematics course for all diplomas
- Actual course title and university name may be appended to the end of the course title on the student transcript.
- Courses that use this title are those that do not meet specific high school standards for a corresponding high school course, as they are standards beyond what is taught in the high school.
- Courses that use this title are most often those taught through the post-secondary campus, taught either online or in traditional settings or a combination; and taught by higher education faculty.
- Qualifies as a quantitative reasoning course.

3090 Advanced Science, College Credit (L) (ADV SCI CC)

Advanced Science College Credit is a title that covers (1) any science course offered for credit by an accredited post-secondary institution through an adjunct agreement with a secondary school, or (2) any other post-secondary science course offered for dual credit under the provisions of 511 IAC 6-10.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester. May be offered for successive semesters
- Counts as a Science Course for all diplomas
- Courses that use this title are most often those taught through the post-secondary campus, taught either online or in traditional settings or a combination; and taught by higher education faculty.
- Courses that use this title are those that do not meet specific high school standards for a corresponding high school course, as they are standards beyond what is taught in the high school.

1574 Advanced Social Sciences, College Credit (ADV SS CC)

Advanced Social Sciences, College Credit is a title covering (1) any advanced social sciences courses offered for credit by an accredited post-secondary institution through an adjunct agreement with a secondary school or (2) any other post-secondary social sciences course offered for dual credit under the provisions of 511 IAC 6-10.

- Recommended Grade: 12
- Required Prerequisites: none
- Recommended Prerequisites: United States History or History and World Civilizations or World Geography
- Credits: 1 semester course, 1 credit per semester. May be offered for successive semesters
- Counts as an Elective for all diplomas
- Courses that use this title are most often those taught through the post-secondary campus, taught either online or in traditional settings or a combination; and taught by higher education faculty.
- Courses that use this title are those that do not meet specific high school standards for a corresponding high school course, as they are standards beyond what is taught in the high school.

2152 Advanced World Language, College Credit (WLD LANG CC)

Advanced World Language, College Credit is a course covering (1) any advanced course offered for credit by an accredited post-secondary institution through an adjunct agreement with a secondary school, or (2) any other post-secondary world language course offered for dual credit under the provisions of 511 IAC 6-10.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Levels I, II, and III of the language.
- Credits: 1 semester course, 1 credit per semester. May be offered for successive semesters
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma
- Courses that use this title are most often those taught through the post-secondary campus, taught either online or in traditional settings or a combination; and taught by higher education faculty.
- Courses that use this title are those that do not meet specific high school standards for a corresponding high school course, as they are standards beyond what is taught in the

high school.

Advanced Placement (AP) Courses

4025 AP Art History
(ART HIST AP)

AP Art History is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The AP Art History course is equivalent to a two-semester introductory college course that explores topics such as the nature of art, art making, and responses to art. By investigating a specific image set of 250 works of art characterized by diverse artistic traditions from prehistory to the present, the course fosters in-depth, holistic understanding of the history of art from a global perspective. Students become active participants in the global art world, engaging with its forms and content, as they experience, research, discuss, read, and write about art, artists, art making, and responses to and interpretations of art.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma

3020 AP Biology (L)
(BIO AP)

AP Biology is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The major themes of the course include: The process of evolution drives the diversity and unity of life, Biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain dynamic homeostasis, Living systems store, retrieve, transmit and respond to information essential to life processes, Biological systems interact, and these systems and their interactions possess complex properties.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Biology I and Chemistry I
- Credits: 2 semester course, 1 credit per semester
- Counts as a science course for all diplomas
- Qualifies as a quantitative reasoning course
- Laboratory course

2562 AP Calculus AB
(CALC AB AP)

AP Calculus AB is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. AP Calculus AB is equivalent to a first semester college calculus course devoted to topics in differential and integral calculus. This course covers topics in these areas, including concepts and skills of limits, derivatives, definite integrals, and the Fundamental Theorem of Calculus. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

- Recommended Grade: 11,12
- Required Prerequisites: Pre-Calculus: Algebra
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a mathematics course for all diplomas
- Qualifies as a quantitative reasoning course

2563 AP Precalculus (PreCalc AP)

AP Precalculus is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. This course covers topics including modeling real-world data, exploring multiple representations, and mastering symbolic manipulation. The course teaches students to approach precalculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Algebra I
- Recommended Prerequisites: Geometry and/or Algebra II
- Credits: 2 semester course, 1 credit per semester
- Counts as a mathematics course for all diplomas.

2572 AP Calculus BC (CALC BC AP)

AP Calculus BC is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. AP Calculus BC is roughly equivalent to both first and second semester college calculus courses and extends the content learned in AP Calculus AB to different types of equations and introduces the topic of sequences and series. This course covers topics in differential and integral calculus, including concepts and skills of limits, derivatives, definite integrals, the Fundamental Theorem of Calculus, and series. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions. The content of AP Calculus BC is designed to qualify the student for placement and credit in a course that is one course beyond that granted for AP Calculus AB.

- Recommended Grade: 11, 12
- Required Prerequisites: Pre-Calculus: Algebra
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a mathematics course for all diplomas
- Qualifies as a quantitative reasoning course

3060 AP Chemistry (CHEM AP)

AP Chemistry is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The content includes: (1) structure of matter: atomic theory and structure, chemical bonding, molecular models, nuclear chemistry; (2) states of

matter: gasses, liquids and solids, solutions; and (3) reactions: reaction types, stoichiometry, equilibrium, kinetics and thermodynamics.

- Recommended Grade: 12
- Required Prerequisites: none
- Recommended Prerequisites: Chemistry I, Algebra II, Pre-Calculus Algebra / Pre-Calculus Trigonometry
- Credits: 2 semester course, 1 credit per semester. Max 2 credits
- Counts as a science course for all diplomas
- Qualifies as a quantitative reasoning course

2014 AP Chinese Language and Culture (CHI LANG AP)

AP Chinese Language and Culture is a course established and copyrighted by the College Board and follows the College Board course guidelines for AP Chinese Language and Culture. The course prepares students to be successful on the AP Chinese Language and Culture exam. The course is not intended to be used as a dual credit course. The AP Chinese Language and Culture course in Mandarin Chinese emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP Chinese Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Chinese.

The AP Chinese Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students ’awareness and appreciation of cultural products, (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

- Recommended Grade: 11, 12
- Required Prerequisites: Chinese I, II, and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester. Max 2 credits
- Counts as a directed elective or elective for all diplomas
- Fulfills a world language requirement for the Core 40 Academic Honors Diploma

4570 AP Computer Science A (COMP SCI AP)

AP Computer Science A introduces students to computer science through programming. Fundamental topics include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language. AP Computer Science A is equivalent to a first-semester, college-level course in computer science.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: AP Computer Science Principles or Computer Science I, Algebra II

- Credits: 2 semester course, 1 credit per semester. Max 2 credits
- Counts as an elective for all diplomas
- Fulfills a science course requirement for all diplomas
- Qualifies as a quantitative reasoning course

4568AP Computer Science Principles (CSP AP)

The AP Computer Science Principles course is designed to be equivalent to a first-semester introductory college computing course. In this course, students will develop computational thinking skills vital for success across all disciplines, such as using computational tools to analyze and study data and working with large data sets to analyze, visualize, and draw conclusions from trends. The course engages students in the creative aspects of the field by allowing them to develop computational artifacts based on their interests. Students will also develop effective communication and collaboration skills by working individually and collaboratively to solve problems, and will discuss and write about the impacts these solutions could have on their community, society, and the world.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Computer Science, Algebra I
- Credits: 2 semester course, 1 credit per semester. Max 2 credits
- Fulfills a science course requirement for all diplomas
- Qualifies as a quantitative reasoning course

1056 AP English Language and Composition (LNG/COMP AP)

AP English Language and Composition is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The course focuses on the development and revision of evidence-based analytic and argumentative writing and the rhetorical analysis of nonfiction texts. The course aligns to an introductory college-level rhetoric and writing curriculum, which requires students to develop evidence-based analytic and argumentative essays that proceed through several stages or drafts. Students evaluate, synthesize, and cite research to support their arguments. Throughout the course, students develop a personal style by making appropriate grammatical choices. Additionally, students read and analyze the rhetorical elements and their effects in non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods. There is no prescribed sequence of study.

- Recommended Grade: 11, 12 (College Board does not designate when this course should be offered).
- Required Prerequisites: none
- Recommended Prerequisites: English 9 and English 10 or teacher recommendation
- Students should be able to read and comprehend college-level texts and apply the conventions of standard written English in their writing.
- Credits: 2 semester course, 1 credit per semester. Max 2 credits
- Fulfills an English/language arts requirement for grades 11 or 12

1058 AP English Literature and Composition (LIT/COMP AP)

AP English Literature and Composition is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The course

engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9 and English 10 or teacher recommendation
- Students should be able to read and comprehend college-level texts and apply the conventions of Standard Written English in their writing.
- Credits: 2 semester course, 1 credit per semester. Max 2 credits
- Fulfills an English/language arts requirement for grades 11 or 12 for all diplomas

3012 AP Environmental Science (L)
(ENVSCI AP)

AP Environmental Science is a course based on content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. Students enrolled in AP Environmental Science investigate the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them.

- Recommended Grade: 12
- Required Prerequisites: none
- Recommended Prerequisites: Biology I and Chemistry I
- Credits: 2 semester course, 1 credit per semester. Max 2 credits
- Counts as a science course for all diplomas
- Qualifies as a quantitative reasoning course
- Laboratory course

1556 AP European History
(EUR HST AP)

AP European History is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. In AP European History students investigate significant events, individuals, developments, and processes in four historical periods from approximately 1450 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing historical evidence; contextualization; comparison; causation; change and continuity over time; and argument development. The course also provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction of Europe and the world; poverty and prosperity; objective knowledge and subjective visions; states and other institutions of power; individual and society; and national and European identity.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: World History
- Students should be able to read and comprehend college-level texts and apply the conventions of Standard Written English in their writing.
- Credits: 1 to 2 semester course, 1 credit per semester. Max 2 credits

- Counts as an elective for all diplomas

2032 AP French Language and Culture (FR LANG AP)

AP French Language and Culture is a course established and copyrighted by the College Board and follows the College Board course guidelines for AP French Language and Culture. The course prepares students to be successful on the AP French Language and Culture exam. The course is not intended to be used as a dual credit course. The AP French Language and Culture course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP French Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in French.

The AP French Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students 'awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

- Recommended Grade: 11, 12
- Required Prerequisites: French I, II and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester. Max 2 credits
- Fulfills a world language requirement for all diplomas
- Counts as a directed elective or elective for all diplomas

2052 AP German Language and Culture (GER LANG AP)

AP German Language and Culture is a course established and copyrighted by the College Board and follows the College Board course guidelines for AP German Language and Culture. The course prepares students to be successful on the AP German Language and Culture exam. The course is not intended to be used as a dual credit course.

The AP German Language and Culture course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP German Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in German.

The AP German Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

- Recommended Grade: 11, 12
- Required Prerequisites: German I, II and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester. Max 2 credits
- Fulfills a world language requirement for all diplomas
- Counts as a directed elective or elective for all diplomas

1552 AP Comparative Government and Politics (GOVT AP)

AP Comparative Government and Politics is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. AP Comparative Government and Politics introduces students to the rich diversity of political life outside the United States. The course uses a comparative approach to examine the political structures; policies; and the political, economic, and social challenges among six selected countries: Great Britain, Mexico, Russia, Iran, China, and Nigeria. Additionally, students examine how different governments solve similar problems by comparing the effectiveness of approaches to many global issues. Topics include Introduction to Comparative Politics; Sovereignty, Authority, and Power; Political institutions; Citizens, Society, and the State; Political and Economic Change; Public Policy.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: United States Government
- Students should be able to read and comprehend college-level texts and apply the conventions of Standard Written English in their writing.
- Credits: 1 to 2 semester course, 1 credit per semester. Max 2 credits
- Counts as an elective for all diplomas
- No longer fulfills the US government requirement for any diploma

1560 AP United States Government and Politics (US GOVT AP)

AP United States Government and Politics is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. AP U.S. Government and Politics provides a college-level, nonpartisan introduction to key political concepts, ideas, institutions, policies, interactions, roles, and behaviors that characterize the constitutional system and political culture of the United States. Students study U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions among political institutions, processes, and behavior. They also engage in disciplinary practices that require them to read and interpret data, make comparisons and applications, and develop evidence-based arguments. In addition, they complete a political science research or applied civics project.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Students should be able to read a college level textbook and write grammatically correct sentences.
- Credits: 1 to 2 semester course, 1 credit per semester. Max 2 credits
- Fulfills the government requirement for all diplomas

1572 AP Human Geography (HUM GEO AP)

AP Human Geography is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The AP Human Geography course is equivalent to an introductory college-level course in human geography. The course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine socio-economic organization and its environmental consequences. They also

learn about the methods and tools geographers use in their research and applications. The curriculum reflects the goals of the National Geography Standards (2012). Topics include Geography-Nature and Perspectives, Population and Migration, Cultural Patterns and Processes, Political Organization of Space, Agriculture, Food Production, and Rural Land Use, Industrialization and Economic Development, and Cities and Urban Land Use.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Students should be able to read and comprehend college-level texts and apply the conventions of Standard Written English in their writing.
- Credits: 1 to 2 semester course, 1 credit per semester. Max 2 credits
- Counts as an elective for all diplomas

2272 AP Italian Language and Culture (ITAL AP)

AP Italian Language and Culture is a course established and copyrighted by the College Board and follows the College Board course guidelines for AP Italian Language and Culture. The course prepares students to be successful on the AP Italian Language and Culture exam. The course is not intended to be used as a dual credit course.

The AP Italian Language and Culture course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP Italian Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Italian.

The AP Italian Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students ’awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

- Recommended Grade: 11, 12
- Required Prerequisites: Italian I, II and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester. Max 2 credits
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2074 AP Japanese Language and Culture (JAP LANG AP)

AP Japanese Language and Culture is a course established and copyrighted by the College Board and follows the College Board course guidelines for AP Japanese Language and Culture. The course prepares students to be successful on the AP Japanese Language and Culture exam. The course is not intended to be used as a dual credit course.

The AP Japanese Language and Culture course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP Japanese Language and Culture course strives not to emphasize grammatical

accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Japanese.The AP Japanese Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students ’awareness and appreciation of social, political, and educational issues (e.g., the role of religion in society, traditional versus modern gender roles), as well as more traditional topics (e.g., arts, customs, festivals, geography, and history).Throughout the course, students develop interpersonal skills that enable them to request and confirm the receipt of information, ask for and provide directions, and issue and respond to invitations. They also develop more cognitively challenging functional language skills, including the ability to compare phenomena, express opinions and preferences, and discuss life experiences. Additionally, students develop a command of a significant number of the most prevalent kanji characters used in Japanese writing.

- Recommended Grade: 11, 12
- Required Prerequisites: Japanese I, II, and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester. Max 2 credits
- Counts as a directed elective or elective for all diplomas
- Fulfills a world language requirement for the Core 40 with Academic Honors Diploma

2092AP Latin
(LAT VER AP)

AP Latin is a course which follows the College Board course guidelines for AP Latin and prepares students to be successful on the AP Latin exam. The AP Latin: exam is designed to test the students ’ability to using Vergil and Caesar as a base. The course is not intended to be used as a dual credit course. The AP Latin course focuses on the in-depth study of selections from two of the greatest works in Latin literature: Vergil’s Aeneid and Caesar’s Gallic War. The course requires students to prepare and translate the readings and place these texts in a meaningful context, which helps develop critical, historical, and literary sensitivities. Throughout the course, students consider themes in the context of ancient literature and bring these works to life through classroom discussions, debates, and presentations. Additional English readings from both of these works help place the Latin readings in a significant context.

- Recommended Grade: 11, 12
- Required Prerequisites: Latin I, II and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester. Max 2 credits
- Counts as a directed elective or elective for all diplomas
- Fulfills a world language requirement for the Core 40 with Academic Honors Diploma

1564 AP Macroeconomics
(MACRO-ECON)

AP Macroeconomics is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. AP Macroeconomics is an introductory college-level course that focuses on the principles that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price-level determination; it also develops students’ familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts. Topics include: Basic Economic Concepts; Measurement of Economic Performance; National Income and Price Determination; Financial Sector; Stabilization Policies; and Economic Growth.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Students should be able to read and comprehend college-level texts and apply the conventions of Standard Written English in their writing.
- Credits: 1 to 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills the economics requirement for all diplomas
- Qualifies as a quantitative reasoning course

1566 AP Microeconomics (MICRO-ECON)

AP Microeconomics is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. AP Microeconomics is an introductory college-level course that focuses on the principles of economics that apply to the functions of individual economic decision-makers. The course also develops students' familiarity with the operation of product and factor markets, distributions of income, market failure, and the role of government in promoting greater efficiency and equity in the economy. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts. Topics include Basic Economic Concepts; Nature and Functions of Product Markets; Factor Markets; and Market Failure and the Role of Government.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none. Students should be able to read a college level textbook and write grammatically correct, complete sentences.
- Credits: 1 to 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills the economics requirement for all diplomas
- Qualifies as a quantitative reasoning course

4210 AP Music Theory (L) (MUS TH AP)

AP Music Theory is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The AP Music Theory course corresponds to two semesters of a typical introductory college music theory course that covers topics such as musicianship, theory, musical materials, and procedures. Through the course, students develop the ability to recognize, understand, and describe basic materials and processes of music that are heard or presented in a score.

Development of aural skills is a primary objective. Performance is also part of the learning process. Students understand basic concepts and terminology by listening to and performing a wide variety of music.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills fine arts requirement for Core 40 with Academic Honors Diploma

- Laboratory course

3080 AP Physics 1: Algebra-Based
(PHYS 1 AP)

AP Physics 1 is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. AP Physics 1: Algebra- based is equivalent to a first-semester college course in algebra-based physics. The course includes Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; mechanical waves and sound. It will also introduce electric circuits.

- Recommended Grade: 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Algebra I or Integrated Mathematics I
- Credits: 2 semester course, 1 credit per semester
- Counts as a science course for all diplomas
- Qualifies as a quantitative reasoning course

3081AP Physics 2: Algebra-Based (L)
(PHYS 2 AP)

AP Physics 2 is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. AP Physics 2: Algebra- based is equivalent to a second-semester college course in algebra-based physics. The course covers fluid mechanics; thermodynamics; electricity and magnetism; optics; atomic and nuclear physics.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: AP Physics 1: Algebra-based
- Credits: 2 semester course, 1 credit per semester
- Counts as a science course for all diplomas
- Qualifies as a quantitative reasoning course

3088 AP Physics C (L)
(PHYS C AP)

AP Physics C is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. There are two AP Physics C courses, Physics C: Mechanics, and Physics C: Electricity and Magnetism. AP Physics C: Mechanics provides instruction in each of the following six content areas: kinematics; Newton's laws of motion; work, energy, and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation. AP Physics C: Electricity and Magnetism provides instruction in each of the following five content areas: electrostatics; conductors, capacitors, and dielectrics; electric circuits; magnetic fields; and electromagnetism.

- Recommended Grade: 12
- Required Prerequisites: none
- Recommended Prerequisites: Physics I, Calculus (can be taken concurrently)
- Credits: 2 semester course, 1 credit per semester
- Counts as a science course for all diplomas
- Qualifies as a quantitative reasoning course
- Counts as an elective for all diplomas

1558 AP Psychology
(PSYCH AP)

AP Psychology is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The AP Psychology course introduces students to the systematic and scientific study of human behavior and mental processes. While considering the psychologists and studies that have shaped the field, students explore and apply psychological theories, key concepts, and phenomena associated with such topics as the biological bases of behavior, sensation and perception, learning and cognition, motivation, developmental psychology, testing and individual differences, treatment of abnormal behavior, and social psychology. Throughout the course, students employ psychological research methods, including ethical considerations, as they use the scientific method, analyze bias, evaluate claims and evidence, and effectively communicate ideas. Topics include: History and Approaches; Research Methods; Biological Bases of Behavior; Sensation and Perception; States of Consciousness; Learning; Cognition; Motivation and Emotion; Developmental Psychology; Personality; Testing and Individual Differences; Abnormal Behavior; Treatment of Abnormal Behavior; and Social Psychology.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Students should be able to read and comprehend college-level texts and apply the conventions of Standard Written English in their writing.
- Credits: 1 to 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas

0551 AP Research
(RSCH, AP)

AP Research is the second-year foundational interdisciplinary course that is unique to the AP Capstone diploma program. AP Research allows students to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan, and conduct a year-long research-based investigation to address a research question. In the AP Research course, students further their skills acquired in the AP Seminar course by understanding research methodology; employing ethical research practices; and accessing, analyzing, and synthesizing information as they address a research question. Students explore their skill development, document their processes, and curate the artifacts of the development of their scholarly work in a portfolio. The course culminates in an academic paper of approximately 4000–5000 words (accompanied by a performance or exhibition of product where applicable) and a presentation with an oral defense.

- Recommended Grade: 12
- Required Prerequisites: AP Seminar
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas

0552 AP Seminar
(SEM, AP)

Seminar Advanced Placement is the first-year foundational interdisciplinary course that is unique to the AP Capstone diploma program. AP Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and

analyzing articles, research studies, and foundational literary and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in research-based written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments.

- Recommended Grade: 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas

2132 AP Spanish Language and Culture (SP LANG AP)

AP Spanish Language and Culture is a course established and copyrighted by the College Board and follows the College Board course guidelines for AP Spanish Language and Culture. The course prepares students to be successful on the AP Spanish Language and Culture exam. The course is not intended to be used as a dual credit course.

The AP Spanish Language and Culture course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP Spanish Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish.

The AP Spanish Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students ’awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

- Recommended Grade: 11, 12
- Required Prerequisites: Spanish I, II, and II
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a world language requirement for the Core 40 with Academic Honors Diploma

2134 AP Spanish Literature and Culture (SP LIT AP)

AP Spanish Literature and Culture is a course established and copyrighted by the College Board and follows the College Board course guidelines for AP Spanish Literature andCulture.The course prepares students to be successful on the AP Spanish Literature and Culture exam. The course is not intended to be used as a dual credit course.

The AP Spanish Literature and Culture course uses a thematic approach to introduce students to representative texts (short stories, novels, poetry, and essays) from Peninsular Spanish, Latin American, and United States Hispanic literature. Students develop proficiencies across the full range of communication modes (interpersonal, presentational, and interpretive), thereby honing their critical

reading and analytical writing skills. Literature is examined within the context of its time and place, as students reflect on the many voices and cultures present in the required readings. The course also includes a strong focus on cultural connections and comparisons, including exploration of various media (e.g., art, film, articles, literary criticism).

- Recommended Grade: 11, 12
- Required Prerequisites: Spanish I, II, and II
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a world language requirement for the Core 40 with Academic Honors Diploma

2570 AP Statistics
(AP STAT)

AP Statistics is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The AP Statistics course is equivalent to a one-semester, introductory, non-calculus-based college course in statistics. The course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes in the AP Statistics course: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Algebra II or Integrated Mathematics III
- Credits: 1 to 2 credit course, 1 credit per semester. Due to the level of rigor, it is recommended that AP Statistics be offered as a 2 semester, 2 credit course.
- Counts as a mathematics course for all diplomas
- Qualifies as a quantitative reasoning course

4048AP Drawing
(ART DRP AP)

AP Drawing is a course established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The AP Studio Art Program consists of three portfolio exams—2-D Design, 3-D Design, and Drawing—corresponding to the college foundation courses. Portfolios allow flexibility of coursework while guiding students to produce college-level quality, artistic investigation, and breadth of work. The Drawing portfolio addresses issues such as line quality, light and shade, rendering of form, composition, surface manipulation, the illusion of depth, and mark-making. Students' portfolios demonstrate skills and ideas developed, refined, and applied throughout the course to produce visual compositions.

Students may choose to submit any or all of the portfolios. Portfolios are evaluated based on standardized scoring descriptors aligned with skills and understanding developed in college foundation courses. The portfolio will have two sections: sustained investigation and selected works.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Advanced laboratory visual arts courses
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas

- Fulfills the fine arts requirement for the Core 40 with Academic Honors Diploma

4050AP 2-D Art and Design
(ART 2D AP)

AP 2-D Design is a course established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The AP Program offers three studio art courses and portfolios: 2-Dimensional Design, 3-Dimensional Design, and Drawing. The AP Art portfolios are designed for students who are seriously interested in the practical experience of art. The portfolios correspond to most college foundation courses. Students submit portfolios for evaluation at the end of the school year. Students may choose to submit any or all of the Drawing, 2-Dimensional Design, or 3-Dimensional design portfolios. AP Art students create a portfolio of work to demonstrate the artistic skills and ideas they have developed, refined, and applied over the course of the year to produce visual compositions. The portfolio will have two sections: Sustained Investigation and Selected works.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Advanced laboratory 2-D visual arts courses
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills the fine arts requirement for the Core 40 with Academic Honors Diploma

4052AP 3-D Art and Design (New name in 2019-2020 for AP Studio Art: 3-D Design)
(ART 3D AP)

AP 3-D Design is a course established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The AP Art Program consists of three portfolio exams—2-D Design, 3-D Design, and Drawing—corresponding to the college foundation courses. Portfolios allow flexibility of coursework while guiding students to produce college-level quality, artistic investigation, and breadth of work. The 3-D Design portfolio involves decision making about how to use the elements and principles of art as they relate to the integration of depth, space, volume, and surface, either actual or virtual. Students' portfolios demonstrate skills and ideas developed, refined, and applied throughout the course to produce visual compositions. Students may choose to submit any or all of the portfolios. Portfolios are evaluated based on standardized scoring descriptors aligned with skills and understanding developed in college foundation courses. The portfolio will have two sections: Sustained Investigation and Selected works.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Advanced laboratory 3-D visual arts courses
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills the fine arts requirement for the Core 40 with Academic Honors Diploma

1562 AP United States History
(US HIST AP)

AP United States History is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. AP United States History focuses on developing students' abilities to think conceptually about U.S. history from approximately 1491 to the present and apply historical thinking skills as they learn about the past. Seven themes of equal importance — identity; peopling; politics and power; work, exchange, and technology; America in the

world; environment and geography; and ideas, beliefs, and culture — provide areas of historical inquiry for investigation throughout the course. These require students to reason historically about continuity and change over time and make comparisons among various historical developments in different times and places.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Students should be able to read and comprehend college-level texts and apply the conventions of Standard Written English in their writing.
- Credits: 2 semester course, 1 credit per semester
- Fulfills the US history requirement for all diplomas

1612 AP World History Modern (WLD HST MAP)

AP World History Modern students investigate significant events, individuals, developments, and processes in historical periods from approximately 1200 CE to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; and utilizing reasoning about comparison, causation, and continuity and change over time. The course provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: humans and the environment, cultural developments and interactions, governance, economic systems, social interactions and organization, and technology and innovation.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Students should be able to read and comprehend college-level texts and apply the conventions of Standard Written English in their writing.
- Credits: 2 semester course, 1 credit per semester
- Fulfills the geography history of the world/world history and civilization graduation requirement for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

Cambridge International Courses

Cambridge International (Cambridge) programs and qualifications set the global standard for international education. They are created by subject experts, rooted in academic rigor and reflect the latest educational research. The four stages of the Cambridge Pathway lead seamlessly from primary through secondary years. Together with schools, Cambridge International, a not-for-profit department of the world-renowned University of Cambridge in the United Kingdom (UK), develops learners who are confident, responsible, reflective, innovative and engaged – equipped for success in the modern world. Schools may offer these courses after having completed the Cambridge International application and inspection process (details available here).

The Cambridge Advanced International Certificate of Education (AICE) Diploma offers high school students the option to pursue a rigorous and ambitious qualification that teaches the content and key skills to succeed in college-level work. At the same time, Cambridge courses and the diploma structure are flexible enough to let students tailor their studies to their individual interests, abilities,

and future within an international curriculum framework that emphasizes the value of broad and balanced study.

Alongside in-depth understanding of a variety of subjects, students also need to master a broader range of skills critical for success in university study and employment. These essential skills include the ability to: think critically, carry out independent research, evaluate arguments, communicate clear and well-reasoned arguments, and understand global issues from multiple perspectives. Qualifying for the Cambridge AICE Diploma requires students to pass Cambridge Advanced Global Perspectives and Research (AS Level) which helps develop these essential skills. This helps higher education institutions identify students with the type of cohesive academic experience and higher-order thinking and communication skills that are associated with distinguished achievement at university.

The Cambridge AICE Diploma requires learners to complete a course of study of 7 credits, including passing the end of course exams, from a compulsory core subject, Cambridge AS Level Global Perspectives & Research, plus Cambridge AS & A Level subjects drawn from three curriculum areas: mathematics and science (Group 1), languages (Group 2), and arts and humanities (Group 3). There is the option to study interdisciplinary subjects (Group 4) as well. The remaining credits can come from any of the groups.

8100 Cambridge Advanced Accounting (A Level) 9706 (CA A ACCT)

The Cambridge International AS and A Level Accounting syllabus enables learners to apply their accounting knowledge and understanding in order to analyze and present information, give reasoned explanations, and make judgements and recommendations. The syllabus covers topics such as the recording of financial information, accounting principles and control systems, and the preparation of final accounts for a variety of different organizations and businesses. Learners find out about raising capital by shares and loans, ratio analysis and cost accounting, and also study the preparation of cash flow statements, cash flow analysis, and standard costing and investment appraisal, among many other topics.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: 8102 Cambridge Advanced Accounting (AS level) 9706
- Recommended Prerequisites: none
- Credits: A Level (8100) – 2 Semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas

8102 Cambridge Advanced Accounting (AS Level) 9706 (CA AS ACCT)

The Cambridge International AS and A Level Accounting syllabus enables learners to apply their accounting knowledge and understanding in order to analyze and present information, give reasoned explanations, and make judgements and recommendations. The syllabus covers topics such as the recording of financial information, accounting principles and control systems, and the preparation of final accounts for a variety of different organizations and businesses. Learners find out about raising capital by shares and loans, ratio analysis and cost accounting, and also study the preparation of cash flow statements, cash flow analysis, and standard costing and investment appraisal, among many other topics.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: AS Level (8102): 2 semester course, 1 credit per semester

- Counts as a directed elective or elective for all diplomas
- Qualifies as a quantitative reasoning course

8104 Cambridge Advanced Biology (A Level) 9700 (L) (CA A BIO)

Cambridge International AS and A Level Biology builds on the skills acquired at Cambridge IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, a section on some current applications of biology, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination. The emphasis throughout is on the understanding of concepts and the application of biology ideas in novel contexts as well as on the acquisition of knowledge. The course encourages creative thinking and problem-solving skills which are transferable to any future career path. Cambridge International AS and A Level Biology is ideal for learners who want to study biology or a wide variety of related subjects at university, or to follow a career in science.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: IGCSE Biology or Biology I and Chemistry I
- Credits: A Level (8104): 2 semester course 1 credit per semester
- Counts as a Science Course for all diplomas
- Qualifies as a quantitative reasoning course

8106 Cambridge Advanced Biology (AS Level) 9700 (L) (CA AS BIO)

Cambridge International AS and A Level Biology builds on the skills acquired at Cambridge IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, a section on some current applications of biology, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination. The emphasis throughout is on the understanding of concepts and the application of biology ideas in novel contexts as well as on the acquisition of knowledge. The course encourages creative thinking and problem-solving skills which are transferable to any future career path. Cambridge International AS and A Level Biology is ideal for learners who want to study biology or a wide variety of related subjects at university, or to follow a career in science.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: IGCSE Biology or Biology I and Chemistry I
- Credits: AS Level (8106): 2 semester course, 1 credit per semester
- Counts as a Science Course for all diplomas
- Qualifies as a quantitative reasoning course

8108 Cambridge Advanced Business (A Level) 9609 (CA A BUS)

The Cambridge Advanced AS and A Level Business syllabus enables learners to understand and appreciate the nature and scope of business, and the role it plays in society. The syllabus covers economic, environmental, ethical, governmental, legal, social, and technological issues, and encourages a critical understanding of organizations, the markets they serve, and the process of adding value. Learners examine the management of organizations and, in particular, the process of decision-making in a dynamic external environment.

- Recommended Grade: 11, 12

- Required Prerequisites: 8110 Cambridge Advanced Business (AS Level) 9609
- Recommended Prerequisites: Two or more credits in a business career pathway one of which includes IGCSE Business Studies
- Credits: A Level (8108): 2 semester course 1 credit per semester
- Counts as a directed elective or elective for all diplomas

8110 Cambridge Advanced Business (AS Level) 9609 (CA AS BUS)

The Business syllabus enables learners to understand and appreciate the nature and scope of business, and the role it plays in society. The syllabus covers economic, environmental, ethical, governmental, legal, social, and technological issues, and encourages a critical understanding of organizations, the markets they serve and the process of adding value. Learners examine the management of organizations and, in particular, the process of decision-making in a dynamic external environment.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Two or more credits in a business career pathway one of which includes IGCSE Business Studies
- Credits: AS Level (8110): 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas

8112 Cambridge Advanced Chemistry (A Level) 9701 (L) (CA A CHEM)

Cambridge International AS and A Level Chemistry builds on the skills acquired at Cambridge IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, a section on some current applications of chemistry, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination. The emphasis throughout is on the understanding of concepts and the application of chemistry ideas in novel contexts, as well as on the acquisition of knowledge. The course encourages creative thinking and problem-solving skills which are transferable to any future career path. Cambridge International AS and A Level Chemistry is ideal for learners who want to study chemistry or a wide variety of related subjects at university, or to follow a career in science.

- Recommended Grade: 12
- Required Prerequisites: 8114 Cambridge Advanced Chemistry (AS Level) 9701
- Recommended Prerequisites: Chemistry I or IGCSE Chemistry
- Credits: A Level (8112): 2 semester course 1 credit per semester
- Counts as a Science Course for all diplomas
- Qualifies as a quantitative reasoning course

8114 Cambridge Advanced Chemistry (AS Level) 9701 (L) (CA AS CHEM)

Cambridge International AS and A Level Chemistry builds on the skills acquired at Cambridge IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, a section on some current applications of chemistry, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination. The emphasis throughout is on the understanding of concepts and the application of chemistry ideas in novel contexts as well as on the acquisition of knowledge. The course encourages creative thinking and problem-solving skills which are transferable to any future career path. Cambridge International AS and A Level Chemistry is ideal for learners who want to study chemistry or a wide variety of related subjects at university, or to follow a career in science.

- Recommended Grade: 11,12
- Required Prerequisites: none
- Recommended Prerequisites: Chemistry I or IGCSE Chemistry
- Credits: AS Level (8114): 2 semester course, 1 credit per semester
- Counts as a Science Course for all diplomas
- Qualifies as a quantitative reasoning course

8116 Cambridge Advanced Computer Science (A Level) 9618 (CA A COMSCI)

Cambridge International AS & A Level Computer Science encourages learners to meet the needs of higher education courses in computer science as well as twenty-first century digital employers. It encourages leaders to think creatively, through applying practical programming solutions, demonstrating that they are effective uses of technology. Learners develop computational thinking & programming skills to solve computer science problems. Cambridge International AS and A Level Computer Science will help learners develop a range of skills such as thinking creatively, analytically, logically, and critically. They will also be able to appreciate the ethical issues that arise with current and emerging computing technologies.

- Recommended Grade: 11, 12
- Required Prerequisites: 8118 Cambridge Advanced Computer Science (AS Level) 9618
- Recommended Prerequisites: Digital Citizenship or IGCSE Computer Science, Algebra I, and Algebra II
- Credits: A Level (8116): 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills a science course requirement for all diplomas
- Qualifies as a quantitative reasoning course

8118 Cambridge Advanced Computer Science (AS Level) 9618 (CA AS COMSCI)

Cambridge International AS & A Level Computer Science encourages learners to meet the needs of higher education courses in computer science as well as twenty-first century digital employers. It encourages leaders to think creatively, through applying practical programming solutions, demonstrating that they are effective uses of technology. Learners develop computational thinking & programming skills to solve computer science problems. Cambridge International AS and A Level Computer Science will help learners develop a range of skills such as thinking creatively, analytically, logically, and critically. They will also be able to appreciate the ethical issues that arise with current and emerging computing technologies.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Digital Citizenship or IGCSE Computer Science, Algebra I, and Algebra II
- Credits: AS Level (8118): 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills a science course requirement for all diplomas
- Qualifies as a quantitative reasoning course

8120 Cambridge Advanced Design and Technology (A Level) 9705 (CA A DTECH)

This Cambridge Advanced AS and A Level syllabus encourages learners to be innovative and creative and to develop their ability to design high quality products. Through their studies, they will develop an

awareness of the significance of design and technology on society, while also learning more about production processes and industrial practices. Learners will be encouraged to use ICT to build their design and technological abilities and develop critical evaluation skills which they can employ in a variety of technical, aesthetic, economic, environmental, social, and cultural contexts. As a result, learners will also become discerning consumers of design and technology, able to make informed choices.

- Recommended Grade: 11, 12
- Required Prerequisites: 8122 Cambridge Advanced Design & Technology (AS Level) 9705
- Recommended Prerequisites: Digital Citizenship or IGCSE Computer Science
- Credits: A Level (8120): 2 semester course 1 credit per semester
- Counts as a Mathematics or elective for all diplomas
- Qualifies as a quantitative reasoning course

8122 Cambridge Advanced Design and Technology (AS Level) 9705 (CA AS DTECH)

This syllabus encourages learners to be innovative and creative and to develop their ability to design high quality products. Through their studies, they will develop an awareness of the significance of design and technology on society, while also learning more about production processes and industrial practices. Learners will be encouraged to use ICT to build their design and technological abilities and develop critical evaluation skills which they can employ in a variety of technical, aesthetic, economic, environmental, social, and cultural contexts. As a result, learners will also become discerning consumers of design and technology, able to make informed choices.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Digital Citizenship or IGCSE Computer Science
- Credits: AS Level (8122): 2 semester course, 1 credit per semester
- Counts as a Mathematics or elective for all diplomas
- Qualifies as a quantitative reasoning course

8124 Cambridge Advanced Economics (A Level) 9708 (CA A ECON)

Through the Cambridge International AS and A Level Economics syllabus, learners study how to explain and analyze economic issues and arguments, evaluate economic information, and organize, present, and communicate ideas and judgements clearly. The syllabus covers a range of basic economic ideas, including an introduction to the price system and government intervention, international trade and exchange rates, the measurement of employment and inflation, and the causes and consequences of inflation. Learners also study the price system, the theory of the firm, market failure, macroeconomic theory and policy, and economic growth and development.

- Recommended Grade: 11, 12
- Required Prerequisites: 8126 Cambridge Advanced Economics (AS level) 9708
- Recommended Prerequisites: none
- Credits: A Level (8124): 2 semester course 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills the Economics requirements for all diplomas
- Qualifies as a quantitative reasoning course

8126 Cambridge Advanced Economics (AS Level) 9708

(CA AS ECON)

Through the Cambridge International AS and A Level Economics syllabus, learners study how to explain and analyze economic issues and arguments, evaluate economic information, and organize, present, and communicate ideas and judgements clearly. The syllabus covers a range of basic economic ideas, including an introduction to the price system and government intervention, international trade and exchange rates, the measurement of employment and inflation, and the causes and consequences of inflation. Learners also study the price system, the theory of the firm, market failure, macroeconomic theory and policy, and economic growth and development.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: AS Level (8126): 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills the Economics requirements for all diplomas
- Qualifies as a quantitative reasoning course

8128 Cambridge Advanced English – Language (A Level) 9093 (CA A ENG LAN)

Cambridge International AS and A Level English Language gives learners the opportunity to study English language and its use in contemporary communication. It aims to encourage a critical response to texts in a range of forms, styles and contexts, and to promote skills of communication, reading, research, and analysis. Through their studies, learners will develop an ability to read and analyze material, gaining further knowledge and understanding of English language features and issues, and writing clearly, accurately, creatively, and effectively for different purposes and audiences.

- Recommended Grade: 11, 12
- Required Prerequisites: 8130 Cambridge Advanced English Language (AS Level) 9093
- Recommended Prerequisites: English 9 and English 10 or IGCSE First Language English and IGCSE English Literature
- Credits: A Level (8128): 2 semester course 1 credit per semester
- Fulfills an English/Language Arts requirement for grades 11 or 12 for all diplomas

8130 Cambridge Advanced English – Language (AS Level) 9093 (CA AS ENG LAN)

Cambridge International AS and A Level English Language gives learners the opportunity to study English language and its use in contemporary communication. It aims to encourage a critical response to texts in a range of forms, styles and contexts, and to promote skills of communication, reading, research, and analysis. Through their studies, learners will develop an ability to read and analyze material, gaining further knowledge and understanding of English language features and issues, and writing clearly, accurately, creatively, and effectively for different purposes and audiences.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9 and English 10 or IGCSE First Language English and IGCSE English Literature
- Credits: AS Level (8130): 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for grades 11 or 12 for all diplomas

8132 Cambridge Advanced English – Literature (A Level) 9695

(CA A ENG LIT)

Learners following the Cambridge International AS and A Level English syllabus will study a range of texts in the three main forms: prose, poetry, and drama. Set texts are offered from a wide range of different periods and cultures. Learners will develop skills of reading and analysis of texts, and are encouraged to undertake wider reading to aid understanding of the texts studied. They will learn the skills of effective and appropriate communication including the ability to discuss the critical context of texts.

- Recommended Grade: 11, 12
- Required Prerequisites: 8134 Cambridge Advanced English Literature (AS Level) 9695
- Recommended Prerequisites: English 9 and English 10 or IGCSE First Language English and IGCSE English Literature
- Credits: A Level (8132): 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for grades 11 or 12 for all diplomas

8134 Cambridge Advanced English – Literature (AS Level) 9695 (CA AS ENG LIT)

Learners following the Cambridge International AS and A Level English syllabus will study a range of texts in the three main forms: prose, poetry, and drama. Set texts are offered from a wide range of different periods and cultures. Learners will develop skills of reading and analysis of texts, and are encouraged to undertake wider reading to aid understanding of the texts studied. They will learn the skills of effective and appropriate communication including the ability to discuss the critical context of texts.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9 and English 10 or IGCSE First Language English and IGCSE English Literature
- Credits: AS Level (8134): 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for grades 11 or 12 for all diplomas

8135 Cambridge Advanced English General Paper (AS Level) 8021 (CA AS ENG GEN PAPER)

The Cambridge International AS Level English General Paper encourages learners to engage with a variety of topics, including knowledge and understanding gained from the study of other subjects. They learn to become confident in analyzing knowledge and opinions from a variety of sources, to build arguments and to communicate through written English. The Cambridge International AS Level English General Paper enables learners to develop these skills which are of great use for further study and employment.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or Composition
- Credits: AS Level (8135): 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

8136 Cambridge Advanced Geography (A Level) 9696 (CA A GEO)

The Cambridge Advanced AS and A Level Geography syllabus builds upon skills gained at Cambridge IGCSE (or equivalent) level study. Learners widen their knowledge and understanding of the subject, while developing their investigative abilities and their evaluation

and decision-making skills. The syllabus is wide-ranging and comprises a variety of options. For example, learners can study topics such as hydrology and fluvial geomorphology, atmosphere and weather, rocks and weathering, population change, and settlement dynamics. The syllabus considers a range of environments, from tropical to arid, and learners can also study subjects such as environmental management, global interdependence, and economic transition.

- Recommended Grade: 11, 12
- Required Prerequisites: 8138 Cambridge Advanced Geography (AS Level) 9696 Recommended Prerequisites: none
- Credits: A Level (8136): 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas

8138 Cambridge Advanced Geography (AS Level) 9696 (CA AS GEO)

The Cambridge Advanced AS and A Level Geography syllabus builds upon skills gained at Cambridge IGCSE (or equivalent) level study. Learners widen their knowledge and understanding of the subject, while developing their investigative abilities and their evaluation and decision-making skills. The syllabus is wide-ranging and comprises a variety of options. For example, learners can study topics such as hydrology and fluvial geomorphology, atmosphere and weather, rocks and weathering, population change, and settlement dynamics. The syllabus considers a range of environments, from tropical to arid, and learners can also study subjects such as environmental management, global interdependence, and economic transition.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: AS Level (8138): 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas

8140 Cambridge Advanced Global Perspective and Research (A Level) 9239 (CA A GLOBAL)

Cambridge International AS and A Level Global Perspectives and Research prepares learners for positive engagement with our rapidly changing world. Learners broaden their outlook through the critical analysis of - and reflection on - issues of global significance. The Cambridge International AS & A Level Global Perspectives and Research syllabus is based on skills rather than on specific content. Learners develop research, thinking, reasoning, and communication skills by following an approach to analyzing and evaluating arguments and perspectives called the Critical Path. Collaborative skills are enhanced through participation in a team project. The skills gained through study of Cambridge International AS & A Level Global Perspectives and Research enable students to meet the demands of twenty-first century learning and to make a successful transition to study in higher education. As part of the course, learners write a research report on a research question of their own choice.

- Recommended Grade: 11,12
- Required Prerequisites: 8142 Cambridge Advanced Global Perspectives and Research (AS Level) 9239
- Recommended Prerequisites: none
- Credits: A Level (8140): 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- As part of the course, learners write a research report on a research question of their own

choice. Learn more about what's required in our Learner's Guide to the Cambridge Research Report.

8142 Cambridge Advanced Global Perspective and Research (AS Level) 9239 (CA AS GLOBAL)

Cambridge International AS and A Level Global Perspectives and Research prepares learners for positive engagement with our rapidly changing world. Learners broaden their outlook through the critical analysis of - and reflection on - issues of global significance. The Cambridge International AS & A Level Global Perspectives and Research syllabus is based on skills rather than on specific content. Learners develop research, thinking, reasoning, and communication skills by following an approach to analyzing and evaluating arguments and perspectives called the Critical Path. Collaborative skills are enhanced through participation in a team project. The skills gained through study of Cambridge International AS & A Level Global Perspectives and Research enable students to meet the demands of twenty-first century learning and to make a successful transition to study in higher education. As part of the course, learners write a research report on a research question of their own choice.

- Recommended Grade: 11,12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: AS Level (8142): 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- As part of the course, learners write a research report on a research question of their own choice. Learn more about what's required in our Learner's Guide to the Cambridge Research Report.

8144 Cambridge Advanced History (American) (A Level) 9489 (CA A AM HIS)

Cambridge International AS and A Level History is a flexible and wide-ranging syllabus covering modern history in the nineteenth and twentieth centuries. The syllabus builds upon skills gained at Cambridge IGCSE or Cambridge O Level and develops lifelong skills including understanding issues and themes within a historical period. The emphasis is again on both historical knowledge and on the skills required for historical research. Learners develop an understanding of cause and effect, continuity and change, similarity and difference, and use historical evidence as part of their studies. Both at AS and A Level learners can select from topics on European, American or International history.

- Recommended Grade: none
- Required Prerequisites: 2 semester Cambridge Advanced History (American) or History (European) or History (International) (AS level)
- Recommended Prerequisites: none
- Credits: A Level (8144): 2 semester course, 1 credit per semester
- Fulfills a Social Studies requirement for all diplomas

8145 Cambridge Advanced History (International) (A Level) 9489 (CA A Int'l HIS)

Cambridge Advanced AS and A Level History is a flexible and wide-ranging syllabus covering modern history in the nineteenth and twentieth centuries. The syllabus builds upon skills gained at Cambridge IGCSE or Cambridge O Level and develops lifelong skills including understanding issues and themes within a historical period. The emphasis is again on both historical knowledge and on the skills required for historical research. Learners develop an understanding of cause and effect, continuity and change, similarity

and difference, and use historical evidence as part of their studies. Both at AS and A Level learners can select from topics on International history.

- Recommended Grade: none
- Required Prerequisites: 2 semester Cambridge Advanced History (American) or History (European) or History (International) (AS level)
- Recommended Prerequisites: none
- Credits: A Level (8145): 2 semester course, 1 credit per semester
- Fulfills a Social Studies requirement for all diplomas

8146 Cambridge Advanced History (American) (AS Level) 9489 (CA AS AM HIS)

Cambridge International AS and A Level History is a flexible and wide-ranging syllabus covering modern history in the nineteenth and twentieth centuries. The syllabus builds upon skills gained at Cambridge IGCSE or Cambridge O Level and develops lifelong skills including understanding issues and themes within a historical period. The emphasis is again on both historical knowledge and on the skills required for historical research. Learners develop an understanding of cause and effect, continuity and change, similarity and difference, and use historical evidence as part of their studies. Both at AS and A Level learners can select from topics on European, American or International history.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: AS Level (8146): 2 semester course, 1 credit per semester
- Fulfills a Social Studies requirement for all diplomas

8147 Cambridge Advanced History (International) (AS Level) 9489 (CA AS Int'l HIS)

Cambridge Advanced AS and A Level History is a flexible and wide-ranging syllabus covering modern history in the nineteenth and twentieth centuries. The syllabus builds upon skills gained at Cambridge IGCSE or Cambridge O Level and develops lifelong skills including understanding issues and themes within a historical period. The emphasis is again on both historical knowledge and on the skills required for historical research. Learners develop an understanding of cause and effect, continuity and change, similarity and difference, and use historical evidence as part of their studies. Both at AS and A Level learners can select from topics on International history.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: AS Level (8147): 2 semester course, 1 credit per semester
- Fulfills a Social Studies requirement for all diplomas

8148 Cambridge Advanced Information Technology (A Level) 9626 (CA A INFOTECH)

This syllabus encourages learners to become effective and discerning users of IT. It helps them to develop a broad range of IT skills, knowledge and understanding. Learners study the structure and use of IT systems within a wide range of organizations, including the use of a variety of computer networks. As a result, learners gain an understanding of IT system life cycles, and how these affect the workplace. They also learn about the wider impact of IT on society in general. At A Level, learners also study simple programming for the web relevant to their own use of IT.

- Recommended Grade: 11, 12
- Required Prerequisites: 8150 Cambridge Advanced Information Technology (AS Level) 9626
- Recommended Prerequisites: Digital Citizenship or IGCSE Information and Communication Technology
- Credits: A Level (8148): 2 semester course, 1 credit per semester
- Counts as a Mathematics or elective for all diplomas

8149 Cambridge Advanced History (European) (A Level) 9489 (CA A EU HIS)

Cambridge Advanced AS and A Level History is a flexible and wide-ranging syllabus covering modern history in the nineteenth and twentieth centuries. The syllabus builds upon skills gained at Cambridge IGCSE or Cambridge O Level and develops lifelong skills including understanding issues and themes within a historical period. The emphasis is again on both historical knowledge and on the skills required for historical research. Learners develop an understanding of cause and effect, continuity and change, similarity and difference, and use historical evidence as part of their studies. Both at AS and A Level learners can select from topics on European history.

- Recommended Grade: none
- Required Prerequisites: 2 semester Cambridge Advanced History (American) or History (European) or History (International) (AS level)
- Recommended Prerequisites: none
- Credits: A Level (8149): 2 semester course, 1 credit per semester
- Fulfills a Social Studies requirement for all diplomas

8150 Cambridge Advanced Information Technology (AS Level) 9626 (CA AS INFOTECH)

This syllabus encourages learners to become effective and discerning users of IT. It helps them to develop a broad range of IT skills, knowledge, and understanding. Learners study the structure and use of IT systems within a wide range of organizations, including the use of a variety of computer networks. As a result, learners gain an understanding of IT system life cycles, and how these affect the workplace. They also learn about the wider impact of IT on society in general. At A Level, learners also study simple programming for the web relevant to their own use of IT.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Digital Citizenship or IGCSE Information and Communication Technology
- Credits: AS Level (8150): 2 semester course, 1 credit per semester
- Counts as a mathematics or elective for all diplomas
- Qualifies as a quantitative reasoning course

8151 Cambridge Advanced History (European) (AS Level) 9489 (CA AS EU HIS)

Cambridge Advanced AS and A Level History is a flexible and wide-ranging syllabus covering modern history in the nineteenth and twentieth centuries. The syllabus builds upon skills gained at Cambridge IGCSE or Cambridge O Level and develops lifelong skills including understanding issues and themes within a historical period. The emphasis is again on both historical knowledge and on the skills required for historical research. Learners develop an understanding of cause and effect, continuity and change,

similarity and difference, and use historical evidence as part of their studies. Both at AS and A Level learners can select from topics on European history.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: AS Level (8151): 2 semester course, 1 credit per semester
- Fulfills a Social Studies requirement for all diploma

8152 Cambridge Advanced Marine Science (A Level) 9693 (L) (CA A MARINE SCI)

Cambridge International AS and A Level Marine Science provides a coherent and stimulating introduction to the science of the marine environment. The AS part of the course concentrates on the scientific study of the sea and its ecosystems, while the A Level part concentrates on human activities that depend on the sea and have an impact on it. No prior study at Cambridge IGCSE or Cambridge O Level is assumed. The emphasis throughout is on the understanding of concepts and the application of ideas to new contexts as well as on the acquisition of knowledge, and the course encourages creative thinking and problem-solving skills which are transferable to any future career path. It is expected that practical activities will underpin the teaching of the whole course, and learners may be asked about practical activities in examination questions, but there is no practical paper and no coursework.

- Recommended Grade: 11, 12
- Required Prerequisites: 8154 Cambridge Advanced Marine Science (AS Level) 9693
- Recommended Prerequisites: none
- Credits: A Level (8152): 2 semester course, 1 credit per semester
- Fulfills a Science requirement for all diplomas
- Qualifies as a quantitative reasoning course

8154 Cambridge Advanced Marine Science (AS Level) 9693 (L) (CA AS MARINE SCI)

Cambridge International AS and A Level Marine Science provides a coherent and stimulating introduction to the science of the marine environment. The AS part of the course concentrates on the scientific study of the sea and its ecosystems, while the A Level part concentrates on human activities that depend on the sea and have an impact on it. No prior study at Cambridge IGCSE or Cambridge O Level is assumed. The emphasis throughout is on the understanding of concepts and the application of ideas to new contexts as well as on the acquisition of knowledge, and the course encourages creative thinking and problem-solving skills which are transferable to any future career path. It is expected that practical activities will underpin the teaching of the whole course, and learners may be asked about practical activities in examination questions, but there is no practical paper and no coursework.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: AS Level (8154): 2 semester course, 1 credit per semester
- Fulfills a science requirement for all diplomas
- Qualifies as a quantitative reasoning course

8156 Cambridge Advanced Mathematics (Pure, Probability & Statistics) (A Level) 9709 (CA A ProbStat MATH)

Cambridge International A Level Mathematics develops a set of transferable skills. These include the skill of

working with mathematical information, as well as the ability to think logically and independently, consider accuracy, model situations mathematically, analyze results, and reflect on findings. Learners can apply these skills across a wide range of subjects and these skills equip them well for progression to higher education or directly into employment. At A Level, teachers can also choose from different routes to Cambridge International A Level Mathematics depending on the choice of applied mathematics (Mechanics and/or Probability and Statistics).

- Recommended Grade: 11, 12
- Required Prerequisites: Cambridge Advanced Mathematics (Pure & Mechanics) 9709 or Cambridge Advanced Mathematics (Pure & Probability & Statistics) 9709
- Recommended Prerequisites: Algebra II or Integrated Mathematics III or IGCSE Math
- Credits: A Level (8156):2 semester course 1 credit per semester
- Counts as a Mathematics Course for all diplomas
- Qualifies as a quantitative reasoning course
- Please note: Cambridge Advanced A Level Mathematics has two different routes: Pure Mathematics and Probability & Statistics only; or Pure Mathematics, Mechanics and Probability & Statistics

8157 Cambridge Advanced Mathematics (Pure, Mechanics and Probability & Statistics) (A Level) 9709
(CA A PureMech&Stat MATH)

Cambridge Advanced A Level Mathematics develops a set of transferable skills. These include the skill of working with mathematical information, as well as the ability to think logically and independently, consider accuracy, model situations mathematically, analyze results, and reflect on findings. Learners can apply these skills across a wide range of subjects and these skills equip them well for progression to higher education or directly into employment.

At A Level, teachers can also choose from different routes to Cambridge International A Level Mathematics depending on the choice of applied mathematics (Mechanics and/or Probability and Statistics). This course will focus on Pure Mathematics, Mechanics and Probability & Statistics applications.

- Recommended Grade: 11, 12
- Required Prerequisites: Cambridge Advanced Mathematics (Pure & Mechanics) 9709 or Cambridge Advanced Mathematics (Pure & Probability & Statistics) 9709
- Recommended Prerequisites: Algebra II or Integrated Mathematics III or IGCSE Math
- Credits: A Level (8157):2 semester course 1 credit per semester
- Counts as a Mathematics Course for all diplomas

8158 Cambridge Advanced Mathematics (Pure) (AS Level) 9709
(CA AS Pure MATH)

Cambridge International A Level Mathematics develops a set of transferable skills. These include the skill of working with mathematical information, as well as the ability to think logically and independently, consider accuracy, model situations mathematically, analyze results, and reflect on findings. Learners can apply these skills across a wide range of subjects and these skills equip them well for progression to higher education or directly into employment. At AS level, teachers can choose from three different routes to Cambridge International AS Level Mathematics: Pure Mathematics only, Pure Mathematics and Mechanics, or Pure Mathematics and Probability & Statistics.

- Recommended Grade: 11, 12
- Required Prerequisites: none

- Recommended Prerequisites: Algebra II or Integrated Mathematics III or IGCSE Math
- Credits: AS Level (8158): 2 semester course, 1 credit per semester
- Counts as a Mathematics Course for all diplomas
- Qualifies as a quantitative reasoning course

8159 Cambridge Advanced Mathematics (Pure and Probability & Statistics) (AS Level) 9709 (CA AS Pure&Stats MATH)

Cambridge Advanced A Level Mathematics develops a set of transferable skills. These include the skill of working with mathematical information, as well as the ability to think logically and independently, consider accuracy, model situations mathematically, analyze results, and reflect on findings. Learners can apply these skills across a wide range of subjects and these skills equip them well for progression to higher education or directly into employment.

At AS level, teachers can choose from three different routes to Cambridge Advanced AS Level Mathematics: Pure Mathematics only, Pure Mathematics and Mechanics, or Pure Mathematics and Probability & Statistics. This course will focus on Pure Mathematics and Probability & Statistics applications.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Algebra II or Integrated Mathematics III or IGCSE Math
- Credits: AS Level (8159): 2 semester course, 1 credit per semester
- Counts as a Mathematics Course for all diplomas
- Qualifies as a quantitative reasoning course

8160 Cambridge Advanced Media Studies (A Level) 9607 (CA A MEDIA)

Cambridge International AS and A Level Media Studies offers learners the chance to develop an understanding and appreciation of the place of media in our everyday lives. The syllabus enables learners to take a hands-on approach to the subject. Through the coursework components - the Foundation Portfolio for AS Level and the Advanced Portfolio for A Level - they create their own media products from planning through to execution. Learners also consider and analyze examples from existing media, examining production processes and technologies and the effects they achieve.

- Recommended Grade: 11, 12
- Required Prerequisites: Digital Applications and Responsibility or 8160 Cambridge Advanced Media Studies (AS Level) 9607
- Recommended Prerequisites: Introduction to Communications
- Credits: A Level (8160): 2 semester course 1 credit per semester
- Counts as a directed elective or elective for all diplomas

8162 Cambridge Advanced Media Studies (AS Level) 9607 (CA AS MEDIA)

Cambridge International AS and A Level Media Studies offers learners the chance to develop an understanding and appreciation of the place of media in our everyday lives. The syllabus enables learners to take a hands-on approach to the subject. Through the coursework components - the Foundation Portfolio for AS Level and the Advanced Portfolio for A Level - they create their own media products from planning through to execution. Learners also consider and analyze examples from existing media, examining production processes and technologies and the effects they achieve.

- Recommended Grade: 11, 12

- Required Prerequisites: Digital Applications and Responsibility
- Recommended Prerequisites: Introduction to Communications
- Credits: AS Level (8162): 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas

8163 Cambridge Advanced Further Mathematics (Further Pure 1 & Further Mechanics) (AS Level) 9231
(CA AS Pure1&Mech FURTHER MATH)

Cambridge Advanced AS Level Further Mathematics develops a set of transferable skills. These include the skill of working with mathematical information, as well as the ability to think logically and independently, consider accuracy, model situations mathematically, analyze results, and reflect on findings. Learners can apply these skills across a wide range of subjects and these skills equip them well for progression to higher education or directly into employment. Knowledge of the whole content of the Cambridge International A Level Mathematics 9709 syllabus (Pure, Mechanics and Probability & Statistics) is assumed as a prerequisite.

- Recommended Grade: 11, 12
- Required Prerequisites: 8157 Cambridge Advanced Mathematics (Pure, Mechanics and Probability & Statistics) (A Level) 9709
- Recommended Prerequisites: none
- Credits: AS Level (8163): 2 semester course, 1 credit per semester
- Counts as a Mathematics Course for all diplomas
- Qualifies as a quantitative reasoning course

8167 Cambridge Advanced Further Mathematics (Further Pure 1 & Further Probability & Statistics) (AS Level) 9231
(CA AS Pure1&Stats FURTHER MATH)

Cambridge Advanced AS Level Further Mathematics develops a set of transferable skills. These include the skill of working with mathematical information, as well as the ability to think logically and independently, consider accuracy, model situations mathematically, analyze results, and reflect on findings. Learners can apply these skills across a wide range of subjects and these skills equip them well for progression to higher education or directly into employment. Knowledge of the whole content of the Cambridge International A Level Mathematics 9709 syllabus (Pure, Mechanics and Probability & Statistics) is assumed as a prerequisite.

- Recommended Grade: 11, 12
- Required Prerequisites: 8157 Cambridge Advanced Mathematics (Pure, Mechanics and Probability & Statistics) (A Level) 9709
- Recommended Prerequisites: none
- Credits: AS Level (8167): 2 semester course, 1 credit per semester
- Counts as a Mathematics Course for all diplomas
- Qualifies as a quantitative reasoning course

8169 Cambridge Advanced Mathematics (Pure and Mechanics) (AS Level) 9709
(CA AS Pure&Mech MATH)

Cambridge Advanced A Level Mathematics develops a set of transferable skills. These include the skill of working with mathematical information, as well as the ability to think logically and independently, consider accuracy, model situations mathematically, analyze results, and reflect on findings. Learners can apply these skills across a wide range of subjects and these skills equip them well for progression to higher education or directly into employment.

At AS level, teachers can choose from three different routes to Cambridge Advanced AS Level Mathematics: Pure Mathematics only, Pure Mathematics and Mechanics, or Pure Mathematics and Probability & Statistics. This course will focus on Pure Mathematics and Mechanics applications.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Algebra II or Integrated Mathematics III or IGCSE Math
- Credits: AS Level (8169): 2 semester course, 1 credit per semester
- Counts as a Mathematics Course for all diplomas
- Qualifies as a quantitative reasoning course

8166 Cambridge Advanced Music (A Level) 9483 (CA A MUSIC)

Cambridge Advanced AS and A Level Music encourages learners to develop their musical skills in a variety of music styles and traditions and build on their musical interests. Learners are encouraged to listen, compose and perform with understanding, analysis and confident communication. They learn to become independent and critical thinkers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: A Level (8166): 2 semester course 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills Fine Arts requirement for Core 40 with Academic Honors Diploma
- Laboratory course

8164 Cambridge Advanced Music (AS Level) 9483 (CI AS MUSIC)

Cambridge Advanced AS and A Level Music encourages learners to develop their musical skills in a variety of music styles and traditions and build on their musical interests. Learners are encouraged to listen, compose and perform with understanding, analysis and confident communication. They learn to become independent and critical thinkers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: AS Level (8164): 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills Fine Arts requirement for Core 40 with Academic Honors Diploma
- Laboratory course

8165 Cambridge Advanced Further Mathematics (Further Pure 2 & Further Probability & Statistics) (A Level) 9231 (CA A Pure2&Stats FURTHER MATH)

Cambridge Advanced A Level Further Mathematics develops a set of transferable skills. These include the skill of working with mathematical information, as well as the ability to think logically and independently, consider accuracy, model situations mathematically, analyze results, and reflect on findings. Learners can apply these skills across a wide range of subjects and these skills equip them well for progression to higher education or directly into employment.

- Recommended Grade: 11, 12
- Required Prerequisites: 8167 Cambridge Advanced Further Mathematics (Further Pure 1 and Further Probability & Statistics) (AS Level) 9231
- Recommended Prerequisites: none
- Credits: A Level (8165): 2 semester course, 1 credit per semester
- Counts as a Mathematics Course for all diplomas
- Qualifies as a quantitative reasoning course

8161 Cambridge Advanced Further Mathematics (Further Pure 2 & Further Mechanics) (A Level) 9231
(CA A Pure2&Mech FURTHER MATH)

Cambridge Advanced A Level Further Mathematics develops a set of transferable skills. These include the skill of working with mathematical information, as well as the ability to think logically and independently, consider accuracy, model situations mathematically, analyze results, and reflect on findings. Learners can apply these skills across a wide range of subjects and these skills equip them well for progression to higher education or directly into employment.

- Recommended Grade: 11, 12
- Required Prerequisites: 8163 Cambridge Advanced Further Mathematics (Further Pure 1 and Further Mechanics) (AS Level) 9231
- Recommended Prerequisites: none
- Credits: A Level (8161): 2 semester course, 1 credit per semester
- Counts as a Mathematics Course for all diplomas
- Qualifies as a quantitative reasoning course

8172 Cambridge Advanced A Level Physics 9702 (L)
(CI A PHYSICS)

Cambridge International AS and A Level Physics builds on the skills acquired at Cambridge IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, a section on some current applications of physics, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination. The emphasis throughout is on the understanding of concepts and the application of physics ideas in novel contexts as well as on the acquisition of knowledge.

- Recommended Grade: 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: A Level (8172): 2 semester course 1 credit per semester
- Fulfills a science (physical) course requirement for all diplomas
- Qualifies as a quantitative reasoning course

8174 Cambridge Advanced AS Level Physics 9702 (L)
(CI AS PHYSICS)

Cambridge International AS and A Level Physics builds on the skills acquired at Cambridge IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, a section on some current applications of physics, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination. The emphasis throughout is on the understanding of concepts and the application of physics ideas in novel contexts as well as on the acquisition of knowledge.

- Recommended Grade: 12
- Required Prerequisites: none
- Recommended Prerequisites: Physics I, Calculus (can be taken concurrently)
- Credits: AS Level (8174): 2 semester course, 1 credit per semester
- Counts as a Science Course for all diplomas
- Counts as an elective for all diplomas
- Qualifies as a quantitative reasoning course

8178 Cambridge Advanced Psychology (A Level) 9990 (CA A PSYCH)

Cambridge International AS and A Level Psychology learners develop their appreciation of the subject by exploring the ways in which psychology is conducted. As part of their studies, learners also review important research; this provides an insight into the ways in which psychology has been applied, thereby leading to a better understanding of key approaches, research methods and issues and debates. The syllabus reflects four core areas of psychology, namely biological, cognitive, learning and social; it also relates psychology to abnormality, consumer behavior, health and organizations.

- Recommended Grade: 11, 12
- Required Prerequisites: 8178 Cambridge Advanced Psychology (AS Level) 9990
- Recommended Prerequisites: none
- Credits: A Level (8178): 2 semester course 1 credit per semester
- Counts as an elective for all diplomas

8176 Cambridge Advanced Psychology (AS Level) 9990 (CA AS PSYCH)

Cambridge International AS and A Level Psychology learners develop their appreciation of the subject by exploring the ways in which psychology is conducted. As part of their studies, learners also review important research; this provides an insight into the ways in which psychology has been applied, thereby leading to a better understanding of key approaches, research methods and issues and debates. The syllabus reflects four core areas of psychology, namely biological, cognitive, learning and social; it also relates psychology to abnormality, consumer behavior, health and organizations.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: AS Level (8176): 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas

8182 Cambridge Advanced A Level Sociology 9699 (CA A SOCIO)

In a rapidly changing world, Cambridge International AS and A Level Sociology offers learners the opportunity not only to explore the processes that are shaping current trends, but also to develop an understanding of the complexity and diversity of human societies and their continuities with the past. The study of sociology stimulates awareness of contemporary social, cultural and political issues, and focuses on the importance of examining these issues in a rigorous, reasoned and analytical way.

- Recommended Grade: 11, 12
- Required Prerequisites: 8182 Cambridge Advanced Sociology (AS Level) 9699
- Recommended Prerequisites: none
- Credits: A Level (8182): 2 semester course, 1 credit per semester

- Counts as an elective for all diplomas

8180 Cambridge Advanced AS Level Sociology 9699 (CA AS SOCIO)

In a rapidly changing world, Cambridge International AS and A Level Sociology offers learners the opportunity not only to explore the processes that are shaping current trends, but also to develop an understanding of the complexity and diversity of human societies and their continuities with the past. The study of sociology stimulates awareness of contemporary social, cultural and political issues, and focuses on the importance of examining these issues in a rigorous, reasoned and analytical way.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: AS Level (8180): 2 semester course 1 credit per semester
- Counts as an elective for all diplomas

8184 Cambridge Advanced Thinking Skills (A Level) 9694 (CA A TSKILLS)

Thinking Skills develops a set of transferable skills, including critical thinking, reasoning and problem solving, that students can apply across a wide range of subjects and complex real-world issues. The syllabus enables students to develop their ability to analyze unfamiliar problems, devise problem solving strategies, and evaluate the diverse ways a problem may be solved. During a Thinking Skills course, students learn to put their personal views aside in favor of examining and evaluating the evidence. Students learn how to make informed and reasoned decisions and construct evidence-based arguments. These independent thinking skills build confidence and equip students with a toolkit for tackling complex and unfamiliar subjects, essential for successful progression to higher education or into professional employment.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: 8184 Cambridge Advanced Thinking Skills (AS Level) 9694
- A Level (8184): 2 semester course 1 credit per semester
- Counts as an elective for all diplomas
- Qualifies as a quantitative reasoning course

8186 Cambridge Advanced Thinking Skills (AS Level) 9694 (CA AS TSKILLS)

Thinking Skills develops a set of transferable skills, including critical thinking, reasoning and problem solving, that students can apply across a wide range of subjects and complex real-world issues. The syllabus enables students to develop their ability to analyze unfamiliar problems, devise problem solving strategies, and evaluate the diverse ways a problem may be solved. During a Thinking Skills course, students learn to put their personal views aside in favor of examining and evaluating the evidence. Students learn how to make informed and reasoned decisions and construct evidence-based arguments. These independent thinking skills build confidence and equip students with a toolkit for tackling complex and unfamiliar subjects, essential for successful progression to higher education or into professional employment.

- Recommended Grade: 11, 12

- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: AS Level (8186): 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Qualifies as a quantitative reasoning course

8188 Cambridge Advanced Law (A Level) 9084 (CA A LAW)

The main aim of the Cambridge International AS and A Level Law syllabus is to provide learners with an introduction to the main principles of the law as it is practiced in England and Wales. As a result, learners build their knowledge and understanding of the English legal system, and develop a critical awareness of its structure, personnel and operation. The syllabus also focuses on two areas of substantive law (contract and tort) and encourages learners to develop skills of analysis and problem-solving through the application of legal rules.

- Recommended Grade: 11, 12
- Required Prerequisites: 8190 Cambridge Advanced Law (AS Level) 9084
- Recommended Prerequisites: none
- Credits: A Level (8188): 2 semester course 1 credit per semester
- Counts as an elective for all diplomas

8190 Cambridge Advanced Law (AS Level) 9084 (CA AS LAW)

The main aim of the Cambridge International AS and A Level Law syllabus is to provide learners with an introduction to the main principles of the law as it is practiced in England and Wales. As a result, learners build their knowledge and understanding of the English legal system, and develop a critical awareness of its structure, personnel and operation. The syllabus also focuses on two areas of substantive law (contract and tort) and encourages learners to develop skills of analysis and problem-solving through the application of legal rules.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: United States Government
- Credits: AS Level (8190): 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas

8192 Cambridge Advanced Chinese (A Level) 9715 (CA A CHINESE)

Cambridge Advanced A Level Chinese builds on the language skills gained at Cambridge IGCSE, Cambridge O Level or Cambridge Advanced AS Level, and is the ideal foundation for university-level study, or to improve career prospects.

Learners gain an understanding of how to use the language in a variety of situations. They will be expected to handle texts and other source materials, extracting information in order to respond to specific tasks. Through their studies, learners can expect to achieve greater fluency, accuracy and confidence in the language. They will also learn how to translate material from English into Chinese.

- Recommended Grade: 11, 12
- Required Prerequisites: Chinese I, II, and III and/or IGCSE and 8194 Chinese Language AS level

- Recommended Prerequisites: none
- Credits: A Level (8192): 2 semester course 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 Academic Honors Diploma

8194 Cambridge Advanced Chinese – Language (AS Level) 8681 (CA AS CHINESE)

The Cambridge Advanced AS Level Chinese syllabus enables learners to achieve greater fluency, accuracy and confidence in the written language, and improve their communication skills. They learn how to improve their use of Chinese in a variety of situations, understanding how to read texts and other source materials, and how to extract information, and respond to questions in writing.

- Recommended Grade: 11, 12
- Required Prerequisites: Chinese I, II, and III or IGCSE Chinese language
- Recommended Prerequisites: none
- Credits: AS Level (8194): 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 Academic Honors Diploma

8196 Cambridge Advanced Classical Studies (A Level) 9274 (CA A CLASSTUD)

Cambridge Advanced AS and A Level Classical Studies provides learners with an understanding of the civilizations of ancient Greece and Rome, and an appreciation of the diversity of the Classical world. The syllabus opens learners to a range of original sources (textual, material archaeological) and develops their abilities to interpret, analyze and evaluate a range of evidence. The syllabus is flexible and wide-ranging, allowing teachers to build a course that reflects their learners' interests and staff specialisms.

- Recommended Grade: none
- Required Prerequisites: 8198 Cambridge Advanced Classical Studies (AS Level) 9274
- Recommended Prerequisites: none
- Credits: A Level (8196): 2 semester course 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills the Geography History of the World/World History and Civilization graduation requirement for all diplomas

8198 Cambridge Advanced Classical Studies (AS Level) 9274 (CA AS CLASSTUD)

Cambridge Advanced AS and A Level Classical Studies provides learners with an understanding of the civilizations of ancient Greece and Rome, and an appreciation of the diversity of the Classical world. The syllabus opens learners to a range of original sources (textual, material archaeological) and develops their abilities to interpret, analyze and evaluate a range of evidence. The syllabus is flexible and wide-ranging, allowing teachers to build a course that reflects their learners' interests and staff specialisms.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: AS Level (8198): 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills the Geography History of the World/World History and Civilization graduation requirement for all diplomas

8200 Cambridge Advanced French (A Level) 9716 (CA A FRENCH)

Cambridge Advanced A Level French builds on the language skills gained at Cambridge IGCSE, Cambridge O Level or Cambridge Advanced AS Level, and is the ideal foundation for university-level study, or to improve career prospects. Learners will gain an understanding of how to use the language in a variety of situations. They will be expected to handle texts and other source materials, extracting information in order to respond to specific tasks. Through their studies, learners can expect to achieve greater fluency, accuracy and confidence in the language.

- Recommended Grade: 11, 12
- Required Prerequisites: French I, II and III or IGCSE and 8202 Cambridge Advanced French (AS Level)
- Recommended Prerequisites: none
- Credits: A Level (8200): 2 semester course 1 credit per semester
- Fulfills a World Language requirement for all diplomas

8202 Cambridge Advanced French – Language (AS Level) 8682 (CA AS FRENCH LANGUAGE)

The Cambridge Advanced AS Level French syllabus enables learners to achieve greater fluency, accuracy and confidence in the language as it is spoken and written and improve their communication skills. They will learn how to improve their use of French in a variety of situations, understanding how to read texts and other source materials, extract information, initiate conversations and respond to questions both orally and in writing.

- Recommended Grade: 11, 12
- Required Prerequisites: French I and II or IGCSE French
- Recommended Prerequisites: none
- Credits: AS Level (8202): 2 semester course, 1 credit per semester
- Fulfills a World Language requirement for all diplomas

8206 Cambridge Advanced German (A Level) 9717 (CA A GERMAN)

Cambridge Advanced A Level German builds on the language skills gained at Cambridge IGCSE, Cambridge O Level or Cambridge Advanced AS Level, and is the ideal foundation for university-level study, or to improve career prospects. Learners will gain an understanding of how to use the language in a variety of situations. They will be expected to handle texts and other source materials, extracting information in order to respond to specific tasks. Learners can expect to achieve greater fluency, accuracy and confidence in the language.

- Recommended Grade: 11, 12
- Required Prerequisites: German I, II and III or IGCSE and AS Level German
- Recommended Prerequisites: none
- Credits: A Level (8206): 2 semester course 1 credit per semester
- Fulfills a World Language requirement for all diplomas

8208 Cambridge Advanced German – Language (AS Level) 8683 (CA AS GERMAN)

The Cambridge Advanced AS Level German syllabus enables learners to achieve greater fluency, accuracy and confidence in the language as it is spoken and written and improve their communication skills. They will

learn how to improve their use of German in a variety of situations, understanding how to read texts and other source materials, and how to extract information, initiate conversations and respond to questions both orally and in writing.

- Recommended Grade: 11, 12
- Required Prerequisites: German I, II and III or IGCSE German Language
- Recommended Prerequisites: none
- Credits: AS Level (8208): 2 semester course, 1 credit per semester
- Fulfills a World Language requirement for all diplomas

8210 Cambridge Advanced Japanese – Language (AS Level) 8281 (CA AS JAPANESE)

The Cambridge Advanced AS Level Japanese syllabus enables learners to achieve greater fluency, accuracy and confidence in the language as it is spoken and written and improve their communication skills. They will learn how to improve their use of Japanese in a variety of situations, understanding how to read texts and other source materials, and how to extract information, initiate conversations and respond to questions both orally and in writing.

- Recommended Grade: 11, 12
- Required Prerequisites: Japanese I, II or IGCSE Japanese Language
- Recommended Prerequisites: none
- Credits: AS Level (8210): 2 semester course, 1 credit per semester
- Fulfills a World Language requirement for all diplomas

8212 Cambridge Advanced Portuguese (A Level) 9718 (CA A PORTUGUESE)

Cambridge Advanced A Level Portuguese builds on the language skills gained at Cambridge IGCSE, Cambridge O Level or Cambridge Advanced AS Level, and is the ideal foundation for university-level study, or to improve career prospects.

Learners gain an understanding of how to use the language in a variety of situations. They will be expected to handle texts and other source materials, extracting information in order to respond to specific tasks. Through their studies, learners can expect to achieve greater fluency, accuracy and confidence in the language.

- Recommended Grade: 11, 12
- Required Prerequisites: Portuguese I, II and III or IGCSE Portuguese Language and 8214 Cambridge Advanced Portuguese Language (AS Level) 8684
- Recommended Prerequisites: none
- Credits: A Level (8212): 2 semester course 1 credit per semester
- Fulfills a World Language requirement for all diplomas

8214 Cambridge Advanced Portuguese – Language (AS Level) 8684 (CA AS PORTUGUESE)

The Cambridge Advanced AS Level Portuguese syllabus enables learners to achieve greater fluency, accuracy and confidence in the language as it is spoken and written and improve their communication skills. They will learn how to improve their use of Portuguese in a variety of situations, understanding how to read texts and other source materials, and how to extract information, initiate conversations, and respond to questions both orally and in writing.

- Recommended Grade: 11, 12
- Required Prerequisites: Portuguese I, II and III or IGCSE Portuguese Language
- Recommended Prerequisites: none
- Credits: AS Level (8214): 2 semester course, 1 credit per semester
- Fulfills a World Language requirement for all diplomas

8216 Cambridge Advanced Spanish – Language (AS Level) 8685 (CA AS SPAN LANG)

The Cambridge Advanced AS Level Spanish syllabus enables learners to achieve greater fluency, accuracy and confidence in the language as it is spoken and written, and improve their communication skills. They will learn how to improve their use of Spanish in a variety of situations, understanding how to read texts and other source materials, extract information, initiate conversations and respond to questions both orally and in writing.

- Recommended Grade: 11, 12
- Required Prerequisites: Spanish I, II and III or IGCSE Spanish Language
- Recommended Prerequisites: none
- Credits: AS Level (8216): 2 semester course, 1 credit per semester
- Fulfills a World Language requirement for all diplomas

8218 Cambridge Advanced Spanish – Literature (AS Level) 8673 (CA AS SPAN LIT)

Learners following the Cambridge Advanced AS Level Spanish Literature syllabus will study a series of works from Spanish literature. The aim is to understand these texts and the issues raised by the authors, and to develop the skills to communicate this understanding in a clear and focused way. Learners will study a variety of texts, including novels, poems and plays, looking both at the way the authors have conveyed their ideas, and discussing the wider issues that each text raises.

- Recommended Grade: 11, 12
- Required Prerequisites: Spanish I, II and III or IGCSE Spanish Language and IGCSE Spanish Literature
- Recommended Prerequisites: none
- Credits: AS Level (8218): 2 semester course, 1 credit per semester
- Fulfills a World Language requirement for all diplomas

8220 Cambridge Advanced Travel and Tourism (A Level) 9395 (CA A TRAVEL)

Cambridge International AS and A Level Travel and Tourism (9395) is suitable for both Cambridge International A Level candidates and for those seeking a more specialized study of this subject. This syllabus encourages learners to appreciate the scale and importance of the travel and tourism industry in the world and recognize the positive and negative impacts the industry may have on people, environments, and economies. Learners discover that the travel and tourism industry is dynamic in nature and how the industry responds to change: for example, external factors such as changing consumer needs and expectations, developments in ICT. The syllabus encourages learners to develop practical and technical skills relevant to the industry, enabling them to deal with a range of complex situations and problems.

- Recommended Grade: 11, 12
- Required Prerequisites: Principles of Marketing
- Recommended Prerequisites: none

- Credits: A Level (8220): 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas

8222 Cambridge Advanced Travel and Tourism (AS Level) 9395 (CA AS TRAVEL)

Cambridge Advanced AS and A Level Travel and Tourism (9395) is suitable for both Cambridge Advanced A Level candidates and for those seeking a more specialized study of this subject. This syllabus encourages learners to appreciate the scale and importance of the travel and tourism industry in the world and recognize the positive and negative impacts the industry may have on people, environments and economies. Learners discover that the travel and tourism industry is dynamic in nature and how the industry responds to change: for example, external factors such as changing consumer needs and expectations, developments in ICT. The syllabus encourages learners to develop practical and technical skills relevant to the industry, enabling them to deal with a range of complex situations and problems.

- Recommended Grade: 11, 12
- Required Prerequisites: Principles of Marketing
- Recommended Prerequisites: none
- Credits: AS Level (8222): 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas

8228 Cambridge Advanced Art and Design (A Level) 9479 (CA A ARTDESIGN)

Cambridge International AS and A Level Travel and Tourism (9395) is suitable for both Cambridge International A Level candidates and for those seeking a more specialized study of this subject. This syllabus encourages learners to appreciate the scale and importance of the travel and tourism industry in the world and recognize the positive and negative impacts the industry may have on people, environments, and economies. Learners discover that the travel and tourism industry is dynamic in nature and how the industry responds to change: for example, external factors such as changing consumer needs and expectations, developments in ICT. The syllabus encourages learners to develop practical and technical skills relevant to the industry, enabling them to deal with a range of complex situations and problems.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: 8230 Cambridge Advanced Art and Design (AS Level) 9479
- Recommended Prerequisites: none
- Credits: A Level (8228): 2 semester course 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma

8230 Cambridge Advanced Art and Design (AS Level) 9479 (CA AS ARTDESIGN)

The Cambridge Advanced A Level Art and Design syllabus considers expression and communication. Learners gain an understanding of visual perception and aesthetic experience, and the ways in which art and design creates a language of its own.

Most of the work for this syllabus is practical or studio based, so that learners can develop their abilities of observation and analysis of the visual world, sensitivity, skill, personal expression and imagination. They also learn how to relate their skills to an enhanced knowledge of their own cultures, past and present, as well as an appreciation of practical design problems.

- Recommended Grade: 9, 10, 11, 12

- Required Prerequisites: none
- Recommended Prerequisites: IGCSE Art & Design
- Credits: AS Level (8230): 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma

8232 Cambridge Advanced Environmental Management (AS Level) 8291 (CA AS ENV MGMT)

This AS syllabus covers environmental issues and their management, especially the human aspect. Through their studies, learners gain an understanding of environmental resources and their human exploitation, and the goal of sustainable environmental management. Learners also consider a range of case study material which can feature local, regional, or global examples. Although Cambridge International AS Level Environmental Management extends and complements the relevant Cambridge IGCSE syllabuses, learners do not need to have studied the subject before starting the course.

- Recommended Grade: 12
- Required Prerequisites: none
- Recommended Prerequisites: Biology and Chemistry
- Credits: AS Level (8232): 2 semester course, 1 credit per semester
- Counts as a Science Course for all diplomas
- Qualifies as a quantitative reasoning course

8234 Cambridge Advanced Digital Media and Design (A Level) 9481 (CA A DIGMD)

Cambridge International AS & A Level Digital Media & Design is a new addition to the Cambridge International creative subject suite. This syllabus is for learners who want to explore a range of processes and techniques in digital media. The subject content is grouped into three broad areas of study: digital photography, moving image through film and animation, and mobile and multimedia applications including games design. You can structure a course around a single area of study or create a course that includes a combination of two or three areas of study. Cambridge International AS & A Level Digital Media & Design helps learners develop the knowledge and skills that will prepare them for further study and to work in a collaborative industry. They will develop an awareness of the world of digital media and design, and the factors and contexts that influence it. Learners will develop creative processes and the ability to critically evaluate their work to continually review and refine ideas, learn how to combine innovative approaches and techniques to solve problems creatively, and expand their knowledge of digital media by exploring different designers, processes, and concepts.

- Recommended Grade: 11, 12
- Required Prerequisites: 8236 Cambridge Advanced Digital Media & Design (AS Level) 9481
- Recommended Prerequisites: none
- Credits: A Level (8234): 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas

8236 Cambridge Advanced Digital Media and Design (AS Level) 9481 (CA AS DIGMD)

Cambridge International AS & A Level Digital Media & Design is a new addition to the Cambridge International creative subject suite. This syllabus is for learners who want to explore a range of processes and techniques in digital media. The subject content is grouped into three broad areas of study; digital photography, moving

image through film and animation, and mobile and multimedia applications including games design. You can structure a course around a single area of study or create a course that includes a combination of two or three areas of study. Cambridge International AS & A Level Digital Media & Design helps learners develop the knowledge and skills that will prepare them for further study and to work in a collaborative industry. They will develop an awareness of the world of digital media and design, and the factors and contexts that influence it. Learners will develop creative processes and the ability to critically evaluate their work to continually review and refine ideas, learn how to combine innovative approaches, and techniques to solve problems creatively, and expand their knowledge of digital media by exploring different designers, processes and concepts.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: AS Level (8236): 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas

2601 A Cambridge International A Level Drama

Cambridge Advanced AS & A Level Drama encourages learners to develop their skills in performing, devising and researching a wide range of theatrical styles and genres. They learn to communicate with an audience through practical and creative work on performance texts and their own devised material, both as individuals and in groups. Underpinned by theoretical and practical study, they learn to research, analyze, create and interpret, and to become skilled, well-informed and reflective theatrical practitioners who enjoy drama. Cambridge Advanced AS & A Level Drama provides a foundation for the further study of drama or related courses in higher education.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: 2062 Cambridge Advanced Drama (AS Level) 9482
- Credits: A Level (2602): 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas

2062 A Cambridge International AS Level Drama

Cambridge Advanced AS & A Level Drama encourages learners to develop their skills in performing, devising and researching a wide range of theatrical styles and genres. They learn to communicate with an audience through practical and creative work on performance texts and their own devised material, both as individuals and in groups. Underpinned by theoretical and practical study, they learn to research, analyze, create and interpret, and to become skilled, well-informed and reflective theatrical practitioners who enjoy drama. Cambridge Advanced AS & A Level Drama provides a foundation for the further study of drama or related courses in higher education.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: IGCSE Drama
- Credits: AS Level (2061): 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diploma

English/Language Arts Courses

120 Developmental Reading
(DEV READING)

Developmental Reading is a supplemental course that provides students with individualized instruction designed to support success in completing coursework aligned with the Indiana Academic Standards for English/Language Arts focusing on the Reading Standards for Literature and Nonfiction. All students should be concurrently enrolled in an English course in which class work will address all the Indiana Academic Standards.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester, 8 credits maximum. This course allows for successive semesters of instruction for students who need additional support in vocabulary development and reading comprehension.
- Counts as an elective for all diplomas

1120 Applied Developmental Reading
(DEV READING)

Applied Developmental Reading is a supplemental course that provides students with individualized, specially designed instruction to support success in completing coursework aligned with the Indiana Academic Standards or Content Connectors for English/Language Arts.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 4 units maximum
- Counts as an elective for the Certificate of Completion

1014 CCR Bridge: Literacy Ready
(CCR BRG)

CCR Bridge: Literacy Ready is an innovative, dynamic course built to help students master the literacy skills needed for three core subject areas —English, social science and science. CCR Bridge: Literacy Ready consists of eight units: three in history, three in English and two in science. Content of each of the disciplines is at the forefront of the curriculum, while disciplinary literacy skills are emphasized through reading and writing assignments based on the content. The focus is on truly understanding how to read and interpret texts in the discipline on a college level. Students in this course want to be college bound but have not met the requirements necessary to fulfill that goal. Schools are expected to embed Indiana Academic Standards for English/Language Arts into the curriculum.

- Recommended Grade: 12
- Required Prerequisites: none
- Recommended Prerequisites: Must be students who want to attend college, but who have not passed the Grade 10 English ISTEP+ (or old English ECA) and have scored below a 45 on the PSAT/ OR students who score below proficient on a diagnostic test.
- Credits: 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1002 English 9
(ENG 9)

English 9, an integrated English course based on the Indiana Academic Standards for English/Language Arts in Grades 9-10, is a study of language, literature, composition, and oral communication, focusing on literature within an appropriate level of complexity for this grade band. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to representative works of historical or cultural significance in classic and contemporary literature balanced with nonfiction. Students write responses to literature, expository (informative), narrative, and argumentative/persuasive compositions, and sustained research assignments. Students deliver grade-appropriate oral presentations with attention to audience and purpose and access, analyze, and evaluate online information.

- Recommended Grade: 9
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1002 Applied English 9
(ENG 9)

Applied English 9 is an integrated English course based on the Indiana Content Connectors for English/Language Arts in Grades 9-10, is a study of language, literature, composition, and communication, focusing on literature and nonfiction within an appropriate level of complexity for each individual student. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to a variety of texts. Students form responses to literature, expository (informative), narrative, and argumentative/persuasive compositions, and research tasks when appropriate. Students deliver ability-appropriate presentations with attention to audience and purpose and access, analyze, and evaluate online information.

- Recommended Grade: 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 4 units maximum
- Counts as an English/Language Arts Requirement for the Certificate of Completion

1004 English 10
(ENG 10)

English 10, an integrated English course based on the Indiana Academic Standards for English/Language Arts in Grades 9- 10, is a study of language, literature, composition, and oral communication, focusing on literature with an appropriate level of complexity for this grade band. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to representative works of historical or cultural significance in classic and contemporary literature balanced with nonfiction. Students write responses to literature, expository (informative) and argumentative/persuasive compositions, and sustained research assignments. Students deliver grade-appropriate oral presentations with attention to audience and purpose and access, analyze, and evaluate online information.

- Recommended Grade: 10, 11
- Required Prerequisites: none

- Recommended Prerequisites: English 9 or teacher recommendation
- Credits: 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1004 Applied English 10
(ENG 10)

Applied English 10, an integrated English course based on the Indiana Content Connectors for English/Language Arts in Grades 9-10, is a study of language, literature, composition, and communication, focusing on literature and nonfiction within an appropriate level of complexity for each individual student. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to a variety of texts. Students form responses to literature, expository (informative), narrative, and argumentative/persuasive compositions, and research tasks when appropriate. Students deliver appropriate presentations with attention to audience and purpose and access, analyze, and evaluate online information.

- Recommended Grade: 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied units: 4 units maximum
- Counts as an English/Language Arts Requirement for the Certificate of Completion

1006 English 11
(ENG 11)

English 11, an integrated English course based on the Indiana Academic Standards for English/Language Arts in Grades 11-12, is a study of language, literature, composition, and oral communication focusing on literature with an appropriate level of complexity for this grade band. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to representative works of historical or cultural significance appropriate in classic and contemporary literature balanced with nonfiction. Students write narratives, responses to literature, academic essays (e.g. analytical, persuasive, expository, summary), and more sustained research assignments incorporating visual information in the form of pictures, graphs, charts and tables. Students write and deliver grade-appropriate multimedia presentations and access, analyze, and evaluate online information.

- Recommended Grade: 11
- Required Prerequisites: none
- Recommended Prerequisites: English 9 and English 10 or teacher recommendation
- Credits: 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1006 Applied English 11
(ENG 11)

Applied English 11, an integrated English course based on the Indiana Content Connectors English/Language Arts in Grades 9-10 and applicable employability skills. This course is a study of language, literature, composition, and communication focusing on literature with an appropriate level of complexity for each individual student. Students analyze, compare and evaluate a variety of classic and contemporary literature and nonfiction texts, including those of historical or cultural significance. Students write narratives, responses to literature, academic responses (e.g. analytical, persuasive, expository, summary), and research tasks when appropriate. Students analyze and create visual

information in the form of pictures, graphs, charts, and tables. Students write and deliver grade-appropriate multimedia presentations and access online information.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied units: 4 units maximum
- Counts as an English/Language Arts Requirement for the Certificate of Completion

1008 English 12
(ENG 12)

English 12, an integrated English course based on the Indiana Academic Standards for English/Language Arts for Grades 11- 12, is a study of language, literature, composition, and oral communication focusing on an exploration of point of view or perspective across a wide variety of genres. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to representative works of historical or cultural significance in classic and contemporary literature balanced with nonfiction. Students write narratives, responses to literature, academic essays (e.g. analytical, persuasive, expository, summary), and more sustained research assignments incorporating visual information in the form of pictures, graphs, charts, and tables. Students write and deliver grade-appropriate multimedia presentations and access, analyze, and evaluate online information.

- Recommended Grade: 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, and English 11 or teacher recommendation
- Credits: 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1008 Applied English 12
(ENG 12)

Applied English 12, an integrated English course based on the Indiana Content Connectors English/Language Arts in Grades 9-10 and applicable employability skills. This course is a study of language, literature, composition, and communication focusing on literature with an appropriate level of complexity for each individual student. Students analyze, compare, and evaluate a variety of classic and contemporary literature and nonfiction texts, including those of historical or cultural significance. Students write narratives, responses to literature, academic responses (e.g. analytical, persuasive, expository, summary), and research tasks when appropriate. Students analyze and create visual information in the form of pictures, graphs, charts, and tables. Students write and deliver grade-appropriate multimedia presentations and access online information.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied units: 4 units maximum
- Counts as an English/Language Arts Requirement for the Certificate of Completion
- Course may be used for students in 18-22 year-old programming.

1012 English as a New Language
(ENL)

English as a New Language, an integrated English course based on the WIDA English Language Development (ELD) Standards, is the study of language, literature, composition and oral communication for English learners (ELs) so that they improve their proficiency in listening, speaking, reading, writing and comprehension of standard English. Students study English vocabulary used in fictional texts and content-area texts, speak and write English so that they can function within the regular school setting and an English-speaking society, and deliver oral presentations appropriate to their respective levels of English proficiency.

- Recommended Grade: Recommended Grade: 9, 10, 11, and 12. The intent of the ENL course is to move students as successfully, smoothly, and rapidly as possible into the Core 40 English courses offered in grades 9-12.
- Required Prerequisites: none
- Recommended Prerequisites: English proficiency placement test results
- English/Language Arts credit (1012): If ENL course work addresses Indiana's Academic Standards for English/Language Arts and is based on general ELA curriculum and student's Individualized Learning Plan, up to 8 credits accrued can be counted as the required English/ Language Arts credits for all diplomas.
- Fulfills an English Language Arts requirement for all diplomas
- World Language credit (2188): If ENL course work addresses Indiana's Academic
- Standards for World Languages and is taken concurrently with another
- English/Language Arts course, up to 8 credits accrued may count as World Language credits for all diplomas.

1060 Etymology
(ETYMOLOGY)

AP English Literature and Composition is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The course engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: 4 credits in English Language Arts
- Credits: 1 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas
- NOTE: Students are strongly encouraged to combine this course with a literature or composition course that they take before, concurrently, or after the course.

1062 Grammar
(GRAMMAR)

Grammar, a course based on the Indiana Academic Standards for English/Language Arts, is a study of the English language system. Students examine and apply the conventions of oral and written expression that include syntax, usage, punctuation, and spelling. Students learn grammatical terminology, study grammar in the context of reading and writing, and apply grammatical concepts in writing and speaking.

- Recommended Grade: 9, 10, 11, 12

- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas
- NOTE: Students are strongly encouraged to combine this course with a literature or composition course that they take before, concurrently, or after the course.

1080 Journalism (JOURNALISM)

Journalism, a course based on the Indiana Academic Standards for English/Language Arts and the Indiana High School Journalism Standards, is a study of news elements, journalism history, First Amendment law, ethics, fact, and opinion, copy editing, news, and features as they apply to print and digital media products. It includes a comparison study of journalistic writing to other types of English writing with practical application of news, features, editorials, reviews, columns, and digital media writing forms. For the second credit: Students continue to develop journalistic writing skills in addition to studying graphic design, advertising, public relations, photojournalism and emerging media development and design. By the end of the semester, students write, shoot, and design stories for print and digital media products.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester. Second credit may be subtitled Advanced to allow for a successive semester of instruction at an advanced level.
- English/Language Arts credit (1080): Journalism course work addresses the Indiana Academic Standards for English/Language Arts, the credits accrued can be counted as part of the eight (8) required English/Language Arts credits for all diplomas.
- Counts as an elective for all diplomas
- NOTE: This is not a student publications course. The designated school newspaper or yearbook course is Student Media (1086).

1010Language Arts Lab (LANG LAB)

Language Arts Lab is a supplemental course that provides students with individualized or small group instruction designed to support success in completing course work aligned with the Indiana Academic Standards for English/Language Arts focusing on the writing standards. All students should be concurrently enrolled in an English course in which class work will address all the Indiana Academic Standards.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 to 8 credits. This course allows for successive semesters of instruction for students who need additional support in any or all aspects of the writing standards.
- Counts as an elective for all diplomas

1010Applied Language Arts Lab (LANG LAB)

Applied Language Arts Lab is a supplemental course that provides students with individualized or small group instruction designed to support skills and content aligned to Indiana Academic Standards or Content Connectors for English/Language Arts. All students should be concurrently enrolled in an English course or have met the ELA requirements for the Certificate of Completion.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 4 units maximum
- Counts an elective for the Certificate of Completion

1064 Linguistics
(LINGUISTICS)

Linguistics, a language studies course based on the Indiana Academic Standards for English/Language Arts, is the study of language structures and patterns that enable humans to communicate an infinite number of ideas using a finite grammar and vocabulary. Students examine the terminology and sub-categories of linguistics as a field of study, including semantics, syntax, and morphology. Students analyze the psychological, social, and cultural factors that contribute to choices of structure and pattern by language users.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: 4 credits in English/Language Arts
- Credits: 1 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas
- NOTE: Students are strongly encouraged to combine this course with a literature or composition course that they take before, concurrently, or after the course.

1084 Digital Media
(Digital Media)

Digital Media, a course based on the Indiana Academic Standards for English/Language Arts and Media Literacy Standards, is a study of media literacy and production skills. This course examines the impact of informational, narrative, and persuasive media on everyday life. This course will focus on changes in media and includes practice in broadcast journalism, audio/visual storytelling, multimedia storytelling, as well as different platforms such as online and social media. Students will analyze local, national, and global media through the lens of law, ethics, and social responsibility. Students use course content to become knowledgeable consumers and producers of media. For the second credit: Students continue to develop media production skills in addition to continuing critical media analysis. By the end of the semester, students write and produce media projects.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester. Second credit may be subtitled Advanced to allow for a successive semester of instruction at an advanced level. English/Language Arts credit (1084): Digital Media course work addresses the Indiana Academic Standards for English/Language Arts, credits accrued can be counted as part of the eight (8) required English/Language Arts credits for all diplomas.
- Counts as an elective for all diplomas

1086 Student Media
(STDNT MEDIA)

Student Media, a course based on the High School Journalism Standards and the Student Media Standards, is the continuation of the study of Journalism. Students demonstrate their ability to do journalistic writing and design for high school media, including school newspapers, yearbooks, and a variety of other media formats. Students follow the ethical principles and legal boundaries that guide scholastic journalism. Students express themselves publicly with meaning and clarity for the purpose of informing, entertaining, or persuading. Students work on high school media staffs so that they may prepare themselves for career paths in journalism, communications, writing, or related fields.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Journalism, Digital Media, or teacher recommendation
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level or in different media types where defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills the Fine Arts requirement for the Core 40 with Academic Honors.
- NOTE: This is the designated School Media course, including newspaper and yearbook.

1020 American Literature
(AMER LIT)

American Literature, a course based on the Indiana Academic Standards for English/Language Arts, is a study of representative works and authors of the United States. Students read, analyze, evaluate, critique, and actively respond to a wide variety of literary genres that reflect American culture, including quality works of various ethnic and cultural minorities. Students compare readings and media from literature, history, and other subjects by demonstrating how the ideas and concepts presented in the works are interconnected, distinctly American, and important to an understanding of the development of the current culture. The course can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within the American Literature curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 to 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1022 Biblical Literature
(BIBLE LIT)

Biblical Literature, a course based on the Indiana Academic Standards for English/Language Arts, is a study of the Bible, viewed from a literary standpoint, as a source of a wide variety of literary patterns, themes, and conventions. Students examine the different books in relation to the various historical time frames of the books and in relation to related literature as it pertains to Biblical themes. Students read, discuss, and write about Biblical references (allusions) in both classical and modern literature, formation of a canonical Bible, inclusion of apocryphal and heretical writings, oral versus literate transmission of sacred history and doctrine, and questions and problems of interpretation. Courses can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 to 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1024 Biographies
(BIOGRPHIES)

Biographies, a course based on the Indiana Academic Standards for English/Language Arts, is a study of outstanding examples of biographical literature from various historical eras, cultures, and authors (both men and women). Students examine autobiographies, legendary narratives of historical figures, and hagiographies (venerated persons). Students analyze works written for different purposes, such as moralistic, inspirational, entertainment, and cautionary. Students analyze the assumptions of the author and the relationship between the author and the subject of the biography in order to determine reliability and validity of the work. The course can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1026 Classical Literature
(CLASS LIT)

Classical Literature, a course based on the Indiana Academic Standards for English/Language Arts, is a study of Greek and Roman Empire literature by the major authors, such as Aristotle, Cicero, Dante, Euripides, Homer, Ovid, Plato, Plutarch, Sappho, Sophocles, St. Augustine, Virgil, and others. Students examine a variety of literary genres, such as tragedy, comedy, epic, lyric, novel, oratory, and others. Students analyze themes as they relate to the transition from oral to literate cultures, the emergence of cities and empires, the use of mythology, and the rise and fall of democracy. Students analyze how classical literary patterns, themes, and conventions have influenced modern literature. Course can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 to 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1054 Contemporary Literature
(CONTEM LIT)

Contemporary Literature, a course based on the Indiana Academic Standards for English/Language Arts, is a study of how post-1950s literature from around the world, such as North and South America, Europe and Great Britain, the Middle East, and post-colonial Africa and Asia, addresses contemporary issues. Students examine multiple genres to develop a sense of how particular genres are used today to represent ideas and events. Students analyze different theories and methods of textual criticism,

especially theories currently popular. Students analyze how the interpretations and themes of contemporary literature read in this course relate to the time period and to historical issues. Course can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 to 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1028 Dramatic Literature (DRAMA LIT)

Dramatic Literature, a course based on the Indiana Academic Standards for English/Language Arts, is a study of plays and literary art as different from other literary genres. Students view live, televised, or filmed productions and stage scenes from plays or scripts. Students examine tragedies, comedies, melodramas, musicals or operas created by important playwrights and screenwriters representing the literary movements in dramatic literature. Students analyze how live performance alters interpretation from text and how developments in acting and production have altered the way we interpret plays or scripts. Students analyze the relationship between the development of dramatic literature as entertainment and as a reflection of or influence on the culture. The course can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 or 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1030 English Literature (ENG LIT)

English Literature, a course based on the Indiana Academic Standards for English/Language Arts, is a study of representative works of the English-speaking authors associated with the Commonwealth of Nations, including England, Scotland, Ireland, Wales, Canada, Newfoundland, Australia, New Zealand, India, South Africa, Kenya, Botswana, and others. Students examine a wide variety of literary genres that reflect the English-speaking peoples from the Anglo-Saxon Period to the present. Students analyze how the ideas and concepts presented in the works are both interconnected and distinctly reflective of the cultures and the countries in which they were written. Courses can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 or 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1032 Ethnic Literature (ETHNIC LIT)

Ethnic Literature, a course based on the Indiana Academic Standards for English/Language Arts, is a study of literature focusing on specific multicultural issues produced by writers representing various ethnic cultures. Students examine works exploring ethnic experiences and ideas as well as the contributions of authors to multicultural themes. Students analyze the expressions of cultural identities within ethnic literature and how problems or issues of interest to a given group interconnect with national issues and history. Course can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 or 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1034 Film Literature (FILM LIT)

Film Literature, a course based on the Indiana Academic Standards for English/Language Arts, is a study of how literature is adapted for film or media and includes role playing as film directors for selected screen scenes. Students read about the history of film, the reflection or influence of film on the culture, and issues of interpretation, production and adaptation. Students examine the visual interpretation of literary techniques and auditory language in film and the limitations or special capacities of film versus text to present a literary work. Students analyze how films portray the human condition and the roles of men and women and the various ethnic or cultural minorities in the past and present. Courses can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1036 Genres of Literature (GENRES LIT)

Genres of Literature, a course based on the Indiana Academic Standards for English/Language Arts, is a study of various literary genres, such as poetry, dramas, novels, short stories, biographies, journals, diaries, essays, and others. Students examine a set or sets of literary works written in different genres that address similar topics or themes. Students analyze how each genre shapes literary understanding or experiences differently, how different genres enable or constrain the expression of ideas, how certain genres have had a stronger impact on the culture than others in different historical time periods, and what the most influential genres are in contemporary times. Course can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 or 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1038 Indiana Literature
(IND LIT)

Indiana Literature, a course based on the Indiana Academic Standards for English/Language Arts, is a study of works produced by those who were born in, raised, or lived most of their lives in Indiana and works about Indiana or its famous persons. Students examine representative works of various historical periods, works from the various literary movements, and works that reflect unique aspects of Indiana culture. Students analyze and evaluate contributions of Indiana literature to specific genres and to the body of American literature or media in the past and present. Course can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 or 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1082Library Media
(LBRY MEDIA)

Library Media is the study and application of procedures based on library science theory. Students examine the role of the library and technology in the current Information Age. Students use electronic resources for specific research needs and use multimedia presentation technology for practical applications.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as an elective for all diplomas

1040 Literary Movements
(LIT MVMTS)

Literary Movements, a course based on the Indiana Academic Standards for English/Language Arts, is a study of representative European or American literature produced during the historical time periods of Ancient Greece and Rome, the Middle Ages, the Renaissance, the Enlightenment, and the literary periods of Romanticism, Realism, Modernism, The Harlem Renaissance, and Contemporary Literature. Students examine a variety of literary genres, such as dramas, epic and lyric poetry, novels, oratory, short stories, biographies, journals, diaries, essays, and others. Students analyze how the trends and movements shaped the literature of the time and how the works of the various literary trends and movements continue to affect contemporary literature and issues. Course can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 or 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1042 Novels

(NOVELS)

Novels, a course based on the Indiana Academic Standards for English/Language Arts, is a study of the distinct features of the novel, such as narrative and fictional elements of setting, conflict, climax, and resolution, and may be organized by historical periods, themes, or authors. Students examine novels of a given period, such as Victorian, the Modern Period, or Contemporary Literature, and what distinguishes novels from short stories, epics, romances, biographies, science fiction, and others. Students analyze novels by various important authors from the past and present or sets of novels from a specific era or across several eras. Courses can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1044 Poetry
(POETRY)

Poetry, a course based on the Indiana Academic Standards for English/Language Arts, is a study of poetic works, the interpretation of poetry, and the variety of structures, devices, and themes that differentiate one type of poetry from another. Students examine a wide variety of major poetic works from the English-speaking world and English translations of important works from the non-English-speaking world. Students analyze the impact of aural devices, such as meter, alliteration, assonance, and rhyme, on the overall interpretation of a poem and how poetry is a form of literary expression that has prevailed through the ages. Course can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1046 Short Stories
(SHORT STRS)

Short Stories, a course based on the Indiana Academic Standards for English/Language Arts, is a study of the distinct features of the short story, such as tightly focused narrative fiction. The course may be organized by historical periods, themes, or authors. Students examine short stories with modernist and contemporary themes by a variety of authors from the perspective of audience, purpose, and historical development. Students analyze what distinguishes the short story genre from other literary genres, such as the novels, epics, romances, biographies, etc. Course can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or teacher recommendation

- Credits: 1 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1048 Themes in Literature
(THEMES LIT)

Themes in Literature, a course based on the Indiana Academic Standards for English/Language Arts, is a study of universal themes, such as the journey of the hero, the trials of youth, the search for identity, and other themes appropriate to the level and interests of students. The course may be limited to a few important related themes. Students examine representative works in various genres by authors of diverse eras and nationalities and the way themes may be treated differently in the works because of the cultural context. Students analyze how themes illuminate humanity's struggle to understand the human condition. Course can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 or 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1050Twentieth-Century Literature
(20TH-C LIT)

Twentieth Century Literature, a course based on the Indiana Academic Standards for English/Language Arts, is a study of twentieth-century literature in the United States, the British Isles, and Europe with a focus on major works and writers in the Modern Period, the Harlem Renaissance, Early Contemporary Literature and Contemporary Literature from a chronological or thematic perspective. Students examine a variety of genres including novels, short stories, poetry, dramas, science fiction, and others. Students analyze how the writers and their works either reflected or influenced the issues of the time. Course can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 or 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1052 World Literature
(WORLD LIT)

World Literature, a course based on the Indiana Academic Standards for English/Language Arts, is a study of ancient and modern representative works by major authors from six continents: Africa, Asia, Australia, Europe, North America, and South America. Students examine a wide variety of literary genres and themes. Students analyze how the ideas and concepts presented in the works are both interconnected and reflective of the cultures and historical periods of the countries represented by the authors. Course can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

- Recommended Grade: 11, 12

- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 or 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1078Advanced Speech and Communication (ADV SPEECH)

Advanced Speech and Communication, a course based on the Indiana Academic Standards for English/Language Arts and emphasizing the High School Speech and Communication Standards, is the study and application of skills in listening, oral interpretation, media communications, research methods, and oral debate. Students deliver different types of oral and multimedia presentations, including speeches to inform, to motivate, to entertain, and to persuade through the use of impromptu, extemporaneous, memorized, or manuscript delivery.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Speech or teacher recommendation
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- Fulfills an English/Language Arts requirement for all diploma

1074 Critical Thinking and Argumentation (CRIT THINK)

Critical Thinking and Argumentation, a course based on the Indiana Academic Standards for English/Language Arts, is a study of deductive and inductive logic, including logical fallacies, and should challenge students to think critically, analytically, and philosophically. Students learn to formulate thoughtful inquiry questions, connect ideas or concepts, challenge ideas and concepts, and rephrase ideas when appropriate. Active class participation is essential, including persistent questioning, rational discussion, and reasoned argumentation. Students make comments that reflect the development of logic (a line of reasoning), represent a clear point of view, and involve evidence of support (data, examples, anecdotes, documents, information from a variety of sources). Students use the same Standard English conventions for oral speech that they use in their writing.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10 or teacher recommendation
- Credits: 1 or 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1070 Debate (DEBATE)

Debate, a course based on the Indiana Academic Standards for English/Language Arts, is the study and application of the basic principles of debate involving support for the basic types of arguments (induction, deduction, causation) and debate strategies (affirmative or negative argument construction and extension, case development, refutation or rebuttal of argument claims and evidence, and persuasive speaking).

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Speech or teacher recommendation
- Credits: 1 or 2 semester course, 1 credit per semester. The nature of this course allows for

the second semester of instruction at an advanced level.
- 1 credit fulfills an English/Language Arts requirement for all diplomas, additional credits fulfill elective credit for all diplomas

1076 Speech
(SPEECH)

Speech, a course based on the Indiana Academic Standards for English/Language Arts, is the study and application of the basic principles and techniques of effective oral communication. Students deliver focused and coherent speeches that convey clear messages, using gestures, tone, and vocabulary appropriate to the audience and purpose. Students deliver different types of oral and multimedia presentations, including viewpoint, instructional, demonstration, informative, persuasive, and impromptu. Students use the same Standard English conventions for oral speech that they use in their writing.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1076 Applied Speech
(SPEECH)

Applied Speech, a course based on the Indiana Academic Standards or Content Connectors for English/Language Arts, is the study and application of the basic principles and techniques of effective oral communication. Students deliver focused and coherent speeches that convey clear messages, using gestures, tone, and vocabulary appropriate to the audience and purpose. Students deliver different types of oral and/or multimedia presentations, including student portfolios, viewpoint, instructional, demonstration, informative, persuasive, and impromptu. Student products are aligned to their mode of communication.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 2 units maximum
- Counts as an English/Language Arts or Employability Requirement for the Certificate of Completion

1098 Advanced Composition
(ADV COMP)

Advanced Composition, a course based on the Indiana Academic Standards for English/Language Arts, is a study and application of the rhetorical writing strategies of exposition and persuasion. Students write expository critiques of nonfiction selections, literary criticism of fiction selections, persuasive compositions, and research reports in addition to other appropriate writing tasks. Course can be offered in conjunction with a literature course, or schools may embed Indiana Academic Standards for English/Language Arts reading standards within curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, Composition, or teacher recommendation
- Credits: 1 or 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1090 Composition
(COMP)

Composition, a course based on the Indiana Academic Standards for English/Language Arts, is a study and application of the rhetorical writing strategies of narration, description, exposition, and persuasion. Using the writing process, students demonstrate a command of vocabulary, English language conventions, research and organizational skills, an awareness of the audience, the purpose for writing, and style. Students read classic and contemporary literature or articles and use appropriate works as models for writing. Students write a variety of types of compositions with a focus on fictional narratives, reflective compositions, academic essays, and responses to literature. Course can be offered in conjunction with a literature course, or schools may embed Indiana Academic Standards for English/Language Arts reading standards within curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 or 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1090 Applied Composition
(COMP)

Applied Composition, a course based on the Indiana Academic Standards or Content Connectors for English/Language Arts, is a study and application of the rhetorical writing strategies of narration, description, exposition, and persuasion. Using the writing process, students demonstrate a command of vocabulary, English language conventions, research and organizational skills, an awareness of the audience, the purpose for writing, and style.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 2 units maximum
- Counts as an English/Language Arts Requirement or elective for the Certificate of Completion

1092 Creative Writing
(CREAT WRIT)

Creative Writing, a course based on the Indiana Academic Standards for English/Language Arts, is a study and application of the rhetorical writing strategies for prose and poetry. Using the writing process, students demonstrate a command of vocabulary, the nuances of language and vocabulary, English language conventions, an awareness of the audience, the purposes for writing, and the style of their own writing. Course can be offered in conjunction with a literature course, or schools may embed Indiana Academic Standards for English/Language Arts reading standards within curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1094 Expository Writing
(EXPOS WRIT)

Expository Writing, a course based on the Indiana Academic Standards for English/ Language Arts, is a study and application of the various types of informational writing intended for a variety of different audiences. Using the writing process, students demonstrate a command of vocabulary, English language conventions, research and organizational skills, an awareness of the audience, the purpose for writing, and style. Course can be offered in conjunction with a literature course, or schools may embed Indiana Academic Standards for English/Language Arts reading standards within curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1096 Technical Communication (TECH COMM)

Technical Communication, a course based on the Indiana Academic Standards for English/Language Arts, is the study and application of the processes and conventions needed for effective technical writing-communication. Using the writing process, students demonstrate a command of vocabulary, English language conventions, research and organizational skills, an awareness of the audience, the purpose for writing, and style. Course can be offered in conjunction with a literature course, or schools may embed Indiana Academic Standards for English/Language Arts reading standards within curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

1096 Applied Technical Communication (TECH COMM)

Applied Technical Communication, a course based on the Indiana Academic Standards for English/Language Arts or Content Connectors for English/Language Arts, is the application of the processes and conventions needed for effective technical writing-communication. Using the writing process, students demonstrate a command of vocabulary, English language conventions, research and organizational skills, an awareness of the audience, the purpose for writing, and style. TECHNICAL WRITING PROJECT: Students complete a project, such as a multimedia presentation, proposal, or portfolio that demonstrates knowledge, application, and writing progress.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 2 units maximum
- Counts as an Employability Requirement or Capstone for the Certificate of Comple

Fine Arts Courses

4142 Dance Choreography: Ballet, Modern, Jazz, or Ethnic- Folk (L) (DANCE CHR)

Dance Choreography is based on the Indiana Academic Standards for Dance. Learning activities in choreography are sequential and systematic and allow students to exhibit self- expression. A wide variety of materials and experiences are used in order to provide students with the knowledge, skills, and appreciation of the multi-styled and multicultural dance expressions. Choreographic activities provide students opportunities to participate in roles as a soloist, a choreographer or leader, and in a subject role. Students also explore a wide variety of choreographic philosophies as well as administrative and media skills necessary for the promotion and documentation of works to be performed. Students experience and learn to use appropriate terminology to describe, analyze, interpret, and critique dance compositions by professional individuals or companies.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- A non-licensed dance instructor may be contracted to provide instruction with a licensed Fine Arts teacher serving as the teacher of record
- Laboratory course

4140 Dance History and Appreciation (DNC HIST)

Dance History and Appreciation is based on the Indiana Standards for Dance. This course develops students ’knowledge and appreciation of a multicultural and multi-styled dance heritage. Students study the literature, music, media, and movement associated with a variety of dance genres including Modern, Ballet, Jazz, Tap, and Ethnic-Folk. Students explore how these forms aid in the preservation and perpetuation of movement communication as an art form. Activities and experiences are designed to develop students ’ability to recognize the historical perspective of dance evolution and styles of dance; study the development of dance and the impact of historical periods and dance’s relationship to other art forms; identify prominent dancers, dance companies, and social groups which have influenced dance; and study dance interactions with society. Students are given opportunities to experience live and recorded dance performances by professional individuals, companies, or social groups that demonstrate cultural and historical perspectives of dance.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- A non-licensed dance instructor may be contracted to provide instruction with a licensed Fine Arts teacher serving as the teacher of record.

4146 Dance Performance: Ballet, Modern, Jazz, or Ethnic-Folk (L) (DNC PERF)

Dance Performance is based on the Indiana Academic Standards for Dance. Sequential and systematic learning experiences are provided in the specific genre offered, whether it is Ballet, Modern, Jazz, or Ethnic-Folk. Activities utilize a wide variety of materials and experiences and are designed to develop techniques appropriate within the genre, including individual and group instruction in performance repertoire and skills. Students develop the ability to express their thoughts, perceptions, feelings, and images through movement. The performance class provides opportunities for students to experience degrees of physical prowess, technique, flexibility, and the study of dance performance as an artistic discipline and as a form of artistic communication. Students describe, analyze, interpret, and judge live and recorded dance performances of professional dancers and companies in the genre. They also become aware of the career opportunities in dance.

- Recommended Grade: 9, 10, 11,12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- A non-licensed dance instructor may be contracted to provide instruction with a licensed Fine Arts teacher serving as the teacher of record
- Laboratory course

4188 Advanced Chorus (L) (ADV CHOR)

Advanced Chorus is based on the Indiana Academic Standards for High School Choral Music. Students taking Advanced Chorus develop musicianship and specific performance skills through ensemble and solo singing. This class includes the study of quality repertoire in the diverse styles of choral literature appropriate in difficulty and range for the students. Chorus classes provide opportunities for performing, creating, and responding to music. Students develop the ability to understand and convey the composer's intent in performance of music. Time outside of the school day may be scheduled for rehearsals and performances. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Students are required to participate in performance opportunities outside of the school day that support and extend learning in the classroom.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Beginning and Intermediate Chorus
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

4170 Advanced Concert Band (L) (ADV BAND)

Advanced Concert Band is based on the Indiana Academic Standards for High School Instrumental Music. This course provides students with a balanced comprehensive study of music through the concert band, which develops skills in the psychomotor, cognitive, and affective domains. Ensemble and solo activities are designed to develop elements of musicianship including tone production, technical skills, intonation, music reading skills, listening skills, analyzing music, studying historically significant styles of literature, and integration of other applicable disciplines. Experiences include improvising, conducting, playing by ear, and sight-reading. Students develop the ability to understand and convey the composer's intent in performance of music. Time outside of the school day may be scheduled for rehearsals and performances. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Students are required to participate in performance opportunities outside of the school day that support and extend learning in the classroom.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Beginning and Intermediate Concert Band
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

4174 Advanced Orchestra (L)
(ADV ORCH)

Advanced Orchestra is based on the Indiana Academic Standards for High School Instrumental Music. Students in this ensemble are provided with a balanced comprehensive study of music through the orchestra, string and/or full orchestra, which develops skills in the psychomotor, cognitive, and affective domains. Ensemble and solo activities are designed to develop and refine elements of musicianship including tone production, technical skills, intonation, music reading skills, listening skills, analyzing music, studying historically significant styles of orchestral literature, and integration of other applicable disciplines. Experiences include improvising, conducting, playing by ear, and sight-reading. Students develop the ability to understand and convey the composer's intent in performance of music. Time outside of the school day may be scheduled for rehearsals and performances. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Students are required to participate in performance opportunities outside of the school day that support and extend learning in the classroom.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Beginning and Intermediate Orchestra
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

4200 Applied Music (L)
(APPL MUS)

Applied Music is based on the Indiana Academic Standards for High School Choral or Instrumental

Music. Applied Music offers high school students the opportunity to receive small group or private instruction designed to develop and refine performance skills. A variety of music methods and repertoire is utilized to refine students' abilities in performing, creating, and responding to music.

- Recommended Grade: 9,10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

4182 Beginning Chorus (L)
(BEG CHOR)

Beginning Chorus is based on the Indiana Academic Standards for High School Choral Music. Students taking Beginning Chorus develop musicianship and specific performance skills through ensemble and solo singing. This class includes the study of quality repertoire in the diverse styles of choral literature appropriate in difficulty and range for the students. Chorus classes provide opportunities for performing, creating, and responding to music. Students develop the ability to understand and convey the composer's intent in performance of music. Time outside of the school day may be scheduled for rehearsals and performances. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Students are required to participate in performance opportunities outside of the school day that support and extend learning in the classroom.

- Recommended Grade: 9,10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

4160 Beginning Concert Band (L)
(BEG BAND)

Beginning Concert Band is based on the Indiana Academic Standards for High School Instrumental Music. Students taking this course are provided with a balanced comprehensive study of music through the concert band, which develops skills in the psychomotor, cognitive, and affective domains. Ensemble and solo activities are designed to develop elements of musicianship including tone production, technical skills, intonation, music reading skills, listening skills, analyzing music, studying historically significant styles of literature, and integration of other applicable disciplines. Experiences include improvising, conducting, playing by ear, and sight-reading. Students develop the ability to understand and convey the composer's intent in performance of music. Time outside of the school day may be scheduled for rehearsals and performances. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Students are required to participate in performance opportunities outside of the school day that support and extend learning in the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

4166 Beginning Orchestra (L)
(BEG ORCH)

Beginning Orchestra is based on the Indiana Academic Standards for High School Instrumental Music. Students in this ensemble are provided with a balanced comprehensive study of music through the orchestra, string and/or full orchestra, which develops skills in the psychomotor, cognitive, and affective domains. Ensemble and solo activities are designed to develop and refine elements of musicianship including tone production, technical skills, intonation, music reading skills, listening skills, analyzing music, studying historically significant styles of orchestral literature, and integration of other applicable disciplines. Experiences include improvising, conducting, playing by ear, and sight-reading. Students develop the ability to understand and convey the composer's intent in performance of music. Time outside of the school day may be scheduled for rehearsals and performances. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Students are required to participate in performance opportunities outside of the school day that support and extend learning in the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

4180 Choral Chamber Ensemble (L)
(CHRL ENSEM)

Choral Chamber Ensemble is based on the Indiana Academic Standards for High School Choral Music. Student musicianship and specific performance skills in this course are enhanced through specialized small group instruction. The activities expand the repertoire of a specific genre. Chamber ensemble classes provide instruction in creating, performing, listening to, and analyzing music in addition to focusing on specific subject matter. Students develop the ability to understand and convey the composer's intent in performance of music. Time outside of the school day may be scheduled for rehearsals and performances. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Students are required to participate in performance opportunities outside of the school day that support and extend learning in the classroom.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: One year or two semesters of Beginning Chorus

- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

4202 Electronic Music (L)
(ELEC MUS)

Electronic Music is based on the Indiana Academic Standards for High School Music Technology. Students taking this course are provided with a wide variety of activities and experiences to develop skills in using electronic media and current technology to perform, create, and respond to music.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

4162 Instrumental Ensemble (L)
(INSTR ENS)

Instrumental Ensemble is based on the Indiana Academic Standards for High School Instrumental Music. Students taking this course are provided with a balanced comprehensive study of chamber ensemble and solo literature, which develops skills in the psychomotor, cognitive and affective domains. Students develop and refine elements of musicianship including tone production, technical skills, intonation, music reading skills, listening skills, analyzing music, studying historically significant styles of literature as pertaining to chamber ensemble and solo literature, and integration of other applicable disciplines. Experiences include improvising, conducting, playing by ear, and sight-reading. Students develop the ability to understand and convey the composer's intent in performance of music. Time outside of the school day may be scheduled for rehearsals and performances. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Students are required to participate in performance opportunities outside of the school day that support and extend learning in the classroom.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: One year or two semesters of Beginning Concert Band
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

4186 Intermediate Chorus (L)
(INT CHOR)

Intermediate Chorus is based on the Indiana Academic Standards for High School Choral Music. Students taking Intermediate Chorus develop musicianship and specific performance skills through ensemble and solo singing. This class includes the study of quality repertoire in the diverse styles of choral literature appropriate in difficulty and range for the students. Chorus classes provide opportunities for performing, creating, and responding to music. Students develop the ability to understand and convey the composer's intent in performance of music. Time outside of the school day may be scheduled for rehearsals and performances. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Students are required to participate in performance opportunities outside of the school day that support and extend learning in the classroom.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Beginning Chorus
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

4168 Intermediate Concert Band (L)
(INT BAND)

Intermediate Concert Band is based on the Indiana Academic Standards for High School Instrumental Music. This course includes a balanced comprehensive study of music that develops skills in the psychomotor, cognitive, and affective domains. Ensemble and solo activities are designed to develop elements of musicianship including tone production, technical skills, intonation, music reading skills, listening skills, analyzing music, studying historically significant styles of literature, and integration of other applicable disciplines. Students study a varied repertoire of developmentally appropriate concert band literature and develop the ability to understand and convey the composer's intent in performance of music. Time outside of the school day may be scheduled for rehearsals and performances. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Students are required to participate in performance opportunities outside of the school day that support and extend learning in the classroom.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Beginning Concert Band
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

4172 Intermediate Orchestra (L)
(INT ORCH)

Intermediate Orchestra is based on the Indiana Academic Standards for High School Instrumental Music. Students in this ensemble are provided with a balanced comprehensive study of music through the orchestra, string and/or full orchestra, which develops skills in the psychomotor, cognitive, and affective domains. Ensemble and solo activities are designed to develop and refine elements of

musicianship including tone production, technical skills, intonation, music reading skills, listening skills, analyzing music, studying historically significant styles of orchestral literature, and integration of other applicable disciplines. Experiences include improvising, conducting, playing by ear, and sight-reading. Students develop the ability to understand and convey the composer's intent in performance of music. Time outside of the school day may be scheduled for rehearsals and performances. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Students are required to participate in performance opportunities outside of the school day that support and extend learning in the classroom.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Beginning Orchestra
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

4164 Jazz Ensemble (L)
(JAZZ ENS)

Jazz Ensemble is based on the Indiana Academic Standards for High School Instrumental Music. Students taking this course develop musicianship and specific performance skills through group and individual settings for the study and performance of varied styles of instrumental jazz. Instruction includes the study of the history, formative, and stylistic elements of jazz. Students develop their creative skills through improvisation, composition, arranging, performing, listening, and analyzing. A limited amount of time outside of the school day may be scheduled for rehearsals and performances. In addition, a limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Students must participate in performance opportunities outside of the school day that support and extend the learning in the classroom. Student participants must also be receiving instruction in another band or orchestra class offering at the discretion of the director.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: One year or two semesters of Beginning Concert Band
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills requirement for 1 of 2 Fine Arts credits for the Core 40 with Academic Honors Diploma if students are enrolled in another band or orchestra course
- Laboratory course

4206 Music History and Appreciation
(MUS HIST)

Music History and Appreciation is based on the Indiana Academic Standards for Music and standards for this specific course. Students receive instruction designed to explore music and major musical styles and periods through understanding music in relation to both Western and Non-Western history and culture. Activities include analyzing and describing music; evaluating music and music performances; and understanding relationships between music and the other arts, as well as

disciplines outside of the arts.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester. The nature of this course allows for two successive semesters of instruction at an advanced level provided that defined proficiencies and standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma

4208 Music Theory and Composition (L)
(MUS THEORY)

Music Theory and Composition is based on the Indiana Academic Standards for Music and standards for this specific course. Students develop skills in the analysis of music and theoretical concepts. Students develop ear training and dictation skills, compose works that illustrate mastered concepts, understand harmonic structures and analysis, understand modes and scales, study a wide variety of musical styles, study traditional and nontraditional music notation and sound sources as tools for musical composition, and receive detailed instruction in other basic elements of music.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester. The nature of this course allows for two successive semesters of instruction at an advanced level provided that defined proficiencies and standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

4204 Piano and Electronic Keyboard (L)
(PIANO KEY)

Piano and Electronic Keyboard is based on the Indiana Academic Standards for High School Music Technology and Instrumental Music. Students taking this course are offered keyboard classes in order to develop music proficiency and musicianship. Students perform with proper posture, hand position, fingering, rhythm, and articulation; compose and improvise melodic and harmonic material; create and perform simple accompaniments; listen to, analyze, sight-read, and study a variety of keyboard literature; study the elements of music as exemplified in a variety of styles; and make interpretive decisions.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

4184 Vocal Jazz (L)
(VOC JAZZ)

Vocal Jazz is based on the Indiana Academic Standards for High School Choral Music. Students in this course develop musicianship and specific performance skills through group and individual settings for the study and performance of varied styles of vocal jazz. Instruction includes the study of the history and formative and stylistic elements of jazz. Students develop their creative skills through improvisation, composition, arranging, performing, listening, and analyzing. Time outside of the school day may be scheduled for rehearsals and performances. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Students are required to participate in performance opportunities outside of the school day that support and extend learning in the classroom.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: One year or two semesters of Beginning Chorus
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

4250 Advanced Acting (L)
(ADV ACTING)

Advanced Acting is based on the Indiana Academic Standards for Theater. Students enrolled in Advanced Acting research, create, and perform characters through script analysis, observation, collaboration and rehearsal. These activities should incorporate elements of theater history, culture, analysis, response, creative process and integrated studies. Additionally, students explore career opportunities in the theater by attending plays, meeting actors and discussing their work, and becoming theater patrons in their community.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Theater Arts
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

4252 Advanced Technical Theater (L)
(ADV TECH TH)

Advanced Technical Theater is based on the Indiana Academic Standards for Theater. Students enrolled in Advanced Technical Theater actively lead and supervise in the process of designing, building, managing, programming, drafting, and implementing the technical aspects of a production. These activities should incorporate elements of theater history, culture, analysis, response, creative process, and integrated studies. Additionally, students investigate technical theater careers then develop a plan for potential employment or further education through audition, interview or presentation of a portfolio. Students also attend and critique theatrical productions and volunteer to support theater

in their community.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Technical Theater I and II (L)
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

4240 Advanced Theater Arts (L)
(ADV THTR)

Advanced Theater Arts is based on the Indiana Academic Standards for Theater. Students enrolled in Advanced Theater Arts read and analyze plays and apply criteria to make informed judgments. They draw on events and experiences to create scripted monologues and scenes, create scenic designs for existing plays, and build characters through observation, improvisation and script analysis. These activities should incorporate elements of theater history, culture, analysis, response, creative process, and integrated studies. Additionally, students explore careers in theater arts and begin to develop a portfolio of their work. They also attend and critique theater productions and identify ways to support the theater in their community.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Theater Arts I and II (L)
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

0518 Musical Theater
(MUS THTR)

Musical Theater is based on the Indiana Academic Standards for Theater. Students in this course study the history of musical theater and its place in today's society. They participate in staging, choreographing, rehearsing, and performing an original or existing musical work. This class may be taught collaboratively among music, theater, dance, and visual arts faculty. These activities should incorporate elements of theater history, culture, analysis, response, creative process, and integrated studies. Additionally, students explore career opportunities in the theater, attend and critique theatrical productions, and recognize the responsibilities and the importance of individual theater patrons in their community.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.

- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

4244 Technical Theater (L)
(TECH THTR)

Technical Theater is based on the Indiana Academic Standards for Theater. Students enrolled in Technical Theater actively engage in the process of designing, building, managing, and implementing the technical aspects of a production. These activities should incorporate elements of theater history, culture, analysis, response, creative process, and integrated studies. Additionally, students explore career opportunities in the theater, attend and critique theatrical productions, and recognize the responsibilities and the importance of individual theater patrons in their community.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

4242 Theater Arts (L)
(THTR ARTS)

Theater Arts is based on the Indiana Academic Standards for Theater. Students enrolled in Theater Arts read and analyze plays, create scripts and theater pieces, conceive scenic designs, and develop acting skills. These activities incorporate elements of theater history, culture, analysis, response, creative process, and integrated studies. Additionally, students explore career opportunities in the theater, attend and critique theatrical productions, and recognize the responsibilities and the importance of individual theater patrons in their community.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

4246 Theater Arts History
(THTR ART HST)

Theater Arts History is based on the Indiana Academic Standards for Theater. Students enrolled in Theater Arts History read and discuss significant plays from various periods and explore the interrelationship between theater and history. These activities should incorporate elements of culture, analysis, response, creative process, and integrated studies. Additionally, students explore career opportunities in the theater, attend and critique theatrical productions, and recognize the responsibilities

and the importance of individual theater patrons in their community.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma

4254 Theater Arts Special Topic (THTR ART ST)

Theater Arts, Special Topics is based on the Indiana Academic Standards for Theater. Students taking this course focus on a specific subject related to theater arts, such as: Shakespeare, Children's Theater, Directing, Arts Management, and other specialized areas of study. These activities should incorporate elements of theater history, culture, analysis, response, creative process, and integrated studies. Additionally, students explore career opportunities in the theater, attend and critique theatrical productions, and recognize the responsibilities and the importance of individual theater patrons in their community.

- Recommended Grade: 10, 11, 12
- ·Required Prerequisites: none
- Recommended Prerequisites: Theater Arts
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

4248 Theater Production (L) (THTR PROD)

Theater Production is based on the Indiana Academic Standards for Theater. Students enrolled in Theater Production take on responsibilities associated with rehearsing and presenting a fully- mounted theater production. They read and analyze plays to prepare for production; conceive and realize a design for a production, including set, lighting, sound and costumes; rehearse and perform roles in a production; and direct or serve as assistant director for a production. These activities should incorporate elements of theater history, culture, analysis, response, creative process, and integrated studies. Additionally, students investigate a theater arts career then develop a plan for potential employment or further education through audition, interview, or presentation of a portfolio. Students also attend and critique theatrical productions and volunteer to support theater in their community.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas

- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

4020 Advanced Art History (ADV ART HST)

Advanced Art History is a course based on the Indiana Academic Standards for Visual Art. Students in this course engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production. They build on knowledge and skills developed in Art History. Students continue to study works of art and artifacts from world cultures, engage in historically relevant studio activities; utilize research skills to discover social, political, economic, technological, environmental, and historical trends and connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills.They utilize the resources of art museums, galleries, and studios, and identify art-related careers.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Art History
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma

4006 Advanced Three Dimensional Art (L) (ADV 3D ART)

Advanced Three-Dimensional Art is a course based on the Indiana Academic Standards for Visual Art. Students in this course build on the sequential learning experiences of Introduction to Three-Dimensional Art that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works. Students explore historical and cultural background and connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; create three-dimensional works of art, reflect upon the outcomes, and revise their work; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. They identify ways to utilize and support art museums, galleries, studios, and community resources.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L), Introduction to Three- Dimensional Art (L)
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

4004 Advanced Two Dimensional Art (L) (ADV 2D ART)

Advanced Two-Dimensional Art is a course based on the Indiana Academic Standards for Visual Art. Students in this course build on the sequential learning experiences of Introduction to Two-Dimensional

Art that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works. Students explore historical and cultural background and connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; create two-dimensional works of art, reflect upon the outcomes, and revise their work; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. They identify ways to utilize and support art museums, galleries, studios, and community resources.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L)
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

4024 Art History
(ART HIST)

Art History is a course based on the Indiana Academic Standards for Visual Art. Students taking Art History engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production. Students study works of art and artifacts from world cultures, engage in historically relevant studio activities; utilize research skills to discover social, political, economic, technological, environmental, and historical trends and connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art-related careers.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma

4040 Ceramics (L)
(CERAMICS)

Ceramics is a course based on the Indiana Academic Standards for Visual Art. Students in ceramics engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works. Students create works of art in clay utilizing the processes of hand building, molds, wheel throwing, slip and glaze techniques, and the firing processes. They reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art-related careers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L), Introduction to

Three- Dimensional Art (L)
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

4082 Digital Design (L)
(DIG DESIGN)

Digital Design is a course based on the Indiana Academic Standards for Visual Art. Students in digital design engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works. They incorporate desktop publishing, multimedia, digitized imagery, computer animation, and web design. Students reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art-related careers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L)
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

4060 Drawing (L)
(DRAWING)

Drawing is a course based on the Indiana Academic Standards for Visual Art. Students in drawing engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works. Students create drawings utilizing processes such as sketching, rendering, contour, gesture, and perspective drawing and use a variety of media such as pencil, chalk, pastels, charcoal, and pen and ink. They reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art-related careers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L)
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

4046 Fiber Arts (L)
(FBR ARTS)

Fiber Arts is a course based on the Indiana Academic Standards for Visual Art. Students in fiber arts engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works. Students create fiber art works utilizing processes such as loom and off-loom construction, dyeing, coiling, and stitchery. They reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art-related careers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L), Introduction to Three- Dimensional Art (L)
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

4026 Fine Arts Connections
(FN ART CONN)

Fine Arts Connections is a course based on the Indiana Academic Standards for Visual Art, Music, Theater, and Dance. In this course, students make connections among experiences in the four arts disciplines and integrate them in studies of all academic disciplines. They create works encompassing multiple disciplines, literacies, and sign systems, reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about works and the nature of the arts. They incorporate presentational skills and utilize the resources of the arts community, identifying related careers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Two or more credits in visual art, music, theatre, or dance.
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma

4002 Introduction to Three Dimensional Art (L)
(3D ART)

Introduction to Three-Dimensional Art is a course based on the Indiana Academic Standards for Visual Art. Students taking this course engage in sequential learning experiences that encompass art history, art criticism, aesthetics, production, and integrated studies and lead to the creation of portfolio quality works. Students explore historical and cultural background and connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; create three-dimensional works of art, reflect upon the outcomes, and revise their work; relate art to other disciplines and

discover opportunities for integration; and incorporate literacy and presentational skills. They identify ways to utilize and support art museums, galleries, studios, and community resources.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L)
- Credits: 1 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

4000 Introduction to Two-Dimensional Art (L)
(2D ART)

Introduction to Two-Dimensional Art is a course based on the Indiana Academic Standards for Visual Art. Students taking this course engage in sequential learning experiences that encompass art history, art criticism, aesthetics, production, and integrated studies and lead to the creation of portfolio quality works. Students explore historical and cultural background and connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; create two-dimensional works of art, reflect upon the outcomes, and revise their work; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. They identify ways to utilize and support art museums, galleries, studios, and community resources.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

4042Jewelry (L)
(JWLRY)

Jewelry is a course based on the Indiana Academic Standards for Visual Art. Students in Jewelry engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works. Students create works of jewelry design and fabrication techniques including, sawing, piercing, filing, and soldering. They reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art-related careers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L), Introduction to Three- Dimensional Art (L)
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma

- Laboratory course

4064 Painting (L)
(PAINTING)

Painting is a course based on the Indiana Academic Standards for Visual Art. Students taking painting engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production that lead to the creation of portfolio quality works. Students create abstract and realistic paintings, using a variety of materials such as mixed media, watercolor, oil, and acrylics as well as techniques such as stippling, gouache, wash, and impasto. They reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art- related careers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L)
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

4062 Photography (L)
(PHOTOGRPH)

Photography is a course based on the Indiana Academic Standards for Visual Art. Students in photography engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works, creating photographs, films, and videos utilizing a variety of digital tools and darkroom processes. They reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art- related careers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L)
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

4066 Printmaking (L)
(PRNTMKG)

Printmaking is a course based on the Indiana Academic Standards for Visual Art. Students in printmaking engage in sequential learning experiences that encompass art history, art criticism,

aesthetics, and production that lead to the creation of portfolio quality works. Students apply media, techniques, and processes with sufficient skill to communicate intended meaning. They create abstract and realistic prints using a variety of materials such as linocut, woodcut, stencil, silkscreen, photo silkscreen, and mono-print. They utilize processes such as etching, relief, and lithography to explore a variety of ideas and problems. Students reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art-related careers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L)
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

4044 Sculpture (L)
(SCULTP)

Sculpture is a course based on the Indiana Academic Standards for Visual Art. Students in sculpture engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production. Using materials such as plaster, clay, metal, paper, wax, and plastic, students create portfolio quality works. Students at this level produce works for their portfolios that demonstrate a sincere desire to explore a variety of ideas and problems. They create realistic and abstract sculptures utilizing subtractive and additive processes of carving, modeling, construction, and assembling. They reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art-related careers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L), Introduction to Three- Dimensional Art (L)
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

4086 Visual Communication (L)
(VIS COMM)

Visual Communication is a course based on the Indiana Academic Standards for Visual Art. Students in visual communication engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works. They create print media utilizing graphic design, typography, illustration, and image creation with digital tools and

computer technology. Students reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art-related careers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L)
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory cours

Health and Wellness Courses

In addition to the courses listed in this section, schools may offer required and elective health and wellness credits by utilizing the courses and following the guidelines listed in the 2016 IDOE memo "Health and Wellness Credit Alternate Options."

3500 Advanced Health Education (ADV HLTH ED)

Advanced Health and Wellness, an elective course that is aligned to Indiana's Academic Standards for Health and Wellness, provides advanced knowledge and skills to help students adopt and maintain healthy behaviors. Through a variety of instructional strategies, students practice the development of functional advanced health information (essential concepts); and determine personal values that support healthy behaviors; develop group norms that value a healthy lifestyle; develop the essential skills necessary to adopt, practice, and maintain health-enhancing behaviors. Advanced Health and Wellness provides students with an in-depth study of promoting personal health and wellness, physical activity, healthy eating; promoting safety and prevention of unintentional injury and violence; promoting mental and emotional health, a tobacco, alcohol, and other drug-free lifestyle; and promoting human development and family health. The scientific components of health and wellness, health issues and concerns, health risk appraisals, individual wellness plans, health promotion, and health careers are expanded and explored within the context of the course. This course provides students with the advanced knowledge and skills of health and wellness core concepts, analyzing influences, accessing information, interpersonal communication, decision-making and goal-setting skills, health-enhancing behaviors, and health and wellness advocacy skills.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Health and Wellness course
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester, 1 credit maximum
- Counts as an elective requirement for all diplomas

3500 Applied Advanced Health Education (ADV HLTH ED)

Applied Advanced Health Education, an elective course that is aligned to Indiana's Academic Standards for Health & Wellness, provides knowledge and skills to help students adopt and maintain healthy behaviors. Through a variety of instructional strategies, students practice applying health information (essential concepts); determine personal values that support health behaviors; develop group norms that value a healthy lifestyle; develop the essential skills necessary to adopt, practice, and maintain health-enhancing behaviors.
Advanced Health & Wellness provides students with opportunities to learn and apply personal health and wellness, physical activity, healthy eating; promoting safety and preventing unintentional injury and violence; promoting mental and emotional health, tobacco, alcohol, and other drug-free lifestyle; and promoting human development and family health. The scientific components of health and wellness, health issues and concerns, health risk appraisals, individual wellness plans, health promotion and health careers are expanded and explored within the context of the course. This course provides students with the knowledge and skills of health and wellness core concepts, analyzing influences, accessing information, interpersonal communication, decision- making and goal-setting skills, health-enhancing behaviors, and health and wellness advocacy skills.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 2 units maximum
- Counts as a Health/Wellness requirement for the Certificate of Completion

3508 Current Health Issues (CHI)

Current Health Issues, an elective course that can be aligned to Indiana's Academic Standards for Health and Wellness, focuses on specific health issues and/or emerging trends in health and wellness, but not limited to: personal health and wellness; non-communicable and communicable diseases; nutrition; mental and emotional health; tobacco prevention; alcohol and other drug prevention; human development and family health; health care and/or medical treatments; and national and/or international health issues. This course provides students with the knowledge and skills of health and wellness core concepts, analysis of influences, access to information, interpersonal communication, decision-making and goal-setting skills, health-enhancing behaviors, and health and wellness advocacy skills.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Health and Wellness course
- Credits: 1 semester course, 1 credit per semester, 1 credit maximum
- Counts as an elective requirement for all diplomas

3508 Applied Current Health Issues (CHI)

Applied Current Health Issues, an elective course that can be aligned to Indiana's Academic Standards for Health & Wellness, focuses on specific health issues and/or emerging trends in health and wellness, but not limited to: personal health and wellness; non-communicable and communicable diseases; nutrition; mental and emotional health; tobacco-prevention; alcohol and other drug-prevention; human development and family health; health care and/or medical treatments; and national and/or international health issues. This course provides students with the knowledge and skills of health and wellness core concepts, analysis of influences, access to information, interpersonal communication, decision-making and goal-setting skills, health- enhancing behaviors, and health and wellness advocacy skills.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 2 units maximum
- Counts as an elective or Health & Wellness requirement for the Certificate of Completion

3506 Health and Wellness Education (HLTH & WELL)

Health and Wellness, a course based on Indiana's Academic Standards for Health and Wellness and provides the basis to help students adopt and maintain healthy behaviors. Health education should contribute directly to a student's ability to successfully practice behaviors that protect and promote health and avoid or reduce health risks. Through a variety of instructional strategies, students practice the development of functional health information (essential concepts); determine personal values that support healthy behaviors; develop group norms that value a healthy lifestyle; develop the essential skills necessary to adopt, practice, and maintain health-enhancing behaviors. This course includes the application of priority areas in a planned, sequential, comprehensive health education curriculum. Priority areas include: promoting personal health and wellness, physical activity, and healthy eating; promoting safety and preventing unintentional injury and violence; promoting mental and emotional health, a tobacco- free lifestyle and an alcohol- and other drug-free lifestyle; and promoting human development and family health. This course provides students with the knowledge and skills of health and wellness core concepts, analyzing influences, accessing information, interpersonal communication, decision-making and goal-setting skills, health-enhancing behaviors, and health and wellness advocacy skills.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: 8th grade health education
- Credits: 1 semester course, 1 credit per semester, 1 credit maximum
- Fulfills the Health and Wellness requirement for all diploma types

3506 Applied Health and Wellness Education (HLTH & WELL)

Health and Wellness, a course based on Indiana's Academic Standards for Health and Wellness and provides the basis to help students adopt and maintain healthy behaviors. Health education should contribute directly to a student's ability to successfully practice behaviors that protect and promote health and avoid or reduce health risks. Through a variety of instructional strategies, students practice the development of functional health information (essential concepts); determine personal values that support health behaviors; develop group norms that value a healthy lifestyle; develop the essential skills necessary to adopt, practice, and maintain health-enhancing behaviors. This course includes the application of priority areas in a planned, sequential, comprehensive health education curriculum. Priority areas include promoting personal health and wellness, physical activity, and healthy eating; promoting safety and preventing unintentional injury and violence; promoting mental and emotional health, a tobacco- free lifestyle and an alcohol- and other drug-free lifestyle; and promoting human development and family health. This course provides students with the knowledge and skills of health and wellness core concepts, analyzing influences, accessing information, interpersonal communication, decision-making and goal-setting skills, health-enhancing behaviors, and health and wellness advocacy skills.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none

- Recommended Prerequisites: none
- Applied Units: 2 units maximum
- Counts as an elective or Health & Wellness requirement for the Certificate of Completion

International Baccalaureate Courses

The International Baccalaureate (IB) Diploma Programme (DP) is an academically challenging and balanced programme of education with final examinations that prepares students, aged 16 to 19, for success at university and life beyond. It has been designed to address the intellectual, social, emotional and physical well-being of students. The programme has gained recognition and respect from the world's leading universities. Schools must be authorized to use IB.

The Diploma Programme prepares students for effective participation in a rapidly evolving and increasingly global society as they:

- develop physically, intellectually, emotionally and ethically
- acquire breadth and depth of knowledge and understanding, studying courses from six subject groups
- develop the skills and a positive attitude towards learning that will prepare them for higher education
- study at least two languages and increase understanding of cultures, including their own
- make connections across traditional academic disciplines and explore the nature of knowledge through the programme's unique Theory of Knowledge course
- undertake in-depth research into an area of interest through the lens of one or more academic disciplines in the extended essay
- enhance their personal and interpersonal development through creativity, action, and service

The Curriculum
IB Diploma Programme students must choose one subject from each of the five subject groups (1 to 5):Studies in Language and Literature, Language Acquisition, Individuals and Societies, Sciences, and Mathematics. In addition, the sixth subject a student must choose may be from an arts subject or from the aforementioned subjects. DP subjects can be taken at higher level or standard level.

At least three and not more than four subjects are taken at higher level (240 teaching hours), while the other subjects are taken at standard level (150 teaching hours). Students can study and take examinations in English, French, or Spanish. Two DP subjects are classified as interdisciplinary subjects and so satisfy the requirements of more than one subject group.

Within two of the subject areas (Language and Literature and Sciences) are additional interdisciplinary subjects which satisfy the requirement of more than one subject group. These include:

- Literature and performance - group one and group six
- Environmental systems - group three and group four

In addition to disciplinary and interdisciplinary study, the Diploma Programme features three core elements that broaden students' educational experience and challenge them to apply their knowledge and skills.

The Diploma Programme Core

- **The extended essay** is a mandatory component that asks students to engage in independent research through an in-depth study of a question relating to one of the DP subjects they are studying. The world studies extended essay option allows students to focus on a topic of global significance which they examine through the lens of at least two DP subjects.
- **Theory of knowledge** develops a coherent approach to learning that unifies the academic disciplines. In this course on critical thinking, students inquire into the nature of knowing and deepen their understanding of knowledge as a human construction.
- **Creativity, Activity, Service (CAS)** involves students in a range of activities alongside their academic studies throughout the Diploma Programme. Creativity encourages students to engage in the arts and creative thinking. Activity seeks to develop a healthy lifestyle through physical activity. Service with the community offers a vehicle for new learning with academic value. The three strands of CAS enhance students 'personal and interpersonal development through experiential learning and enable journeys of self-discovery. The CAS project can address any single strand of CAS, or combine two or all three strands of creativity, activity and service.

A comprehensive description of all IB Diploma Programme courses can be found here.

0553 IB Personal and Professional Skills I (AL 1 IB)

IB Personal and Professional Skills (PPS) courses are a required component of the International Baccalaureate's Career-related program. Intended to develop attitudes, skills, and strategies applicable to both personal and professional situations, these courses emphasize personal growth and development, interpersonal skills, intercultural understanding, and the use of ethics. IB Personal and Professional Skills courses are linked to students' career-related studies and may include work-based experiences.

- Recommended Grade: 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Fulfills a directed elective or elective requirement for all diplomas

0554 IB Personal and Professional Skills II (ATL 2, IB)

IB Personal and Professional Skills (PPS) courses are a required component of the International Baccalaureate's Career-related program. Intended to develop attitudes, skills, and strategies applicable to both personal and professional situations, these courses emphasize personal growth and development, interpersonal skills, intercultural understanding, and the use of ethics. IB Personal and Professional Skills courses are linked to students' career-related studies and may include work-based experiences.

- Recommended Grade: 12
- Required Prerequisites: Approaches to Learning 1: Grade 11
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Fulfills a directed elective or elective requirement for all diplomas

3032 IB Biology Higher Level
(BIO H IB)

IB Biology Higher Level focuses on six core topics: cell biology, molecular biology, genetics, ecology, evolution/biodiversity, and human physiology. It is based on the curriculum published by the International Baccalaureate Organization. Students must complete additional study in eight topics: nucleic acids, metabolism, cell respiration, photosynthesis, genetics and evolution, animal physiology, and plant biology. Optional course topics for students include neurobiology and behavior, biotechnology and bioinformatics, ecology and conservations, and human physiology.

- Recommended Grade: 11, 12
- Required Prerequisites: Biology I and Chemistry I
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Qualifies as a quantitative reasoning course
- The minimum prescribed number of hours is 240.

3034 IB Biology Standard Level
(BIO S IB)

IB Biology Standard Level focuses on six core topics: cell biology, molecular biology, genetics, ecology, evolution and biodiversity, and human physiology. It is based on the curriculum published by the International Baccalaureate Organization. Optional course topics include neurobiology and behavior, biotechnology and bioinformatics, ecology and conservations, and human physiology.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Biology I and Chemistry I
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills the Biology I requirement for all diplomas
- Qualifies as a quantitative reasoning course
- The minimum prescribed number of hours is 150.

4580 IB Business and Management Higher Level
(BUSM H IB)

The IB Business Management course is designed to develop students' knowledge and understanding of business management theories, as well as their ability to apply a range of tools and techniques. Students learn to analyze, discuss, and evaluate business activities at local, national, and international levels. The course covers a range of organizations from all sectors, as well as the sociocultural and economic contexts in which those organizations operate. The course covers the key characteristics of business organization and environment, and the business functions of human resource management, finance and accounts, marketing, and operations management. Links between the topics are central to the course. Through the exploration of six underpinning concepts (change, culture, ethics, globalization, innovation, and strategy), the course allows students to develop a holistic understanding of today's complex and dynamic business environment. The conceptual learning is firmly anchored in business management theories, tools, and techniques, and placed in the context of real-world examples and case studies.

- Recommended Grade: 11, 12
- Required Prerequisites: none

- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective or directed elective for all diplomas

4582 IB Business and Management Standard Level (BUSM S IB)

The IB Business Management course is designed to develop students' knowledge and understanding of business management theories, as well as their ability to apply a range of tools and techniques. Students learn to analyze, discuss, and evaluate business activities at local, national and international levels. The course covers a range of organizations from all sectors, as well as the sociocultural and economic contexts in which those organizations operate. The course covers the key characteristics of business organization and environment, and the business functions of human resource management, finance and accounts, marketing, and operations management. Links between the topics are central to the course. Through the exploration of six underpinning concepts (change, culture, ethics, globalization, innovation, and strategy), the course allows students to develop a holistic understanding of today's complex and dynamic business environment. The conceptual learning is firmly anchored in business management theories, tools and techniques and placed in the context of real-world examples and case studies.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective or directed elective for all diplomas

3070 IB Chemistry Higher Level (CHEM H IB)

IB Chemistry Higher Level is designed to introduce students to the theories and practical techniques involved in the composition, characterization, and transformation of substances. It is based on the curriculum published by the International Baccalaureate Organization. As the central science, the chemical principles investigated underpin both the physical world in which we live and all biological systems. Students study eleven core topics: stoichiometry, atomic theory, periodicity, bonding, states of matter, energetics, kinetics, equilibrium, acids and bases, oxidation and reduction, and organic chemistry. Students must complete additional study in nine topics: atomic theory, periodicity, bonding, energetics, kinetics, equilibrium, acids and bases, oxidation and reduction, and organic chemistry. Optional course topics include medicines and drugs, human biochemistry, environmental chemistry, chemical industries, and fuels and energy. Additional options are modern analytical chemistry and further organic chemistry.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Biology I and Chemistry I
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills a Chemistry I requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors
- Qualifies as a quantitative reasoning course
- The minimum prescribed number of hours is 240.

3072 IB Chemistry Standard Level (CHEM S IB)

IB Chemistry Standard Level is designed to introduce students to the theories and practical techniques involved in the composition, characterization, and transformation of substances. It is based on the curriculum published by the International Baccalaureate Organization. As the central science, the chemical principles investigated underpin both the physical world in which we live and all biological systems. Students study eleven core topics: stoichiometry, atomic theory, periodicity, bonding, states of matter, energetics, kinetics, equilibrium, acids and bases, oxidation and reduction, and organic chemistry. Optional course topics include medicines and drugs, human biochemistry, environmental chemistry, chemical industries, and fuels and energy. Higher physical organic chemistry is a further option.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Biology I and Chemistry I
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills a Chemistry I requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors
- Qualifies as a quantitative reasoning course
- The minimum prescribed number of hours is 150.

2300 IB Classical Languages Higher Level (CL H IB)

The IB Classical Languages Higher level (HL) course can be taken in Latin or Classical Greek. The course provides students with the opportunity to study a historically significant language that is also embedded in many modern languages. Latin and Classical Greek are separate subjects, but they share the same syllabus and assessment criteria. The DP classical languages course provides an opportunity for students to explore the languages, literature, and cultures of ancient Greece or Rome. The study of classical languages gives important insights into the cultures that produced them, and leads to a greater understanding of contemporary languages, literature, and cultures. Fundamentally, the study of classical languages trains the mind, developing skills of critical thought, memory and close analysis, as well as an appreciation of the beauty and power of language.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as a World Language Course for all diplomas
- Counts as an elective or directed elective for all diplomas

2302 IB Classical Languages Standard Level (CL S IB)

The IB Classical Languages Standard level (SL) course can be taken in Latin or Classical Greek. The course provides students with the opportunity to study a historically significant language that is also embedded in many modern languages. Latin and Classical Greek are separate subjects, but they share the same syllabus and assessment criteria. The DP classical languages course provides an opportunity for students to explore the languages, literature, and cultures of ancient Greece or Rome. The study of classical languages gives important insights into the cultures that produced them, and leads to a greater understanding of contemporary languages, literature, and cultures. Fundamentally, the study of classical languages trains the mind, developing skills of critical thought, memory and close analysis, as well as an appreciation of the beauty and power of language.

- Recommended Grade: 11, 12

- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as a World Language Course for all diplomas
- Counts as an elective or directed elective for all diplomas

4584 IB Computer Science Higher Level (COMPSCI H IB)

IB Computer Science Higher Level guides students through problem solving strategies and definitions to the construction of algorithms to create solutions, thereby developing skills of logic and analytical thinking. It is based on the curriculum published by the International Baccalaureate Organization. The common core includes: systems life cycle and software development, program construction in Java, computing system fundamentals, a case study, and a program dossier. Additional material may include computer mathematics and logic, abstract data structure and algorithms, further system fundamentals, file organization, and an extended case study.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Fulfills a science course requirement for all diplomas
- Qualifies as a quantitative reasoning course
- New assessment 2023

4586 IB Computer Science Standard Level (COMPSCI S IB)

IB Computer Science Standard Level guides students through problem solving strategies and definitions to the construction of algorithms to create solutions, thereby developing skills of logic and analytical thinking. It is based on the curriculum published by the International Baccalaureate Organization. The common core includes: systems life cycle and software development, program construction in Java, computing system fundamentals, a case study, and a program dossier.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Fulfills a science course requirement for all diplomas
- Qualifies as a quantitative reasoning course

4144 IB Dance Higher Level (DNC H IB)

The IB DP Dance Higher Level course takes a holistic approach to dance, and embraces a variety of dance traditions and dance cultures—past, present, and looking towards the future. Performance, creative, and analytical skills are mutually developed and valued whether the students are writing papers or creating/performing dances. The curriculum provides students with a liberal arts orientation to dance. This orientation facilitates the development of students who may become choreographers, dance scholars, performers, or those, more broadly, who seek life enrichment through dance.

- Recommended Grade: 11, 12
- Required Prerequisites: none

- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors Diploma
- Counts as a directed elective or elective for all diplomas

4148 IB Dance Standard Level
(DNC S IB)

The IB DP Dance Standard Level course takes a holistic approach to dance and embraces a variety of dance traditions and dance cultures—past, present, and looking towards the future. Performance, creative, and analytical skills are mutually developed and valued whether the students are writing papers or creating/performing dances. The curriculum provides students with a liberal arts orientation to dance. This orientation facilitates the development of students who may become choreographers, dance scholars, performers, or those, more broadly, who seek life enrichment through dance.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective or directed elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors Diploma

4822 IB Design Technology Higher Level
(DTECH H IB)

IB Design Technology Higher Level aims to teach students not only design and technology, but also how to adapt to new experiences and approach problems with the appropriate skills and techniques to identify important elements and develop optimum solutions. This course is based on the curriculum published by the International Baccalaureate Organization. It assumes no previous experience in either design technology or designing. Students study six core topics: designers and the design cycle, the responsibility of the designer, materials, manufacturing processes and techniques, production systems, and clean technology and green design. Students must complete additional study in three topics: raw material to final product, microstructures and macrostructures, and appropriate technologies. Optional course topics from which the student may choose two include: food technology, computer-aided design, manufacture and production, invention, innovation and design, health by design, and electronic products.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective or directed elective for all diplomas

4824 IB Design Technology Standard Level
(DTECH S IB)

IB Design Technology Standard Level aims to teach students not only design and technology, but also how to adapt to new experiences and approach problems with the appropriate skills and techniques to identify important elements and develop optimum solutions. This course is based on the curriculum published by the International Baccalaureate Organization. It assumes no previous experience in either design technology or designing. Students study six core topics: designers and the design cycle, the responsibility of the designer, materials, manufacturing processes and techniques, production systems,

and clean technology and green design. Optional course topics from which the student may choose two are food technology, computer-aided design, manufacture and production, invention, innovation and design, health by design, and electronic products. Further options include raw material to final product, microstructures and macrostructures, and appropriate technologies.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective or directed elective for all diplomas

1580 IB Economics Higher Level (ECON H IB)

The IB Diploma Programme Economics Higher Level is a dynamic social science. The study of economics is essentially about dealing with scarcity, resource allocation, and the methods and processes by which choices are made in the satisfaction of human wants. As a social science, economics uses scientific methodologies that include quantitative and qualitative elements. The DP economics course emphasizes the economic theories of microeconomics, which deal with economic variables affecting individuals, firms and markets, and the economic theories of macroeconomics, which deal with economic variables affecting countries, governments, and societies. These economic theories are not studied in a vacuum—rather, they are to be applied to real-world issues. Prominent among these issues are fluctuations in economic activity, international trade, economic development, and environmental sustainability.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective or directed elective for all diplomas
- Fulfills the Economics requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas
- Fulfills the Social Studies Economics requirement for the General Diploma
- Qualifies as a quantitative reasoning course

1582 IB Economics Standard Level (ECON S IB)

The IB Diploma Programme Economics Standard Level is a dynamic social science. The study of economics is essentially about dealing with scarcity, resource allocation, and the methods and processes by which choices are made in the satisfaction of human wants. As a social science, economics uses scientific methodologies that include quantitative and qualitative elements. The DP economics course emphasizes the economic theories of microeconomics, which deal with economic variables affecting individuals, firms and markets, and the economic theories of macroeconomics, which deal with economic variables affecting countries, governments, and societies. These economic theories are not studied in a vacuum—rather, they are to be applied to real-world issues. Prominent among these issues are fluctuations in economic activity, international trade, economic development, and environmental sustainability.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester

- Counts as an elective or directed elective for all diplomas
- Fulfills the Economics requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas
- Fulfills the Social Studies Economics requirement for the General Diploma
- Qualifies as a quantitative reasoning course

3016 IB Environmental Systems and Societies Standard Level (ENVSS S IB)

The IB DP Environmental Systems and Societies Standard Level course aims to provide students with a coherent perspective of the interrelationships between environmental systems and societies; one that enables them to adopt an informed personal response to the wide range of pressing environmental issues that they will inevitably come to face. Students' attention is constantly drawn to their own relationship with their environment and the significance of choices and decisions that they make in their own lives. It is intended that students develop a sound understanding of the interrelationships between environmental systems and societies, rather than a purely journalistic appreciation of environmental issues. The teaching approach strives to be conducive to students evaluating the scientific, ethical, and socio-political aspects of issues.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as a science elective for all diplomas
- Counts as an elective for all diplomas

4270 IB Film Higher Level (FILM H IB)

The DP film course aims to develop students as proficient interpreters and makers of film texts. Through the study and analysis of film texts and practical exercises in film production, students develop critical abilities and appreciation of artistic, cultural, historical, and global perspectives in film. They examine concepts, theories, practices, and ideas from multiple perspectives, challenging their own views to understand and value those of others. Students are challenged to acquire and develop critical thinking, reflective analysis, and the imaginative synthesis through practical engagement in the art, craft, and study of film.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors Diploma
- Counts as a directed elective or elective for all diplomas

4272 IB Film Standard Level (FILM S IB)

The DP film course aims to develop students as proficient interpreters and makers of film texts. Through the study and analysis of film texts, and practical exercises in film production, students develop critical abilities and appreciation of artistic, cultural, historical and global perspectives in film. They examine concepts, theories, practices and ideas from multiple perspectives, challenging their own views to understand and value those of others. Students are challenged to acquire and develop critical

thinking, reflective analysis and the imaginative synthesis through practical engagement in the art, craft and study of film.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors Diploma
- Counts as a directed elective or elective for all diplomas

1584 IB Geography, Higher Level
(GEO H IB)

The IB Geography Higher Level course is a dynamic subject that is firmly grounded in the real world and focuses on the interactions between individuals, societies, and the physical environment in both time and space. It seeks to identify trends and patterns in these interactions and examines the processes behind them. Geography is distinctive in that it occupies the middle ground between social sciences and natural sciences. The DP geography course integrates both physical and human geography and ensures that students acquire elements of both scientific and socio-economic methodologies. Geography takes advantage of its position between both these groups of subjects to examine relevant concepts and ideas from a wide variety of disciplines. This helps students develop an appreciation of, and a respect for, alternative approaches, viewpoints, and ideas.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as a Social Studies requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors
- Counts as a Science Course requirement for the General and International Baccalaureate diplomas
- Counts as an elective for all diplomas

1586 IB Geography, Standard Level
(GEO S IB)

The IB Geography Standard Level course is a dynamic subject that is firmly grounded in the real world and focuses on the interactions between individuals, societies, and the physical environment in both time and space. It seeks to identify trends and patterns in these interactions and examines the processes behind them. Geography is distinctive in that it occupies the middle ground between social sciences and natural sciences. The DP geography course integrates both physical and human geography and ensures that students acquire elements of both scientific and socio-economic methodologies. Geography takes advantage of its position between both these groups of subjects to examine relevant concepts and ideas from a wide variety of disciplines. This helps students develop an appreciation of, and a respect for, alternative approaches, viewpoints, and ideas.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as a Social Studies requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors

- Counts as a Science Course requirement for the General and International Baccalaureate diplomas
- Counts as an elective for all diplomas

1598 IB Global Politics Higher Level
(GLPO H IB)

IB Global Politics Higher Level explores fundamental political concepts such as power, liberty, and equality, in a range of contexts and at a variety of levels. It allows students to develop an understanding of the local, national, international, and global dimensions of political activity, as well as allowing them the opportunity to explore political issues affecting their own lives. Global politics draws on a variety of disciplines in the social sciences and humanities. It helps students to understand abstract political concepts by grounding them in real world examples and case studies, and also invites comparison between such examples and case studies to ensure a transnational perspective. Developing international mindedness and an awareness of multiple perspectives is at the heart of this course. It encourages dialogue and debate, nurturing the capacity to interpret competing and contestable claims. All standard level and higher-level students complete a common core entitled "People, Power, and Politics". This consists of four core units: Power, Sovereignty and International Relations; Human rights; Development; and Peace and Conflict.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Fulfills an elective requirement for all diplomas

1578 IB Global Politics Standard Level
(GLPO S IB)

IB Global Politics Standard Level explores fundamental political concepts such as power, liberty, and equality, in a range of contexts and at a variety of levels. It allows students to develop an understanding of the local, national, international, and global dimensions of political activity, as well as allowing them the opportunity to explore political issues affecting their own lives. Global politics draws on a variety of disciplines in the social sciences and humanities. It helps students to understand abstract political concepts by grounding them in real world examples and case studies, and also invites comparison between such examples and case studies to ensure a transnational perspective. Developing international mindedness and an awareness of multiple perspectives is at the heart of this course. It encourages dialogue and debate, nurturing the capacity to interpret competing and contestable claims. All standard level and higher-level students complete a common core entitled "People, Power, and Politics". This consists of four core units: Power, Sovereignty, and International Relations; Human rights; Development; and Peace and Conflict.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Fulfills an elective requirement for all diplomas

1590 IB History, Higher Level
(HIS H IB)

The IB history course is a world history course based on a comparative and multi-perspective

approach to history. It involves the study of a variety of types of history, including political, economic, social, and cultural, and provides a balance of structure and flexibility. The course emphasizes the importance of encouraging students to think historically and to develop historical skills as well as gaining factual knowledge. It puts a premium on developing the skills of critical thinking, and on developing an understanding of multiple interpretations of history. In this way, the course involves a challenging and demanding critical exploration of the past. Teachers explicitly teach thinking and research skills such as comprehension, text analysis, transfer, and use of primary sources. There are six key concepts that have particular prominence throughout the DP history course: change, continuity, causation, consequence, significance, and perspectives. The range of content is from 750 CE to the 21st Century. Higher Level requires that one of four regions must be studied: Americas, Africa/Middle East, Europe, or Asia/Oceania.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills the US History requirement only with regional concentration on the Americas

1592 IB History, Standard Level (HIS S IB)

The IB history course is a world history course based on a comparative and multi-perspective approach to history. It involves the study of a variety of types of history, including political, economic, social, and cultural, and provides a balance of structure and flexibility. The course emphasizes the importance of encouraging students to think historically and to develop historical skills as well as gaining factual knowledge. It puts a premium on developing the skills of critical thinking, and on developing an understanding of multiple interpretations of history. In this way, the course involves a challenging and demanding critical exploration of the past. Teachers explicitly teach thinking and research skills such as comprehension, text analysis, transfer, and use of primary sources. There are six key concepts that have particular prominence throughout the IB history course: change, continuity, causation, consequence, significance, and perspectives. The range of content is from 750 CE to the 21st century.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills the US History requirement only with regional concentration on the Americas

5242 IB Information Technology in a Global Society Higher Level (ITGS H IB)

The IB Information Technology in a Global Society Higher Level (ITGS) course is the study and evaluation of the impacts of information technology (IT) on individuals and society. It explores the advantages and disadvantages of the access and use of digitized information at the local and global level. ITGS provides a framework for the student to make informed judgments and decisions about the use of IT within social contexts.

- Recommended Grade: 11, 12
- Required Prerequisites: none

- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective or directed elective for all diplomas

5246 IB Information Technology in a Global Society Standard Level (ITGS S IB)

The IB Information Technology in a Global Society Standard Level (ITGS) course is the study and evaluation of the impacts of information technology (IT) on individuals and society. It explores the advantages and disadvantages of the access and use of digitized information at the local and global level. ITGS provides a framework for the student to make informed judgments and decisions about the use of IT within social contexts.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective or directed elective for all diplomas

1130 IB Language A: Literature Higher Level (LA LIT H IB)

The IB Diploma Programme language A: literature higher level course develops understanding of the techniques involved in literary criticism and promotes the ability to form independent literary judgments. In language A: literature, the formal analysis of texts and wide coverage of a variety of literature—both in the language of the subject and in translated texts from other cultural domains—is combined with a study of the way literary conventions shape responses to texts. Students completing this course will have a thorough knowledge of a range of texts and an understanding of other cultural perspectives. They will also have developed skills of analysis and the ability to support an argument in clearly expressed writing, sometimes at significant length. This course will enable them to succeed in a wide range of university courses, particularly in literature but also in subjects such as philosophy, law and language.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills an English/Language Arts requirement for all diplomas
- New assessment in 2021

1132 IB Language A: Literature Standard Level (LA LIT S IB)

The IB Diploma Programme language A: literature standard level course develops understanding of the techniques involved in literary criticism and promotes the ability to form independent literary judgments. In language A: literature, the formal analysis of texts and wide coverage of a variety of literature—both in the language of the subject and in translated texts from other cultural domains—is combined with a study of the way literary conventions shape responses to texts. Students completing this course will have a thorough knowledge of a range of texts and an understanding of other cultural perspectives. They will also have effectively developed skills of analysis and the ability to support an argument in clearly expressed writing, sometimes at significant length. The course will enable them to succeed in a wide

range of university courses, particularly in literature but also in subjects such as philosophy, law and language.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills an English/Language Arts requirement for all diplomas
- New assessment in 2021

2600 IB Language A-Literature A: Literature School Supported Self-Taught (LA LIT SSST IB)

This course is part of the studies in language and literature group. It is not meant to be a replacement for the Language A: literature guide. Being a self-taught student offers a unique opportunity to study the literature of a language that may not be offered at one's school as a taught subject. A certain level of autonomy is expected, for example you will be asked to develop a list of literary works and a timeline. You will also be expected to autonomously administer the 150 hours required for the study of the course. Language A: literature SSST is similar to the taught course, which is built on the notion of conceptual learning. This means that the course is organized around concepts, or big ideas, which makes it easier to form connections between subjects and between parts of a course. Concepts are important as they are applicable and transferable to real-life situations. In this course, the central concepts are culture, communication, transformation, perspective, creativity, representation, and identity.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills an English/Language Arts requirement for all diplomas

1136 IB Language A: Language and Literature Higher Level (LA LAL H IB)

The language A: language and literature higher level course aims to develop skills of textual analysis and the understanding that texts, both literary and non-literary, can relate to culturally determined reading practices, and to encourage students to question the meaning generated by language and texts. An understanding of the ways in which formal elements are used to create meaning in a text is combined with an exploration of how that meaning is affected by reading practices that are culturally defined and by the circumstances of production and reception. Helping students to focus closely on the language of studied texts and to become aware of the role of wider context in shaping meaning is central to the course. The study of literature in translation from other cultures is especially important to IB DP students because it contributes to a global perspective. Texts are chosen from a variety of sources, genres and media.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills an English/Language Arts requirement for all diplomas

- New assessment in 2021

1138 IB Language A: Language and Literature Standard Level (LA LAL S IB)

The language A: language and literature standard level course aims to develop skills of textual analysis and the understanding that texts, both literary and non-literary, can relate to culturally determined reading practices, and to encourage students to question the meaning generated by language and texts. An understanding of the ways in which formal elements are used to create meaning in a text is combined with an exploration of how that meaning is affected by reading practices that are culturally defined and by the circumstances of production and reception. Helping students to focus closely on the language of studied texts and to become aware of the role of wider context in shaping meaning is central to the course. The study of literature in translation from other cultures is especially important to IB DP students because it contributes to a global perspective. Texts are chosen from a variety of sources, genres and media.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills an English/Language Arts requirement for all diplomas
- New assessment in 2022

1134 IB Literature and Performance Standard Level (LP S IB)

IB Literature and Performance Standard Level is based on curriculum published by the International Baccalaureate Organization. The course is an interdisciplinary synthesis of language A and theater. It incorporates essential elements of literature and performance and aims to explore the dynamic relationship between the two. At the heart of the course is the interaction between (1) a conventional literary emphasis on close reading, critical writing and discussion and (2) the practical, aesthetic and symbolic elements of performance. A distinctive outcome of this synthesis is the performance of a piece transformed from poetry or prose. In this creative process, text is viewed from different angles in a way that goes beyond what is characteristic of either literary or theater studies as single disciplines. Through examination of both literary and dramatic texts, the course develops intellect, imagination, and creativity. It encourages intercultural awareness through a study of texts from more than one culture. (Available at standard level only).

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills an English/Language Arts requirement for all diplomas
- Available at standard level only

2590 IB Mathematics: Analysis and Approaches Higher Level (MATH A&A H IB)

The IB Mathematics: Analysis and Approaches course is intended for students who wish to pursue studies in mathematics at university or subjects that have a large mathematical content. It is for students who enjoy developing mathematical arguments, problem solving, and exploring real and abstract applications, with and without technology. Core topics provide students the opportunity to

engage in detailed study of numbers and algebra, functions, geometry and trigonometry, statistics and probability, and calculus.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Recommended Prerequisites: students should have very strong Algebra II skills
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills a Mathematics course requirement for Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas
- Qualifies as a quantitative reasoning course

2588 IB Mathematics: Analysis and Approaches Standard Level (MATH A7A S IB)

The IB Mathematics: Analysis and Approaches course is intended for students who wish to pursue studies in mathematics at university or subjects that have a large mathematical content. It is for students who enjoy developing mathematical arguments, problem solving, and exploring real and abstract applications, with and without technology. Core topics provide students the opportunity to engage in detailed study of numbers and algebra, functions, geometry and trigonometry, statistics and probability, and calculus.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Recommended Prerequisites: students should have strong Algebra II skills
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills a Mathematics course requirement for Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas
- Qualifies as a quantitative reasoning course

2594 IB Mathematics: Applications and Interpretations Higher Level (MATH A&H IB)

The IB Mathematics: Applications and Interpretations course is designed for students who enjoy describing the real world and solving practical problems using mathematics, those who are interested in harnessing the power of technology alongside exploring mathematical models, and who enjoy the more practical side of mathematics. Core topics provide students the opportunity to engage in detailed study of numbers and algebra, functions, geometry and trigonometry, statistics and probability, and calculus.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Recommended Prerequisites: students should have strong Algebra II skills
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills a Mathematics course requirement for Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas
- Qualifies as a quantitative reasoning

2592 IB Mathematics: Applications and Interpretations Standard Level (MATH A&I IB)

The IB Mathematics: Applications and Interpretations course is designed for students who enjoy describing the real world and solving practical problems using mathematics, those who are interested in harnessing the power of technology alongside exploring mathematical models, and who enjoy the more practical side of mathematics. Core topics provide students the opportunity to engage in detailed study of numbers and algebra, functions, geometry and trigonometry, statistics and probability, and calculus.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Recommended Prerequisites: students should have strong Algebra I skills
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills a Mathematics course requirement for Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas
- Qualifies as a quantitative reasoning course

4212IB Music Higher Level (MUS H IB)

The IB Music Higher Level course seeks to develop students ’knowledge and potential as musicians, both personally and collaboratively. IB Diploma Programme Music students are required to study musical perception and actively listen to a wide range of music from different parts of the world, musical cultures, and time periods. They also develop aural perception and understanding of music by learning about musical elements, including form and structure, notations, musical terminology, and context. Through the course of study, students become aware of how musicians work and communicate.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors Diploma

4214 IB Music Standard Level (MUS S IB)

The IB Music Standard Level course seeks to develop students ’knowledge and potential as musicians, both personally and collaboratively. IB Diploma Programme Music students are required to study musical perception and actively listen to a wide range of music from different parts of the world, musical cultures, and time periods. They also develop aural perception and understanding of music by learning about musical elements, including form and structure, notations, musical terminology, and context. Through the course of study, students become aware of how musicians work and communicate.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none

- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors Diploma

1600 IB Philosophy Higher Level
(PHIL H IB)

The IB Philosophy Higher Level course provides an opportunity for students to engage with some of the world's most interesting and influential thinkers. It also develops highly transferable skills such as the ability to formulate arguments clearly, to make reasoned judgments, and to evaluate highly complex and multifaceted issues. The course is focused on stimulating students' intellectual curiosity and encouraging them to examine both their own perspectives and those of others. Students are challenged to develop their own philosophical voice and to grow into independent thinkers. Teachers explicitly teach thinking and research skills such as comprehension, text analysis, transfer, and use of primary sources.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as a Social Studies credit for the General diploma
- Counts as an elective for all diplomas

1602 IB Philosophy Standard Level
(PHIL S IB)

The IB Philosophy Standard Level course provides an opportunity for students to engage with some of the world's most interesting and influential thinkers. It also develops highly transferable skills such as the ability to formulate arguments clearly, to make reasoned judgments, and to evaluate highly complex and multifaceted issues. The emphasis of the IB philosophy course is on "doing philosophy", that is, on actively engaging students in philosophical activity. The course is focused on stimulating students' intellectual curiosity and encouraging them to examine both their own perspectives and those of others. Students are challenged to develop their own philosophical voice and to grow into independent thinkers. Teachers explicitly teach thinking and research skills such as comprehension, text analysis, transfer, and use of primary sources.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as a Social Studies credit for the General diploma
- Counts as an elective for all diplomas

3096 IB Physics Higher Level
(PHY H IB)

IB Physics Higher Level is designed to introduce students to the laws of physics, the experimental skills required in physics, and the social and historical aspects of physics as an evolving body of human knowledge about nature. It is based on the curriculum published by the International Baccalaureate Organization. Students study six topics: physics and physical measurement, mechanics, thermal physics, waves, electricity and magnetism, and atomic and nuclear physics. Students must complete additional study in six topics: measurement and uncertainties, mechanics, thermal physics, wave phenomena,

electromagnetism, and quantum and nuclear physics. Optional course topics from which the student may only choose two include biomedical physics, the history and development of physics, astrophysics, relativity, and optics.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills a Physics I requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors
- Fulfills a Science Course requirement of the General and International Baccalaureate diplomas
- Qualifies as a quantitative reasoning course

3098 IB Physics Standard Level
(PHY S IB)

IB Physics Standard Level is designed to introduce students to the laws of physics, the experimental skills required in physics, and the social and historical aspects of physics as an evolving body of human knowledge about nature. It is based on the curriculum published by the International Baccalaureate Organization. Students study six topics: physics and physical measurement, mechanics, thermal physics, waves, electricity and magnetism, and atomic and nuclear physics. Students must complete additional study in six topics: measurement and uncertainties, mechanics, thermal physics, wave phenomena, electromagnetism, and quantum and nuclear physics. Optional course topics from which the student may only choose two include biomedical physics, the history and development of physics, astrophysics, relativity, and optics. Further options would be mechanics extension, quantum physics, nuclear physics, and further energy.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills a Physics I requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors
- Fulfills a Science Course requirement of the General and International Baccalaureate diplomas
- Qualifies as a quantitative reasoning course

1604 IB Psychology Higher Level
(PSY H IB)

The IB Psychology Higher Level course aims to develop an awareness of how research findings can be applied to better understand human behavior and how ethical practices are upheld in psychological inquiry. Students learn to understand the biological, cognitive, and sociocultural influences on human behavior and explore alternative explanations of behavior. They also understand and use diverse methods of psychological inquiry.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester

- Counts as a Social Studies credit for the General diploma only
- Counts as an elective for all diplomas

1606 IB Psychology Standard Level (PSY S IB)

The IB Psychology Standard Level course aims to develop an awareness of how research findings can be applied to better understand human behavior and how ethical practices are upheld in psychological inquiry. Students learn to understand the biological, cognitive, and sociocultural influences on human behavior and explore alternative explanations of behavior. They also understand and use diverse methods of psychological inquiry.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as a Social Studies credit for the General diploma only
- Counts as an elective for all diplomas

1608 IB Social and Cultural Anthropology Higher Level (SCAN H IB)

The IB Social and Cultural Anthropology Higher Level course offers an opportunity for students to become acquainted with anthropological perspectives and ways of thinking, and to develop critical, reflexive knowledge. Social and cultural anthropology contributes a distinctive approach to intercultural awareness and understanding, which embodies the essence of an IB education. Anthropology fosters the development of citizens who are globally aware and ethically sensitive. The social and cultural anthropology course for both SL and HL students is designed to introduce the principles, practices, and materials of the discipline.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as a Social Studies credit for the General diploma only
- Counts as an elective for all diplomas

1610 IB Social and Cultural Anthropology Standard Level (SCAN S IB)

The IB Social and Cultural Anthropology Standard Level course offers an opportunity for students to become acquainted with anthropological perspectives and ways of thinking, and to develop critical, reflexive knowledge. Social and cultural anthropology contributes a distinctive approach to intercultural awareness and understanding, which embodies the essence of an IB education. Anthropology fosters the development of citizens who are globally aware and ethically sensitive. The social and cultural anthropology course for both SL and HL students is designed to introduce the principles, practices, and materials of the discipline.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as a Social Studies credit for the General diploma only

- Counts as an elective for all diplomas

1614 IB Sports, Exercise, and Health Sciences Higher Level (SEHS H IB)

IB Sports, Exercise, and Health Science Higher Level involves the science that underpins physical performance and allows students opportunities to apply these principles both through inquiry and experimentation (field and laboratory). Topics must cover anatomy, exercise physiology, energy systems, movement analysis, skill in sport and measurement, and evaluation of human performance. Students are required to do in-depth study of two of the following options: optimizing physiological performance, psychology of sport, physical activity and health, and nutrition for sport, exercise, and health. Students taking this course will also address issues and ethics on an international scale by considering sport, exercise, and health within a global context relevant to the individual. The course is based on the curriculum published by the International Baccalaureate Organization.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills a Science requirement for all diplomas

3510 IB Sports, Exercise, and Health Sciences Standard Level (SEHS S IB)

IB Sports, Exercise, and Health Science Standard Level involves the science that underpins physical performance and allows students opportunities to apply these principles both through inquiry and experimentation (field and laboratory). Topics must cover anatomy, exercise physiology, energy systems, movement analysis, skill in sport and measurement, and evaluation of human performance. Students are required to do in-depth study of two of the following options: optimizing physiological performance, psychology of sport, physical activity and health, and nutrition for sport, exercise, and health. Students taking this course will also address issues and ethics on an international scale by considering sport, exercise, and health within a global context relevant to the individual. The course is based on the curriculum published by the International Baccalaureate Organization.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills a Science requirement for all diplomas

4262 IB Theatre Arts Higher Level (THTR H IB)

The IB Theatre Arts Higher Level course is multifaceted and gives students the opportunity to actively engage in theatre as creators, designers, directors, and performers. It emphasizes working both individually and collaboratively as part of an ensemble. The teacher’s role is to create opportunities that allow students to explore, learn, discover, and collaborate to become autonomous, informed, and skilled theatre-makers. Students learn to apply research and theory to inform and to contextualize their work. Through researching, creating, preparing, presenting, and critically reflecting on theatre, they gain a richer understanding of themselves, their community, and the world. Students experience the

course from contrasting artistic and cultural perspectives. They learn about theatre from around the world, the importance of making theatre with integrity, and the impact that theatre can have on the world. It enables them to discover and engage with different forms of theatre across time, place, and culture, promoting international- mindedness and an appreciation of the diversity of theatre.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors Diploma
- New assessment 2023

4264 IB Theater Arts Standard Level (THTR S IB)

The IB Theater Arts Standard Level course is multifaceted and gives students the opportunity to actively engage in theater as creators, designers, directors, and performers. It emphasizes working both individually and collaboratively as part of an ensemble. The teacher's role is to create opportunities that allow students to explore, learn, discover, and collaborate to become autonomous, informed, and skilled theater-makers. Students learn to apply research and theory to inform and to contextualize their work. Through researching, creating, preparing, presenting, and critically reflecting on theater, they gain a richer understanding of themselves, their community, and the world. Students experience the course from contrasting artistic and cultural perspectives. They learn about theater from around the world, the importance of making theater with integrity, and the impact that theater can have on the world. It enables them to discover and engage with different forms of theater across time, place, and culture, promoting international- mindedness and an appreciation of the diversity of theater.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as a directed elective for elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors Diploma
- New assessment 2023

0560 IB Theory of Knowledge (TOK IB)

IB Theory of Knowledge (TOK) is a course about critical thinking and inquiring into the process of knowing, rather than about learning a specific body of knowledge. It plays a special role in the DP by providing an opportunity for students to reflect on the nature of knowledge, to make connections between areas of knowledge, and to become aware of their own perspectives and those of the various groups whose knowledge they share. It is a core element undertaken by all DP students, and schools are required to devote at least 100 hours of class time to the course. The overall aim of TOK is to encourage students to formulate answers to the question "how do you know?" in a variety of contexts, and to see the value of that question. This allows students to develop an enduring fascination with the richness of knowledge.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none

- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as a directed elective or elective all diplomas

4090 IB Visual Arts Higher Level
(VA H IB)

The IB Visual Arts Higher Level course encourages students to challenge their own creative and cultural expectations and boundaries. It is a thought-provoking course in which students develop analytical skills in problem-solving and divergent thinking, while working towards technical proficiency and confidence as art-makers. In addition to exploring and comparing visual arts from different perspectives and in different contexts, students are expected to engage in, experiment with, and critically reflect upon a wide range of contemporary practices and media. The course is designed for students who want to go on to further study of visual arts in higher education as well as for those who are seeking lifelong enrichment through visual arts. The role of visual arts teachers should be to actively and carefully organize learning experiences for the students, directing their study to enable them to reach their potential, and satisfy the demands of the course. Students should be empowered to become autonomous, informed, and skilled visual artists.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors Diploma

4092 IB Visual Arts Standard Level
(VA S IB)

The IB Visual Arts Standard Level course encourages students to challenge their own creative and cultural expectations and boundaries. It is a thought-provoking course in which students develop analytical skills in problem-solving and divergent thinking, while working towards technical proficiency and confidence as art-makers. In addition to exploring and comparing visual arts from different perspectives and in different contexts, students are expected to engage in, experiment with and critically reflect upon a wide range of contemporary practices and media. The course is designed for students who want to go on to further study of visual arts in higher education as well as for those who are seeking lifelong enrichment through visual arts. The role of visual arts teachers should be to actively and carefully organize learning experiences for the students, directing their study to enable them to reach their potential, and satisfy the demands of the course. Students should be empowered to become autonomous, informed, and skilled visual artists.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors Diploma

2310 IB World Language ab Initio Standard Level
(WL AIS IB)

The IB language ab initio Standard Level course is designed to provide students with the necessary skills and intercultural understanding to enable them to communicate successfully in an environment where the language studied is spoken. This process encourages the learner to go beyond the confines

of the classroom, expanding an awareness of the world and fostering respect for cultural diversity. The language ab initio course develops students 'linguistic abilities through the development of receptive, productive, and interactive skills by providing them with opportunities to respond and interact appropriately in a defined range of everyday situations.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as a World Language credit for all diplomas
- Counts as an elective or directed elective for all diplomas

2306 IB World Language B Higher Level (WLB H IB)

The IB Language B Higher Level course provides students with the opportunity to acquire or develop an additional language and to promote an understanding of other cultures through the study of language. Language B is designed for students who possess a degree of knowledge and experience in the target language. Those learning a language B at a higher level should be able to follow university courses in other disciplines in the language B that is studied.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as a World Language credit for all diplomas
- Counts as an elective or directed elective for all diplomas
- In the Classical languages: new course assessment 2023

2308 IB World Language B Standard Level (WLB S IB)

The IB language B Standard Level course provides students with the opportunity to acquire or develop an additional language and to promote an understanding of other cultures through the study of language. Language B is designed for students who possess a degree of knowledge and experience in the target language. High performing standard level students should be able to follow university courses in other disciplines in the language B that is studied.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as a World Language credit for all diplomas
- Counts as an elective or directed elective for all diplomas
- In the Classical languages: new course assessment 2023

1588 IB World Religions Standard Level (WREL S IB)

The IB World Religions Standard Level course is a systematic, analytical, yet empathetic study of the variety of beliefs and practices encountered in nine main religions of the world. The course seeks to promote an awareness of religious issues in the contemporary world by requiring the study of a diverse range of religions. Religions are studied in such a way that students acquire a sense of what it

is like to belong to a particular religion and how that influences the way in which the followers of that religion understand the world, act in it, and relate and respond to others.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 or 4 semester course, 1 credit per semester
- Fulfills an elective requirement for all diplomas

Mathematics Courses

2543 Advanced Mathematics, Special Topics (ADV MATH ST)

Advanced Mathematics, Special Topics is the course title that is to be used for reporting by schools that offer mathematics courses beyond the scope of approved courses. Schools must apply to the Indiana Department of Education for a nonstandard course waiver. The non-standards course waiver will provide a proposed course description, standards students will meet for the course, how the special topics course relates to students' needs, and rationale describing post-secondary/higher education and business/industry need and support for the course. Schools will follow the special topics non-standards course waiver framework and provide feedback to the Indiana Department of Education at the end of the course.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Algebra II or Integrated Mathematics III
- 1 semester course, 1 credit per semester; May be offered for successive semesters
- Fulfills a Mathematics course requirement for all diplomas

2516 Algebra I Lab
(ALG I LAB)

Algebra I Lab is a mathematics support course for Algebra I. Algebra I Lab is taken while students are concurrently enrolled in Algebra I. This course provides students with additional time to build the foundations necessary for high school math courses, while concurrently having access to rigorous, grade-level appropriate courses. The five critical areas of Algebra I Lab align with the critical areas of Algebra I: Relationships between Quantities and Reasoning with Equations; Linear and Exponential Relationships; Descriptive Statistics; Expressions and Equations; and Quadratic Functions and Modeling. However, whereas Algebra I contains exclusively grade-level content, Algebra I Lab combines standards from high school courses with foundational standards from the middle grades.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- 2 semester course, 1 credit per semester
- Fulfills a Mathematics course requirement for the General Diploma only or as an elective for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- Algebra I Lab is designed as a support course for Algebra I. As such, a student taking Algebra I Lab must also be enrolled in Algebra I during the same academic year.

2516 Applied Algebra I Lab
(ALG I LAB)

Applied Algebra I Lab is a mathematics support course. Algebra I Lab should be taken while students are concurrently enrolled in a math course or have met the math requirements for the certificate of completion. This course provides students with additional time to build the foundations necessary for high school math courses and work on specific, individualized math skills, while concurrently having access to rigorous, grade-level appropriate courses. The five critical areas align with the critical areas of Math: Number Sense; Computation; Data Analysis; Geometry and Measurement; and Algebraic Thinking. Algebra I Lab combines standards from high school courses with foundational standards from the middle grades.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- 4 units maximum
- Fulfills an elective for the Certificate of Completion

2520 Algebra I
(ALG I)

Algebra I formalizes and extends the mathematics students learned in the middle grades. Algebra I is made up of six strands: Real Numbers and Expressions; Functions; Linear Equations, Inequalities, and Functions; Systems of Equations and Inequalities; Quadratic and Exponential Equations and Functions; and Data Analysis and Statistics. These critical areas deepen and extend understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend. Students will also engage in methods for analyzing, solving, and using quadratic functions. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of

problem situations.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- 2 semester course, 1 credit per semester
- Fulfills a Mathematics course requirement for all diplomas
- Fulfills the Algebra I/Integrated Mathematics I requirement for all diplomas
- Students pursuing Core 40, Core 40 with Academics Honors, or Core 40 with Technical Honors diploma should receive credit for Algebra I by the end of Grade 9

2520 Applied Algebra I
(ALG I)

Applied Algebra I formalizes and extends the mathematics students learned in the middle grades. Algebra I is made up of five strands: Numbers Sense; Expressions and Computation; Linear Equations; Inequalities and Functions; Systems of Equations and Inequalities and Quadratic and Exponential Equations and Functions. The strands are further developed by focusing on the content of the Algebra content connectors.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- 4 units maximum
- Fulfills a Math requirement for the Certificate of Completion

2522 Algebra II
(ALG II)

Algebra II builds on work with linear, quadratic, and exponential functions and allows for students to extend their repertoire of functions to include polynomial, rational, and radical functions. Students work closely with the expressions that define the functions, and continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. Algebra II is made up of seven strands: Complex Numbers and Expressions; Functions; Systems of Equations; Quadratic Equations and Functions; Exponential & Logarithmic Equations and Functions; Polynomial, Rational, and Other Equations and Functions; and Data Analysis, Statistics, and Probability. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Algebra I
- 2 semester course, 1 credit per semester
- Fulfills a Mathematics course requirement for all diplomas
- Fulfills the Algebra II/Integrated Mathematics III requirement for all diplomas

2524 Analytical Algebra II
(ANA ALG)

Analytical Algebra II builds on previous work with linear, quadratic and exponential functions and extends to include polynomial, rational, radical, logarithmic, and other functions. Data analysis,

statistics, and probability content should be included throughout the course, as students collect and use univariate and bivariate data to create and interpret mathematical models. Additionally, Analytical Algebra II should focus on the application of mathematics in various disciplines including business, finance, science, career and technical education, and social sciences using technology to model real-world problems with various functions, using and translating between multiple representations. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. This course is not recommended for students interested in pursuing a STEM degree at a four-year institution; this course does not prepare students for Precalculus: Algebra / Precalculus Trigonometry.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Algebra I
- 2 semester course, 1 credit per semester
- Fulfills the Algebra II/Integrated Mathematics III requirement for all diplomas
- If students use this course to fulfill this credit, the parent and student must sign a consent form notifying the parent and the student that enrollment in Analytical Algebra II may affect the student's ability to attend a particular post-secondary educational institution or enroll in a particular course at a particular post-secondary educational institution because Analytical Algebra II may not align with academic requirements established by the post- secondary educational institution..

2527 Calculus
(CALC)

Calculus expands a student's knowledge of topics like functions, graphs, limits, derivatives, and integrals. Additionally, students will review algebra and functions, modeling, trigonometry, etc. Calculus is made up of five strands: Limits and Continuity; Differentiation; Applications of Derivatives; Integrals; and Applications of Integrals. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Pre-Calculus: Algebra and Pre-Calculus: Trigonometry
- 2 semester course, 1 credit per semester
- Fulfills a Mathematics course requirement for all diplomas

2514 CCR Bridge: Math Ready
(MATH RDY)

The CCR Bridge: Math Ready course will include and reinforce the Algebra I, Geometry, Algebra II, and Statistics skills necessary to be ready for an entry-level college math course. This course emphasizes understanding of math concepts rather than just memorizing procedures. Math Ready students learn the context behind the procedure (e.g., why to use a certain formula or method to solve a problem). This equips them with higher-order thinking skills in order to apply math skills, functions, and concepts in different situations. The course is intended for students who currently have achieved the minimum math requirements for college entry. The content of this course is designed to enhance students' math skills so that they are ready for college-level math assignments. It is not designed to prepare students for college-level math in STEM majors.

- Recommended Grade: 12
- Required Prerequisites: none
- Recommended Prerequisites: Algebra II or Analytical Algebra II or Integrated Mathematics III
- 2 semester course, 1 credit per semester
- Fulfills a Mathematics course requirement for all diplomas

2595 PRIME Math (New for approved schools in 2020-2021) (PRIME)

The PRIME Math course utilizes a curriculum developed by the Southern Regional Education Board (SREB), that includes and reinforces the Algebra I, Geometry, Algebra II, and Statistics skills necessary for postsecondary success. This course emphasizes understanding of math concepts rather than just memorizing procedures. PRIME math emphasizes students' reasoning and sense making about procedures (e.g., why to use a certain formula or method to solve a problem). This equips them with higher-order thinking skills in order to apply math skills, functions, and concepts in different situations. The course is intended for students who currently have achieved the minimum math requirements at the secondary level, but need additional experiences to enhance their mathematical knowledge before pursuing credit-bearing courses at a postsecondary institution. In order to offer this course, the instructor must have received training by SREB or IDOE. Additionally, the school and the instructor must commit to teaching the PRIME math curriculum with fidelity.

- Recommended Grade: 12
- Required Prerequisites: Algebra II or Analytical Algebra II or Integrated Mathematics III
- Recommended Prerequisites: none
- 2 semester course, 1 credit per semester
- Fulfills a Mathematics course requirement for all diplomas

2530 Finite Mathematics (FINITE)

Finite Mathematics is a collection of mathematical topics, frequently used in business or public policy contexts. It is a course designed for students who will undertake higher-level mathematics in college that may not include calculus. Finite Math is made up of five strands: Sets; Matrices; Networks; Optimization; and Probability. The skills listed in these strands indicate what students should know and be able to do in Finite Math. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Algebra II or Integrated Mathematics III or Analytical Algebra II
- Credits: 1 or 2 semester course, 1 credit per semester,
- Fulfills a Mathematics course requirement for all diplomas

2532 Geometry (GEOM)

Geometry formalizes and extends students’ geometric experiences from the middle grades. Students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. Seven critical areas comprise the Geometry course: Logic and Proofs; Points, Lines, Angles, and Planes; Triangles; Quadrilaterals and Other Polygons;

Circles; Transformations; and Three-dimensional Solids. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Algebra I
- 2 semester course, 1 credit per semester
- Fulfills a Mathematics course requirement for all diplomas
- Fulfills the Geometry/Integrated Mathematics II requirement for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diploma

2532 Applied Geometry (GEOM)

Applied Geometry formalizes and extends students ’geometric experiences from the middle grades. These critical areas comprise the Geometry course: Points, Lines, Angles, and Planes; Triangles; Quadrilaterals and Other Polygons; Circles; Transformations; and Three- dimensional Solids. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- 4 units maximum
- Fulfills a Mathematics course requirement for the Certificate of Completion

2518 Integrated Mathematics I Lab (INT MATH ENRICH)

Integrated Mathematics I Lab is a mathematics support course for Integrated Mathematics I. Integrated Mathematics I Lab is taken while students are concurrently enrolled in Integrated Mathematics I. This course provides students with additional time to build the foundations necessary for high school math courses, while concurrently having access to rigorous, grade- level appropriate courses. The six critical areas of Integrated Mathematics I Lab align with the critical areas of Integrated Mathematics I: Relationships between Quantities; Linear and Exponential Relationships; Reasoning with Equations; Descriptive Statistics; Congruence, Proof, and Constructions; and Connecting Algebra and Geometry through Coordinates. However, whereas Integrated Mathematics I contains exclusively grade-level content, Integrated Mathematics I Lab combines standards from high school courses with foundational standards from the middle grades.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- 2 semester course, 1 credit per semester
- Fulfills a Mathematics course requirement for the General Diploma only or as an elective for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- Integrated Mathematics I Lab is designed as a support course for Integrated Mathematics. As such, a student taking Integrated Mathematics I Lab must also be enrolled in Integrated Mathematics I during the same academic year.

2554 Integrated Mathematics I
(INT MATH I)

Integrated Mathematics I formalizes and extends the mathematics students learned in the middle grades. The critical areas deepen and extend understanding of linear relationships, in part by contrasting them with exponential phenomena, and in part by applying linear models to data that exhibit a linear trend. Integrated Mathematics I uses properties and theorems involving congruent figures to deepen and extend understanding of geometric knowledge from prior grades. The final unit in the course ties together the algebraic and geometric ideas studied. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- 2 semester course, 1 credit per semester
- Fulfills a Mathematics course requirement for all diplomas
- Fulfills the Algebra I/Integrated Mathematics I requirement for all diplomas

2556 Integrated Mathematics II
(INT MATH II)

Integrated Mathematics II focuses on quadratic expressions, equations, and functions by comparing their characteristics and behavior to those of linear and exponential relationships from Integrated Mathematics I. The need for extending the set of rational numbers arises and real and complex numbers are introduced so that all quadratic equations can be solved. The link between probability and data is explored through conditional probability and counting methods, including their use in making and evaluating decisions. The study of similarity leads to an understanding of right triangle trigonometry and connects to quadratics through Pythagorean relationships. Circles, with their quadratic algebraic representations, round out the course. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Integrated Mathematics I
- 2 semester course, 1 credit per semester
- Fulfills a Mathematics course requirement for all diplomas
- Fulfills the Geometry/Integrated Mathematics II requirement for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

2558 Integrated Mathematics III
(INT MATH III)

Integrated Mathematics III provides students the opportunity to pull together and apply the accumulation of learning that they have from their previous courses. They apply methods from probability and statistics to draw inferences and conclusions from data. Students expand their repertoire of functions to include polynomial, rational, and radical functions. They expand their study of right triangle trigonometry to include general triangles. Finally, students bring together all of their experiences with functions and geometry to create models and solve contextual problems. The eight Process Standards for Mathematics apply

throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Integrated Mathematics II
- 2 semester course, 1 credit per semester
- Fulfills a Mathematics course requirement for all diplomas
- Fulfills the Algebra II/Integrated Mathematics III requirement for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

2560 Mathematics Lab
(MATH LAB)

Mathematics Lab provides students with individualized instruction designed to support success in completing mathematics coursework aligned with Indiana's Academic Standards for Mathematics. Mathematics Lab is to be taken in conjunction with a Core 40 mathematics course, and the content of Mathematics Lab should be tightly aligned to the content of its corresponding course. Mathematics Lab should not be offered in conjunction with Algebra I or Integrated Mathematics I; instead, schools should offer Algebra I Lab or Integrated Mathematics I Lab to provide students with rigorous support for these courses.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- 1 semester course, 1 credit per semester, 8 credits maximum
- Fulfills an elective course requirement for all diplomas
- Clarifying information can be appended to the end of the course title to denote the content covered in each course. Example: Mathematics Lab used to support students in Algebra II can be recorded on the transcript as Mathematics Lab – Algebra II.

2560 Applied Mathematics Lab
(MATH LAB)

Applied Mathematics Lab provides students with individualized instruction designed to increase math related competencies and/or mathematics coursework aligned with Indiana's Academic Standards or Content Connectors for Mathematics.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- 4 units maximum
- Fulfills an elective course requirement for the Certificate of Completion

2564 Pre-Calculus: Algebra
(PRECAL AL)

Pre-Calculus: Algebra extends the foundations of algebra and functions developed in previous courses to new functions, including exponential and logarithmic functions, and to sequences and series. The course provides students with the skills and understandings that are necessary for advanced manipulation of angles and measurement. Pre-Calculus: Algebra is made up of five strands: Functions; Quadratic, Polynomial, and Rational Equations and Functions; Exponential and Logarithmic

Functions; Sequences and Series; and Conics. The course is designed for students who expect math to be a major component of their future college and career experiences, and as such it is designed to provide students with strong foundations for calculus and other higher-level math courses. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Algebra II and Geometry or Integrated Mathematics III
- 1 semester course, 1 credit per semester
- Fulfills a Mathematics course requirement for all diplomas

2546 Probability and Statistics (PROB/STAT)

Probability and Statistics includes the concepts and skills needed to apply statistical techniques in the decision-making process. Probability and Statistics are made up of three strands: Data Analysis; Experimental Design; and Probability. Practical examples based on real experimental data are used throughout. Students plan and conduct experiments or surveys and analyze the resulting data. The use of graphing technology and computer programs is encouraged. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Algebra II or Integrated Mathematics III or Analytical Algebra II
- 1 semester course, 1 credit per semester
- Fulfills a Mathematics course requirement for all diplomas

2550 Quantitative Reasoning (QUANT REAS)

Quantitative Reasoning is a mathematics course focused on the study of numeracy, ratio and proportional reasoning, modeling, probabilistic reasoning to assess risk, and statistics. Students build knowledge of and confidence with basic mathematical/analytical concepts and operations required for problem solving, decision making, and economic productivity in real-world applications and prepare for an increasingly information-based society in which the ability to use and critically evaluate information, especially numerical information, is essential. Technology, such as computers and graphing calculators, should be used frequently. This higher-level mathematics course is designed to align with college-level quantitative reasoning courses for dual secondary/college credit. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Algebra II or Integrated Mathematics III or Analytical Algebra II
- 1 or 2 semester course, 1 credit per semester. Due to the level of rigor, it is recommended that this course be offered as a 2 semester, 2 credit course.
- Fulfills a Mathematics course requirement for all diplomas

2566 Pre-Calculus: Trigonometry
(PRECAL TRIG)

Pre-Calculus: Trigonometry provides students with the skills and understandings that are necessary for advanced manipulation of angles and measurement. Trigonometry provides the foundation for common periodic functions that are encountered in many disciplines, including music, engineering, medicine, finance, and nearly all other STEM disciplines. Trigonometry consists of six strands: Unit Circle; Triangles; Periodic Functions; Identities; Polar Coordinates and Complex Numbers; and Vectors. Students will advance their understanding of imaginary numbers through an investigation of complex numbers and polar coordinates. A strong understanding of complex and imaginary numbers is a necessity for fields such as engineering and computer programming. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Algebra II and Geometry or Integrated Mathematics III
- 1 semester course, 1 credit per semester
- Fulfills a Mathematics course requirement for all diplomas

Multidisciplinary Courses

0500 Basic Skills Development
(BAS SKLS)

Basic Skills Development is a multidisciplinary course that provides students continuing opportunities to develop basic skills including: (1) reading, (2) writing, (3) listening, (4) speaking, (5) mathematical computation, (6) note taking, (7) study and organizational skills, and (8) problem-solving skills, which are essential for high school course work achievement. Determination of the skills to be emphasized in this course is based on Indiana's standards, individual school corporation general curriculum plans, and the student's Individualized Education Programs (IEP) or other individualized plans. Skills selected for developmental work provide students with the ability to continue to learn in a range of different life situations.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 credit per semester up to 8 semesters, 8 credits maximum
- Counts as an elective for all diplomas

0500 Applied Basic Skills Development
(BAS SKLS)

Applied Basic Skills Development is a multidisciplinary course that provides students continuing opportunities to develop basic skills including: (1) reading, (2) writing, (3) listening, (4) speaking, (5) mathematical computation, (6) note taking, (7) study and organizational skills, and (8) problem-solving skills, (9) employability skills, which are essential for high school achievement and post-secondary outcomes. Determination of the skills to be emphasized in this course is based on Indiana's standards and Content Connectors, individual school corporation general curriculum plans, and the student's

Individualized Education Programs (IEP) or other individualized plans. Skills selected for developmental work provide students with the ability to continue to learn in a range of different life situations and may be applied using instructional practices related to community-based instruction.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 8 units maximum
- Counts as an Employability Requirement, Capstone Course or elective for the Certificate of Completion

0502 Cadet Teaching Experience (CADET TCHG)

This elective course provides students in grades eleven (11) or twelve (12) organized exploratory teaching experiences in grades kindergarten (K) through grade nine (9). All teaching experiences should be preplanned by the high school Cadet Teaching Experience teacher-trainer and the cooperating teacher(s) who are supervising prospective teachers and providing them with pre-training experiences in one or more classes. This course provides a balance of class work relating to: (1) classroom organization, (2) classroom management, (3) the curriculum and instructional process, (4) observations of teaching, and (5) instructional experiences. Study topics and background reading provide the cadets with information concerning the teaching profession and the nature of the cadet teachers' assignments. Evaluation is based upon the cadet teachers' cooperation, day-to-day practical performance, and class work including the cadets' potential ability to teach. The total workload of the Cadet Teaching course is comparable to those for other subjects in the high school curriculum.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 credit per semester, up to 4 semesters, 4 credits maximum
- Counts as a directed elective or elective for all diplomas
- Cadet teaching experience for high school students is limited to grades kindergarten through grade nine

0522 Career Information and Exploration (CARR INFO)

Career Information and Exploration provides students with opportunities to learn about themselves and about various traditional and nontraditional occupations and careers. Students also gain an awareness of the type of occupational preparation or training needed for various occupations and careers. Students develop skills in: (1) employability, (2) understanding the economic process, and (3) career decision making and planning. Opportunities are provided for students to observe and participate in various job situations through opportunities such as field trips, internships, mock interviews, and guest speakers. Resume development experience and career- related testing are also provided to students.

- Recommended Grade: 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: Preparing for College and Careers
- Credits: 1 semester course, 1 credit per semester. Max 8 credits
- Counts as a directed elective or elective for all diplomas
- The nature of this course allows for successive semesters of instruction provided

progressively advanced proficiencies and content standards are utilized.

0522 Applied Career Information and Exploration (CARR INFO)

Applied Career Information and Exploration provides students with opportunities to learn about themselves including interests, strengths and needed supports while exploring various traditional and nontraditional occupations and careers. Students develop skills in: (1) employability, (2) understanding the economic process, and (3) career decision making and planning. Opportunities are provided for students to observe and participate in various job situations through opportunities such as community-based instruction, internships, mock interviews, and guest speakers. Portfolio and resume development experience and career- related assessments may also be provided to students.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 4 units maximum
- Counts as an Employability Requirement, Capstone Course or elective for the Certificate of Completion

0532 College-Entrance Preparation (COL-ENT PREP)

College-Entrance Preparation utilizes individual student score reports from the PSAT or other formative assessments to prepare students for college readiness assessments such as Indiana's Graduation Qualifying Exam, the SAT. Based on individual student score reports, students should receive targeted instruction to strengthen their foundations in critical reading, writing, and mathematics. Being "college ready" means being prepared for any post-secondary education or training experience, including readiness for study at two-year and four-year institutions leading to a post-secondary credential (i.e., a certificate, license, Associate's or bachelor's degree). A college-ready student has the necessary English and mathematics skills to qualify for and succeed in entry-level, credit-bearing college courses without the need for remedial coursework.

- Recommended Grade: Grade 11
- Required Prerequisites: English 9 and English 10 (or their equivalent), Algebra I and Geometry or Integrated Mathematics I and Integrated Mathematics II
- Recommended Prerequisites: Algebra II or Analytical Algebra II (or concurrent enrollment in Algebra II)
- Credits: 1 semester course, 1 credit per semester, 4 credits maximum
- Counts as an elective credit for all diplomas.
- The nature of this course allows for successive semesters of instruction provided progressively advanced proficiencies and content standards are utilized.

0524 Community Service (COMM SERV)

Community Service is a course created by public law IC 20-30-14. Community service allows students in grades nine through twelve (HEA 1629) the opportunity to earn up to two high school credits for completion of approved community service projects or volunteer service that "relates to a course in which the student is enrolled or intends to enroll." For each student who wishes to earn credit for community service or volunteer service under this law, the student, a teacher of the student, or a community or volunteer service organization must submit an application to the high school

principal including: 1) name of the community service organization or volunteer service organization the student intends to assist; 2) name, address, and telephone number of the director or supervisor of the community service organization or volunteer service organization and, if different from the director or supervisor, the name, address, and telephone number of the individual assigned by the community or volunteer service organization to supervise the student at the activity site; 3) nature of the community service or volunteer service performed by the student with a certification that the service performed by the student is voluntary; 4) total number of hours the student intends to serve the community service organization or volunteer service organization during the school year; 5) written statement by the director or the supervisor of the community service organization or volunteer service organization certifying that the information included in the application is an accurate reflection of: (a) the student's expectations with regard to the number of hours of service contemplated to be performed; and (b) the community service organization's or the volunteer service organization's need to acquire the student's service; 6) description of: (a) the educational or career exploration benefits the student and the school should expect to gain, including the student learning standards to be achieved, from the student's community or volunteer service participation; and (b) the service and benefit the community service organization or volunteer service organization expects to gain from the student's participation; 7) the description of how the community or volunteer service activity relates to a course in which the student is enrolled or intends to enroll; 8) manner and frequency in which the student and the community or volunteer service activity will be evaluated; 9) the name of the certificated school employee who will be responsible for monitoring and evaluating the student's activity and performance and assigning the student a grade for participation under this section; and 10) any other information required by the principal.
Community Service is a course created by public law IC 20-30-14. Community service allows students in grades nine through twelve (HEA 1629) the opportunity to earn up to two high school credits for completion of approved community service projects or volunteer service that “relates to a course in which the student is enrolled or intends to enroll.”

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 to 2 semester course, 1 credit per semester, up to 2 semesters, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Students must submit an application for this course by November 1.
- Go to www.iga.in.gov and search for Code IC 20-30-14 for more information

0524 Applied Community Service (COMM SERV)

Applied Community Service is a course created by public law IC 20-30-14. Community service allows students in grades nine through twelve (HEA 1629) the opportunity to earn up to two high school credits for completion of approved community service projects or volunteer service that “relates to a course in which the student is enrolled or intends to enroll.”

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 2 units maximum
- Counts as an Employability Requirement, Capstone Course or elective for the Certificate of Completion

3520 Driver Education (DRIVER ED)

Driver Education provides students with the knowledge needed to assist them in developing the skills, habits, and attitudes necessary to interact safely and effectively with other highway users in a wide variety of environments, situations, and conditions. This course should always provide a combination of classroom instruction and behind- the-wheel experiences in on-street environments. Whenever possible, the on-street observations and behind-the-wheel experiences should be supplemented with off street, multiple-car driving range and simulation experiences as listed in IAC 5116-6-7. The Driver Education course also provides for, but is not necessarily limited to, student learning related to: (1) driving skills, (2) traffic laws, (3) the laws of nature, (4) driving attitudes, (5) occupant protection, (6) the effect of physical and mental conditions of the driver, (7) vehicle purchase, (8) insurance and maintenance, (9) the ecology and energy efficiency of various transportation modes, (10) energy efficient driving techniques, and (11) sharing the roadway with other users, including motorcyclists and pedestrians.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 credit course
- Counts as an elective for all diplomas
- For any approved program, the student must complete both phases (classroom and laboratory) of the program in not more than three (3) consecutive semesters.

0512 Environmental Studies (ENV STUDIES)

Environmental Studies provides students opportunities to utilize several disciplines in examining ecosystems from a variety of human viewpoints. This course fosters an awareness of aesthetics in urban and rural areas and the ecological, economic, social, and political interdependence of environmental factors. It introduces students to the knowledge, attitudes, commitments, and skills needed to make decisions and to choose personal actions that will contribute to intelligent resource management. This course also provides students with the skills needed to investigate the ecological effects regarding the uses of: (1) energy, (2) water, (3) air, (4) soils, (5) minerals, (6) wildlife, and (7) other natural resources. Field trips and community investigations provide examples of practical applications of resource management. Topics include: (1) identifying and monitoring the disposal of hazardous wastes, (2) acid rain, (3) land- use practices ranging from wilderness areas to areas under multiple-use management, (4) water and solid waste treatment, (5) transportation systems, (6) human population demands on the land, and (7) the impact of these factors on the quality of life and the culture of the area.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 credit per semester up to 2 credits
- Counts as a directed elective or elective for all diplomas

0512 Applied Environmental Studies (ENV STUDIES)

Applied Environmental Studies provides students opportunities to utilize several disciplines in examining ecosystems from a variety of human viewpoints. This course fosters an awareness of aesthetics in urban and rural areas and the ecological, economic, social and political interdependence of environmental factors. It introduces students to the knowledge, attitudes, commitments, and skills needed to make decisions and to choose personal actions that will contribute to intelligent resource management. This

course also provides students with the skills needed to investigate the ecological effects regarding the uses of: (1) energy, (2) water, (3) air,
(4) soils, (5) minerals, (6) wildlife, and (7) other natural resources. Field trips and community investigations provide examples of practical applications of resource management. Topics include: (1) identifying and monitoring the disposal of hazardous wastes, (2) acid rain, (3) land- use practices ranging from wilderness areas to areas under multiple- use management, (4) water and solid waste treatment, (5) transportation systems, (6) human population demands on the land, and (7) the impact of these factors on the quality of life and the culture of the area.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 2 units maximum
- Counts as an Employability Requirement or elective for all diplomas

0514 Humanities (HUMANITIES)

A course in humanities provides for the study of content drawn from history, philosophy, literature, languages, and the arts. This course also includes an in-depth study of specific disciplines in these and related subject areas that could include: (1) linguistics; (2) archeology; (3) jurisprudence; (4) the history, theory, and criticism of the arts; (5) the history and philosophy of science; (6) ethics; (7) comparative religions; and (8) other aspects of the social sciences which relate to understanding life and the world. The emphasis of the course work is on developing an understanding of the content of the course and how to apply it to the human environment. Particular attention is given to the relevance of these applications regarding the current conditions of life.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 credit per semester up to 2 credits
- Counts as a directed elective or elective for all diplomas
- This course may qualify for Academic Honors Diploma credit if it meets the standards for specific language arts, social studies, or fine arts courses and is taught by teachers licensed in the specific subject areas.

0516 Junior Reserve Officer Training Corps (JR ROTC)

This course is designed to develop: (1) citizenship and patriotism, (2) self-discipline, (3) physical fitness, (4) reliance and leadership, and (5) the skills used in decision making, communications, and problem-solving. The course content and experiences enable the students to understand the role of the military in support of national objectives and to become familiar with basic military knowledge, gender equity issues, benefits, and requirements. Topics to be included in the course are: (1) military history, (2) ROTC in the military, (3) substance abuse, (4) map reading, (5) marksmanship and firearm safety, (6) military drill, (7) field activities, (8) reserve components, and (9) first aid and hygiene. Opportunities are provided to explore the qualities and traits of courage, self-sacrifice, and integrity. Junior Reserve Officer Training Corps programs must be approved by and meet the requirements of the appropriate military organization.

- Recommended Grade: none
- Required Prerequisites: none

- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester, up to 8 semesters, 8 credits maximum.
- Counts as an elective for all diplomas

3522 Motorcycle Safety Education (MTRCYCSFTY)

Motorcycle Safety Education consists of both classroom instruction and laboratory experiences, including experiences on an off-street, multi-vehicle driving range. The course provides for, but is not necessarily limited to, student learning related to: (1) motorcycle controls, (2) protective equipment, (3) riding skills, (4) basic maneuvers, (5) basic street riding, (6) advanced riding skills, (7) vehicle selection, (8) insurance and maintenance, (9) traffic laws, (10) the laws of nature, (11) adverse riding conditions, (12) sharing the roadway with other users, including pedestrians, (13) the transport of passengers and other loads, and (14) the effects of the physical and mental condition of the rider, including the hazards of alcohol and drug use.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: A non-credit course
- Counts as an elective for all diplomas
- It is recommended that any motorcycle safety education course be conducted by personnel who are instructor-certified by the Motorcycle Safety Foundation. The Motorcycle Safety Foundation's core curriculum should be used and may be expanded upon by the course instructor.

0520 Peer Tutoring (PEER TUTR)

Peer Tutoring provides high school students with an organized exploratory experience to assist students in kindergarten through grade twelve (K-12), through a helping relationship, with their studies and personal growth and development. The course provides opportunities for the students taking the course to develop a basic understanding of individual differences and to explore career options in related fields. Peer Tutoring experiences are preplanned by the teacher trainer and any cooperating teacher under whom the tutoring is to be provided. It must be conducted under the supervision of a licensed teacher. The course provides a balance of class work relating to the development of and use of: (1) listening skills, (2) communication skills, (3) facilitation skills, (4) decision-making skills, and (5) teaching strategies.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as an elective for all diploma

0539 Service Based Learning (SBL)

Service-based learning integrates meaningful service to enrich and apply academic knowledge, teach civic and personal responsibility (and other employability skills), and strengthen communities. SBL can be classified by three core indicators:

- Integrating academic study with service experience;

- Reflecting larger social, economic, and societal issues; and
- Collaborative efforts between students, schools, and community partners
- **This course code should be used to denote completion of the Graduation Pathways Employability Skills experience.**
- Recommended Grade: 9-12
- Required Prerequisites: None
- Recommended Prerequisites: Preparing for College & Careers
- Credits: 0 credits, the experience may stretch over multiple semesters & should not be marked as passing until the designated person responsible for approving the service-based learning experience validates the SBL work product.
- Qualifies as the employability skills requirement for all diplomas.

0543 Work Based Learning Level 1: Basic WBL Experience (WBL Lvl 1)

Work-based learning (WBL) is a strategy to reinforce academic, technical, and social skills learned in the classroom through collaborative activities with employer partners. Work-based learning experiences allow students to apply classroom theories to practical problems, to explore career options, and pursue personal and professional goals. WBL includes activities that can occur in workplaces or school-based enterprises and involve an employer assigning a student meaningful job tasks to develop his or her skills, knowledge, and readiness for work. It supports entry or advancement in a career field and can serve as the culminating course or event in a student's chosen career pathway. Through WBL, students have the opportunity to apply the concepts, skills, and dispositions learned in previous coursework in real world settings. Governor's Work Ethic Certificate or Career Exploration Internship- time dedicated to WBL experiences during the school day (e.g., student schedule allows ½ day off campus to experience world of work)

- Paid or non-paid experience
- Must have at least 5 hours per week dedicated to employability skill development through a Career Exploration Internship
- Post-secondary credential is not embedded in pathway; WBL experience only
- **This course code should be used to denote completion of the Graduation Pathways Employability Skills experience.**
- Recommended Grade: 9-12
- Required Prerequisites: None
- Recommended Prerequisites: Preparing for College & Careers
- Credits: 0 credits, the experience may stretch over multiple semesters & should not be marked as passing until the designated person responsible for approving the work-based learning experience validates the WBL work product.
- Qualifies as the employability skills requirement for all diplomas.

0544 Work Based Learning Level 2: WBL Capstone (WBL Lvl 2)

Work-based learning (WBL) is a strategy to reinforce academic, technical, and social skills learned in the classroom through collaborative activities with employer partners. Work-based learning experiences allow students to apply classroom theories to practical problems, to explore career options, and pursue personal and professional goals.
WBL includes activities that can occur in workplaces or school-based enterprises and involve an employer assigning a student meaningful job tasks to develop his or her skills, knowledge, and readiness for work. It supports entry or advancement in a career field and can serve as the culminating course or event in a

student's chosen career pathway. Through WBL, students have the opportunity to apply the concepts, skills, and dispositions learned in previous coursework in real world settings.

- WBL Capstones for Academic & CTE Pathways
- Previous completion or current enrollment in one advanced dual credit course
- Paid or non-paid experience
- Hours for Completion - minimum 75 hours
- Post-secondary credential embedded in pathway
- Academic Pathway: Indiana College Core
- CTE Pathway: Industry-Recognized Certification or Credential
- **This course code should be used to denote completion of the Graduation Pathways Employability Skills experience.**
- Recommended Grade: 9-12
- Required Prerequisites: None
- Recommended Prerequisites: Preparing for College & Careers
- Credits: 0 credits, the experience may stretch over multiple semesters & should not be marked as passing until the designated person responsible for approving the work-based learning experience validates the WBL work product.
- Qualifies as the employability skills requirement for all diplomas.

0545 Work Based Learning Level 3: Pre-Apprenticeship (WBL Lvl 3)

Work-based learning (WBL) is a strategy to reinforce academic, technical, and social skills learned in the classroom through collaborative activities with employer partners. Work-based learning experiences allow students to apply classroom theories to practical problems, to explore career options, and pursue personal and professional goals.
WBL includes activities that can occur in workplaces or school-based enterprises and involve an employer assigning a student meaningful job tasks to develop his or her skills, knowledge, and readiness for work. It supports entry or advancement in a career field and can serve as the culminating course or event in a student's chosen career pathway. Through WBL, students have the opportunity to apply the concepts, skills, and dispositions learned in previous coursework in real world settings.

- Pre-Apprenticeship: This level provides students with the potential to earn a CTE Concentrator with an embedded 3E Experience
- This pre-apprenticeship provides one year of the required credits needed in Level 4 and will be applied to Level 4 completion
- Sequence of Courses: CTE Concentrator and/or Indiana College Core embedded
- Paid or non-paid experience
- Hours for Completion - 650 hours over the 11th and 12th grade years
- Post-secondary CTE certificate or dual credit credential earned upon completion
- **This course code should be used to denote completion of the Graduation Pathways Employability Skills experience.**
- Recommended Grade: 9-12
- Required Prerequisites: None
- Recommended Prerequisites: Preparing for College & Careers
- Credits: 0 credits, the experience may stretch over multiple semesters & should not be marked as passing until the designated person responsible for approving the work-based learning experience validates the WBL work product.
- Qualifies as the employability skills requirement for all diplomas.

0546 Work Based Learning Level 4: Federal Registered Apprenticeship/Modern Youth Apprenticeship
(WBL Lvl 4)

Work-based learning (WBL) is a strategy to reinforce academic, technical, and social skills learned in the classroom through collaborative activities with employer partners. Work-based learning experiences allow students to apply classroom theories to practical problems, to explore career options, and pursue personal and professional goals.
WBL includes activities that can occur in workplaces or school-based enterprises and involve an employer assigning a student meaningful job tasks to develop his or her skills, knowledge, and readiness for work. It supports entry or advancement in a career field and can serve as the culminating course or event in a student's chosen career pathway. Through WBL, students have the opportunity to apply the concepts, skills, and dispositions learned in previous coursework in real world settings.

- Paid WBL experience
- Hours for Completion - approximately 2,000 hours
- 2–3-year duration
- Post-secondary CTE certificate or dual credit credential earned upon completion
- **This course code should be used to denote completion of the Graduation Pathways Employability Skills experience.**
- Recommended Grade: 9-12
- Required Prerequisites: None
- Recommended Prerequisites: Preparing for College & Careers
- Credits: 0 credits, the experience may stretch over multiple semesters & should not be marked as passing until the designated person responsible for approving the work-based learning experience validates the WBL work product.
- Qualifies as the employability skills requirement for all diplomas.

0547 Project Based Learning
(PBL)

Project-based learning allows students to gain knowledge and skills by working for an extended period of time to investigate and respond to an authentic, engaging and complex question, problem, or challenge. The project is framed by a meaningful problem to solve or a question to answer, at the appropriate level of challenge. Students engage in a rigorous, extended process of asking questions, finding resources, and applying information. Students often make their project work public by explaining, displaying and/or presenting it to people beyond the classroom. **This course code should be used to denote completion of the Graduation Pathways Employability Skills experience.**

- Recommended Grade: 9-12
- Required Prerequisites: None
- Recommended Prerequisites: Preparing for College & Careers
- Credits: 0 credits, the experience may stretch over multiple semesters & should not be marked as passing until the designated person responsible for approving the project-based learning experience validates the PBL work product.
- Qualifies as the employability skills requirement for all diplomas.

0590 Pilot Course
(PILOT)

Pilot Course is a course title that is to be used for reporting by schools that are piloting a new course, either for the Indiana Department of Education or with approval from the Indiana Department of

Education. Schools must apply to the Indiana Department of Education for a non-standard course waiver and provide or propose a course description, standards, course relates to student needs, and rationale describing post-secondary/higher education and business/industry need and support. Schools are to follow the pilot course framework and provide feedback on that framework to the Department. This course title should be used for non-Career and Technical Education (CTE) courses.

- Recommended Grade: Recommended Grade Level: See draft course framework
- Required Prerequisites: none
- Recommended Prerequisites: See draft course framework
- Credits: See draft course framework
- Counts as an elective for all diplomas

0550 Religion
(RELIGION)

Course content is to be determined locally to meet local needs.

- Recommended Grade: Recommended Grade Level: Determined locally
- Required Prerequisites: none
- Recommended Prerequisites: Determined locally
- Credits: Determined locally
- Counts as an elective for all diplomas

0509 Jobs for America's Graduates
(JAG)

Jobs for America’s Graduates (JAG) is a state-based, national non-profit organization dedicated to preventing dropouts among young people who are most at-risk. JAG's mission is to keep young people in school through graduation and provide work-based learning experiences that will lead to career advancement opportunities or to enroll in a postsecondary institution that leads to a rewarding career. JAG students receive adult mentoring while in school and one year of follow-up counseling after graduation. The JAG program is funded through grants provided by the Indiana Department of Workforce Development.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credits per semester, 4 credits maximum
- Counts as an elective for all diplomas

Physical Education Courses

Physical Education I, Physical Education II, and Elective Physical Education are based on Indiana's Academic Standards for Physical Education. These courses identify what a student should know and be able to do as a result of a quality physical education program. Physical literacy is defined by SHAPE America as "the ability to move with competence and confidence in a wide variety of physical activities in multiple environments that benefit the healthy development of the whole person." The goal of a physically educated student and physically literate student is to maintain appropriate levels of cardio-respiratory endurance, muscular strength and endurance, flexibility, and body composition, knowledge skills, and confidence necessary for a lifetime of healthful physical activity. Through a variety of instructional strategies, students practice skills that demonstrate physical literacy. This includes demonstrating competency in a variety of motor skills and movement patterns; applying knowledge of concepts, principles, strategies and tactics related to movement and performance; demonstrating the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness; exhibiting responsible personal and social behavior that respects self and others; and recognizing the value of physical activity for health, enjoyment, challenge, self-expression and/or social interaction. Physical Education courses are designated as laboratory courses and, as such, 25 percent of course time must be spent in activity.

Adapted physical education must be offered, as needed, in the least-restrictive environment and must be based upon an individual assessment.

Schools have the option to develop a policy by following the guidelines outlined in IDOE's 2013 memorandum "Flexibility in Physical Education Credit."

3560 Elective Physical Education (L)
(ELECT PE)

Elective Physical Education, a course based on selected standards from Indiana's Academic Standards for Physical Education, identifies what a student should know and be able to do as a result of a quality physical education program. The goal of a physically educated student is to maintain appropriate levels of cardio-respiratory endurance, muscular strength and endurance, flexibility, and body composition necessary for a healthy and productive life. Elective Physical Education promotes lifetime sport and recreational activities and provides an opportunity for an in-depth study in one or more specific areas. A minimum of two of the following activities should be included: team sports; dual sports activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance. This course includes the study of physical development concepts and principles of sport and exercise as well as opportunities to develop or refine skills and attitudes that promote lifelong fitness. Students have the opportunity to design and develop an appropriate personal fitness program that enables them to achieve a desired level of fitness. Ongoing assessment includes both written and performance-based skill evaluation. Individual assessments may be modified for individuals with disabilities, in addition to those with IEPs and 504 plans (e.g., chronic illnesses, temporary injuries, obesity, etc.). See 511 IAC 7-27-9, 7-27-11.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Physical Education I and II
- Credits: 1 credit per semester, maximum of 8 credits
- Counts as an elective requirement for all diplomas
- The nature of this course allows for successive semesters of instruction provided defined proficiencies and content standards are utilized.

- Classes are co-educational unless the activity involves bodily contact or groupings based on an objective standard of individual performance developed and applied without regard to gender.

3560 Applied Elective Physical Education (L)
(ELECT PE)

Applied Elective Physical Education, a course based on selected standards from Indiana's Academic Standards for Physical Education, identifies what a student should know and be able to do as a result of a quality physical education program. The goal of a physically educated student is to maintain appropriate levels of cardio- respiratory endurance, muscular strength and endurance, flexibility, and body composition necessary for a healthy and productive life. Elective Physical Education promotes lifetime sport and recreational activities and provides an opportunity for an in-depth study in one or more specific areas. This course includes the study of physical development concepts and principles of sport and exercise as well as opportunities to develop or refine skills and attitudes that promote lifelong fitness. With staff support, students have the opportunity to design and develop an appropriate personal fitness program that enables them to achieve a desired level of fitness and includes self-monitoring. Ongoing assessment may include individual progress and/or performance-based skill evaluation.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 8 units maximum
- Counts as an elective for Physical Education for the Certificate of Completion

3542 Physical Education I (L)
(PHYS ED II)

Physical Education I focuses on instructional strategies through a planned, sequential, and comprehensive physical education curriculum which provides students with opportunities to actively participate in at least four of the following: team sports; dual sport activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance, all of which are within the framework of the skills, knowledge, and confidence needed by the student for a lifetime of healthful physical activity and fitness. Ongoing assessment includes both written and performance-based skill evaluation. Individual assessments may be modified for individuals with disabilities, in addition to those with IEPs and 504 plans (e.g., chronic illnesses, temporary injuries, obesity, etc.). See 511 IAC 7-27-9, 7-27-11.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Grade 8 Physical Education
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester, 1 credit maximum
- Fulfills part of the Physical Education requirement for all diplomas
- Classes are co-educational unless the activity involves bodily contact or groupings based on an objective standard of individual performance developed and applied without regard to gender.
- Adapted physical education must be offered, as needed, in the least restricted environment and must be based upon an individual assessment.
- As a designated laboratory course, 25% of course time must be spent in activity.

3542 Applied Physical Education I (L)

(PHYS ED II)

Applied Physical Education I focuses on instructional strategies through a planned, sequential, and comprehensive physical education curriculum which provides students with opportunities to actively participate in at least four of the following: team sports; dual sport activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance, all which are within the framework of lifetime physical activities and fitness. Ongoing assessment includes individual progress and performance-based skill evaluation.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 2 units maximum
- Counts as a Physical Education requirement for the Certificate of Completion

3544 Physical Education II (L)
(PHYS ED II)

Physical Education II focuses on instructional strategies through a planned, sequential, and comprehensive physical education curriculum which provides students with opportunities to actively participate in four of the following areas that were not included in Physical Education I: team sports; dual sport activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance, all of which are within the framework of the skills, knowledge and confidence needed by the student for a lifetime of healthful physical activity and fitness. Ongoing assessment includes both written and performance-based skill evaluation. Individual assessments may be modified for individuals with disabilities, in addition to those with IEPs and 504 plans (e.g., chronic illnesses, temporary injuries, obesity, etc.). See 511 IAC 7-27-9, 7-27-11.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Physical Education I
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester, 1 credit maximum
- Fulfills part of the Physical Education requirement for all diplomas
- Classes are co-educational unless the activity involves bodily contact or groupings based on an objective standard of individual performance developed and applied without regard to gender.
- Adapted physical education must be offered, as needed, in the least-restricted environment and must be based upon an individual assessment.
- As a designated laboratory course, 25% of course time must be spent in activity.

3544 Applied Physical Education II (L)
(PHYS ED II)

Applied Physical Education II focuses on instructional strategies through a planned, sequential, and comprehensive physical education curriculum which provides students with opportunities to actively participate in four of the following areas that were not covered in Physical Education I: team sports; dual sport activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance, all which are within the framework of lifetime physical activities and fitness. Ongoing assessment includes individual progress and performance-based skill evaluation.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none

- Recommended Prerequisites: none
- Applied Units: 2 units maximum
- Counts as a Physical Education requirement for the Certificate of Completion.

Science Courses

In April 2019 Pursuant to HEA 1426, the State Board adopted revised rules regarding science requirements for the Core 40 curriculum model. In order to earn a Core 40 diploma designation, students are still required to have (1) two credits of Biology I, (2) two credits of Chemistry I or Physics I or Integrated Chemistry-Physics, and (3) two credits of any other Core 40 science course. Acting on recommendations from a committee of content area experts representing both secondary and postsecondary institutions, the Indiana State Board of Education approved expanding the list of courses that students may take to satisfy the science requirement. In addition to the approved courses listed in this section, courses listed on the "Core 40 Science Requirement Recommendations" can be used to satisfy the **third** science requirement. Indiana Academic Standards for science are currently under review and will be updated for full implementation in the 2023-24 school year.

3092 Advanced Science, Special Topics (L)
(ADV SCI ST)

Advanced Science, Special Topics is any science course that is grounded in extended laboratory, field, and literature investigations in one or more specialized science disciplines, such as anatomy/physiology, astronomy, biochemistry, botany, ecology, electromagnetism, genetics, geology, nuclear physics, organic chemistry, etc. Students enrolled in this course engage in an in-depth study of the application of science concepts, principles, and unifying themes that are unique to that particular science discipline and that address specific technological, environmental or health-related issues. Under the direction of a science advisor, students enrolled in this course will complete an end-of-course project and presentation, such as a scientific research paper or science fair project, integrating knowledge, skills, and concepts from the student's course of study. Individual projects are preferred, but group projects may be appropriate if each student in the group has specific and unique responsibilities.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester, may be offered for successive semesters
- Fulfills a science requirement for all diplomas

5276 Anatomy and Physiology
(A & P)

Anatomy & Physiology is a course in which students investigate concepts related to Health Science, with emphasis on interdependence of systems and contributions of each system to the maintenance of a healthy body. It introduces students to the cell, which is the basic structural and functional unit of all organisms, and covers tissues, integumentary, skeletal, muscular, and nervous systems as an integrated unit. Through instruction, including laboratory activities, students apply concepts associated with Human Anatomy & Physiology. Students will understand the structure, organization and function of the various components of the healthy body in order to apply this knowledge in all health related fields.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Biology
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Fulfills a science course requirement for all diplomas

3024 Biology I (L)
(BIO I)

Biology I incorporates high school Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts to help students gain a three dimensional understanding of Biology topics. Disciplinary Core Ideas for this course include From Molecules to Organisms, Ecosystems, Heredity and Biological Evolution. Instruction focuses on the observation of phenomena to develop an understanding of how scientific knowledge is acquired.

- Recommended Grade: 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Fulfills the Biology requirement for all diplomas

3024 Applied Biology I (L)
(BIO I)

Biology I incorporates high school Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts to help students gain a three dimensional understanding of Biology topics. Disciplinary Core Ideas for this course include From Molecules to Organisms, Ecosystems, Heredity and Biological Evolution. Instruction focuses on the observation of phenomena to develop an understanding of how scientific knowledge is acquired.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 4 units maximum
- Fulfills as a science requirement for the Certificate of Completion

3026 Biology II (L)
(BIO II)

Biology II is an advanced laboratory, field, and literature investigations-based course. Students enrolled in Biology II examine in greater depth the structures, functions, and processes of living organisms. Students also analyze and describe the relationship of Earth's living organisms to each other and to the environment in which they live. In this course, students refine their scientific inquiry skills as they collaboratively and independently apply their knowledge of the unifying themes of biology to biological questions and problems related to personal and community issues in the life sciences.

- Recommended Grade: 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Biology I
- Credits: 2 semester course, 1 credit per semester
- Counts as an Elective for all diplomas
- Fulfills a science course requirement for all diplomas

3064 Chemistry I (L)
(CHEM I)

Chemistry I incorporates high school Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts to help students gain a three dimensional understanding of Chemistry topics. Disciplinary Core Ideas for this course include Matter and its Interactions and Energy. Instruction focuses on the observation of phenomena to develop an understanding of how scientific knowledge is acquired.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Algebra II (can be taken concurrently)
- Credits: 2 semester course, 1 credit per semester
- Fulfills a science (physical) course requirement for all diplomas
- Qualifies as a quantitative reasoning course

3066 Chemistry II (L)
(CHEM II)

Chemistry II is an extended laboratory, field, and literature investigations-based course. Students enrolled in Chemistry II examine the chemical reactions of matter in living and nonliving materials. Based on the unifying themes of chemistry and the application of physical and mathematical models of the interactions of matter, students use the methods of scientific inquiry to answer chemical questions and solve problems concerning personal needs and community issues related to chemistry.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Chemistry I & Algebra II
- Credits: 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills a science course requirement for all diplomas
- Qualifies as a quantitative reasoning course

3044 Earth and Space Science I (L)
(EAS SCI I)

Earth and Space Science incorporates high school Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts to help students gain a three dimensional understanding of Earth and Space Science topics. Disciplinary Core Ideas for this course include Earth's Place in the Universe, Earth's Systems, and Human Interaction with Earth's Systems. Instruction focuses on the observation of phenomena to develop an understanding of how scientific knowledge is acquired.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills a science course requirement for all diplomas

3044 Applied Earth and Space Science I (L)
(EAS SCI I)

Applied Earth and Space Science incorporates high school Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts to help students gain a three dimensional understanding of Earth and Space Science topics. Disciplinary Core Ideas for this course include Earth's Place in the Universe, Earth's Systems, and Human Interaction with Earth's Systems. Instruction focuses on the observation of phenomena to develop an understanding of how scientific knowledge is acquired.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 4 units maximum
- Counts as an elective or science requirement for the Certificate of Completion

3046 Earth and Space Science II (L)
(EAS SCI II)

Earth and Space Science II is an extended laboratory, field, and literature investigations-based course whereby students apply concepts from other scientific disciplines in synthesizing theoretical models of earth and its interactions with the macrocosm. Students enrolled in this course examine various earth and space science phenomena, such as the structure, composition, and interconnected systems of earth and the various processes that shape it, as well as earth’s lithosphere, atmosphere, hydrosphere, and celestial environment. Students analyze and apply the unifying themes of earth and space science as part of scientific inquiry aimed at investigating earth and space science problems related to personal needs and community issues.

- Recommended Grade: 10
- Required Prerequisites: none
- Recommended Prerequisites: Earth and Space Science I
- Credits: 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills a science course requirement for all diplomas

3010 Environmental Science (L)
(ENVSCI)

Environmental Science is an interdisciplinary course that integrates biology, earth science, chemistry, and other disciplines. Students enrolled in this course integrate Science and Engineering Practices and Crosscutting Concepts to conduct in-depth scientific studies of environmental systems, flow of matter and energy, natural disasters, environmental policies, biodiversity, population, pollution, and natural and anthropogenic resource cycles. Students formulate, design, and carry out laboratory and field investigations as an essential course component. Students completing Environmental Science acquire the essential tools for understanding the complexities of national and global environmental systems.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Two credits science coursework
- Credits: 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills a science (life) course requirement for all diplomas

3108 Integrated Chemistry-Physics (L)
(ICP)

Integrated Chemistry and Physics incorporates high school Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts to help students gain a three-dimensional understanding of Chemistry and Physics topics. Disciplinary Core Ideas for this course include Matter and its Interactions, Forces, Energy, and Waves and their Applications in Technologies for Information Transfer. Instruction focuses on the observation of phenomena to develop an understanding of how scientific knowledge is acquired.

- Recommended Grade: 9
- Required Prerequisites: none
- Recommended Prerequisites: Algebra I (may be taken concurrently with this course)
- Credits: 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills a science (physical) course requirement for all diplomas
- Qualifies as a Quantitative Reasoning course

3030 Life Science (L)
(LIFE SCI)

Life Science is an introduction to biology course. Students develop problem-solving skills and strategies while performing laboratory and field investigations of fundamental biological concepts and principles. Students explore the functions and processes of cells within all living organisms, the sources and patterns of genetic inheritance and variation leading to biodiversity, and the relationships of living organisms to each other and to the environment as a whole.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as a science course for the General Diploma only
- Counts as an Elective for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

3030 Applied Life Science (L)
(LIFE SCI)

Applied Life Science is an introduction to biology course. Students develop problem-solving skills and strategies while performing laboratory and field investigations of fundamental biological concepts and principles. Students explore the functions and processes of cells within all living organisms, general concepts of genetics, and the relationships of living organisms to each other and to the environment as a whole.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 2 units maximum
- Counts as an elective or science requirement for the Certificate of Completion

3102 Physical Science (L)
(PHY SCI)

Physical Science is a course in which students develop problem solving skills and strategies while performing laboratory and field investigations of fundamental chemical, physical, and related earth and space science concepts and principles that are related to students' interests and that address

everyday problems. Students enrolled in Physical Science will explore the structure and properties of matter, the nature of energy and its role in chemical reactions and the physical and chemical laws that govern Earth's interconnected systems and forces of nature.

- Recommended Grade: 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts toward the physical science requirement for the General Diploma
- Fulfills a science requirement for all diplomas

3102 Applied Physical Science (L)
(PHY SCI)

Applied Physical Science is a course in which students develop problem solving skills and strategies while performing laboratory and field investigations of fundamental chemical, physical, and related earth and space science concepts and principles that are related to students 'interests and that address everyday problems.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 2 units maximum
- Counts as an elective or science requirement for the Certificate of Completion

3084 Physics I (L)
(PHYS I)

Physics I incorporates high school Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts to help students gain a three dimensional understanding of Physics topics. Disciplinary Core Ideas for this course include Forces and Interactions, Energy, Wave Properties, and Electromagnetic Radiation. Instruction focuses on the observation of phenomena to develop an understanding of how scientific knowledge is acquired.

- Recommended Grade: 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Algebra I or Algebra II
- Credits: 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills a science (physical) course requirement for all diplomas
- Qualifies as a Quantitative Reasoning course

3086 Physics II (L)
(PHYS II)

Physics II is an extended laboratory, field, and literature investigations-based course. Students enrolled in Physics II investigate physical phenomena and the theoretical models that are useful in understanding the interacting systems of the macro- and microcosms. Students extensively explore the unifying themes of physics, including such topics and applications of physics as: energy and momentum in two dimensions; temperature and thermal energy transfer; fluids; electricity; simple and complex circuits; magnetism; electromagnetic induction; geometric optics; particle and wave nature of light; modern physics. Use of laboratory activities aimed at investigating physics questions and problems concerning personal needs and community issues related to physics are embedded within

the course.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Physics I, Pre-calculus/Trigonometry (can be taken concurrently)
- Credits: 2 semester course, 1 credit per semester
- Fulfills a science (physical) course requirement for all diplomas
- Qualifies as a Quantitative Reasoning course
- Counts as an elective for all diplomas

3008 Science Research, Independent Study (L)
(SCI RSRCH IS)

Science Research, Independent Study is a course that provides students with unique opportunities for independent, in-depth study of one or more specific scientific problems. Students develop a familiarity with the laboratory procedures used in a given educational, research, or industrial setting or a variety of such settings. Students enrolled in this course will complete a science fair project to be exhibited at a regional science fair and/or state science symposium, an end-of-course project, such as a scientific research paper, or some other suitable presentation of their findings.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Two credits in Core 40 science coursework (this course may be taken concurrently with a Core 40 science course)
- Credits: 2 semester course, 1 credit per semester
- Counts as a science course for all diplomas

3094 Science Tutorial
(SCI TUTOR)

Science Tutorial provides students with individualized instruction designed to support success in completing Core 40 science coursework for each year that they are enrolled in Core 40 science courses.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: This course must be taken concurrently with a Core 40 science course
- Credits: 1 semester course, 1 credit per semester, 8 credits maximum
- Counts as an elective for all diplomas

Social Studies Courses

1500 African Studies
(AFR STUDIES)

African Studies helps students understand and appreciate the diverse peoples, cultures, and economic systems of the African continent. This course examines: (1) the early kingdoms and cities of Africa, (2) early trade routes with Europe and the East, (3) the influence of African culture in the Americas, (4) European colonization of Africa, (5) African influences in the United States, (6) the establishment of independent nations in Africa, and (7) contemporary traditions, literature, art and other aspects of culture.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as an elective for all diplomas

1502 Anthropology
(ANTHRO)

Anthropology gives students perspectives concerning patterns of culture among people. The course introduces the anthropologist's processes of observing and analyzing human behavior. Topics studied include (1) theories and principles of cultural formation, growth, function, and change; (2) the relationship of culture to environment; and (3) the relationship between cultural background and behavior.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as an elective for all diplomas

1504 Applied Economics
(APP ECON)

Applied Economics investigates the specific economic effect of market forces and government policies on individuals and major institutional groups, such as business and labor, in the economy. Special attention is given to economic concepts and principles used by consumers, producers, and voters. Learning experiences, such as projects, field trips, and computer applications, are strongly encouraged as ways to demonstrate practical applications of economic concepts.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as a Social Studies credit for the General Diploma
- Counts as an elective for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

1504 (Applied) Applied Economics
(APP ECON)

(Applied) Applied Economics investigates the specific economic effect of market forces and government policies on individuals and major institutional groups, such as business and labor, in the economy. Special attention is given to economic concepts and principles used by consumers, producers, and voters. Learning experiences, such as projects, field trips, and computer applications, are strongly encouraged as ways to demonstrate practical applications of economic concepts.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied: 2 units maximum
- Counts as an elective, Employability or Social Studies Requirement for the Certificate of Completion

1506 Asian Studies (ASN STUDIES)

Asian Studies provides insight into the diverse peoples and cultures of Asia. It offers opportunities to study aspects of culture in one or more Asian countries. Attention is given to religions, traditions, art, literature, and the development of social, economic, and political institutions. Examination of contemporary Asian societies and the interaction of Asia with the United States are components of this course.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as an elective for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- Fulfills social studies requirement for General Diploma.

1508 Citizenship and Civics (CIVICS)

Citizenship and Civics is an overview of citizenship roles and responsibilities designed to help students become independent thinkers and conscientious citizens. This course deals with political trends and behavior which citizens consider to be relevant to the most pressing issues of the day. The course provides students with experiences that will develop attitudes of citizenship within a democratic society. Topics include: (1) the policymaking process, (2) public participation in policymaking, (3) citizenship rights and responsibilities in a changing society, and (4) the relationship between modern society and government. Study of the local government should be a component of this course.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills social studies requirement for General Diploma.

1508 Applied Citizenship and Civics (CIVICS)

Applied Citizenship and Civics is an overview of citizenship roles and responsibilities designed to help students become independent thinkers and conscientious citizens. This course deals with political

trends and behavior which citizens consider to be relevant to the most pressing issues of the day. The course provides students with experiences that will develop attitudes of citizenship within a democratic society. Topics include: (1) the policymaking process, (2) public participation in policymaking, (3) citizenship rights and responsibilities in a changing society, and (4) the relationship between modern society and government. Study of the local government should be a component of this course.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 2 units maximum
- Counts as an elective, Employability or Social Studies Requirement for the Certificate of Completion

1512 Current Problems, Issues, and Events (CPIE)

Current Problems, Issues, and Events gives students the opportunity to apply investigative and inquiry techniques to the study of significant problems or issues. Students develop competence in (1) recognizing cause and effect relationships, (2) recognizing fallacies in reasoning and propaganda devices, (3) synthesizing knowledge into useful patterns, (4) stating and testing hypotheses, and (5) generalizing based on evidence. Problems or issues selected will have contemporary historical significance and will be studied from the viewpoint of the social science disciplines. Community service programs and internships within the community may be included.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester. Course may be repeated for credit if the content of the course changes.
- Counts as an elective for all diplomas
- Fulfills social studies requirement for General Diploma.

1512 Applied Current Problem, Issues, and Events (CPIE)

Applied Current Problems, Issues, and Events gives students the opportunity to apply investigative and inquiry techniques to the study of significant problems or issues. Students develop competence in (1) recognizing cause and effect relationships, (2) recognizing fallacies in reasoning and propaganda devices, (3) synthesizing knowledge into useful patterns, (4) stating and testing hypotheses, and (5) generalizing based on evidence. Problems or issues selected will have contemporary historical significance and will be studied from the viewpoint of the social science disciplines. Community service programs and internships within the community may be included.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites:
- Applied Units: 2 units maximum
- Counts as an elective, Employability or Social Studies Requirement for the Certificate of Completion

1514 Economics
(ECON)

Economics examines the allocation of resources and their uses for satisfying human needs and wants. The course analyzes economic reasoning and behaviors of consumers, producers, savers, investors, workers, voters, institutions, governments, and societies in making decisions. Students explain that because resources are limited, people must make choices and understand the role that supply, demand, prices, and profits play in a market economy. Key elements of the course include the study of scarcity and economic reasoning; supply and demand; market structures; the role of government; national economic performance; the role of financial institutions; economic stabilization; and trade.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills the Economics requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas
- Fulfills a Social Studies requirement for the General Diploma only
- Qualifies as a quantitative reasoning course

1514 Applied Economics
(ECON)

Applied Economics examines the allocation of resources and their uses for satisfying human needs and wants. The course identifies economic behaviors of consumers, producers, savers, investors, workers, voters, institutions, governments, and societies in making decisions.

Students explain that because resources are limited, people must make choices and understand the role that supply, demand, prices, and profits play in a market economy. Key elements of the course include the study of scarcity and economic reasoning; supply and demand; market structures; the role of government; national economic performance; the role of financial institutions; economic stabilization; and trade. Students may be offered opportunities to better understand and apply course content through a variety of instructional strategies including project- and community-based instruction and real world experiences.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites:
- Applied Units: 2 units maximum
- Counts as a Social Studies Requirement or elective for the Certificate of Completion

1516 Ethnic Studies
(ETH STUDIES)

Ethnic Studies provides opportunities to broaden students' perspectives concerning lifestyles and cultural patterns of ethnic groups in the United States. This course will either focus on a particular ethnic group or groups, or use a comparative approach to the study of patterns of cultural development, immigration, and assimilation, as well as the contributions of specific ethnic or cultural groups. The course may also include analysis of the political impact of ethnic diversity in the United States.

- Recommended Grade: none

- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit
- Counts as an elective for all diplomas
- Must be offered at least once per school year

1570 Geography and History of the World (GEO-HST WLD)

Geography and History of the World is designed to enable students to use geographical tools, skills and historical concepts to deepen their understanding of major global themes including the origin and spread of world religions; exploration; conquest, and imperialism; urbanization; and innovations and revolutions. Geographical and historical skills include forming research questions, acquiring information by investigating a variety of primary and secondary sources, organizing information by creating graphic representations, analyzing information to determine and explain patterns and trends, planning for the future, and documenting and presenting findings orally or in writing. The historical geography concepts used to explore global themes include change over time, origin, diffusion, physical systems, cultural landscapes, and spatial distribution/patterns and interaction/relationships. Students use the knowledge, tools, and skills obtained from this course in order to analyze, evaluate, and make predictions about major global developments. This course is designed to nurture perceptive and responsible citizenship, to encourage and support the development of critical thinking skills and lifelong learning, and to help prepare Indiana students for the 21st Century.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a Social Studies requirement for the General Diploma
- Counts as an elective for all diplomas
- Fulfills the Geography History of the World/World History and Civilization graduation requirement for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

1570 Applied Geography and History of the World (GEO-HST WLD)

Applied Geography and History of the World is designed to enable students to use geographical tools, skills and historical concepts to deepen their understanding of major global themes including the origin and spread of world religions; exploration; conquest, and imperialism; urbanization; and innovations and revolutions. Geographical and historical skills include forming research questions, acquiring information by investigating a variety of primary and secondary sources, organizing information by creating graphic representations, analyzing information to determine and explain patterns and trends, planning for the future, and documenting and presenting findings orally or in writing. The historical geography concepts used to explore global themes include change over time, origin, diffusion, physical systems, cultural landscapes, and spatial distribution/patterns and interaction/relationships. Students use the knowledge, tools, and skills obtained from this course in order to analyze, evaluate, and make predictions about major global developments. This course is designed to nurture perceptive and responsible citizenship, to encourage and support the development of critical thinking skills and lifelong learning, and to help prepare Indiana students for the 21st Century.

- Recommended Grade: none
- Required Prerequisites: none

- Recommended Prerequisites: none
- Applied Units: 4 units maximum
- Counts as a Social Studies Requirement or elective for the Certificate of Completion

4558 Global Economics
(GLOB ECON)

Global Economics is a business course that provides students with an understanding of their role as consumers and producers in domestic and global economies. This course enables students to understand how the economic system operates while comprehending their role in that system. Students deal with public policy, international economics, microeconomics, and macroeconomics in comparing economic systems and using selected economic measures.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills the Economics requirement for all diplomas
- Qualifies as a quantitative reasoning course

1518 Indiana Studies
(IN STUDIES)

Indiana Studies is an integrated course that compares and contrasts state and national developments in the areas of politics, economics, history, and culture. The course uses Indiana history as a basis for understanding current policies, practices, and state legislative procedures. It also includes the study of state and national constitutions from a historical perspective and as a current foundation of government. Examination of individual leaders and their roles in a democratic society will be included, and students will examine the participation of citizens in the political process. Selections from Indiana arts and literature may also be analyzed for insights into historical events and cultural expressions.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills course requirement for General Diploma
- Must be offered at least once per school year

1518 Applied Indiana Studies
(IN STUDIES)

Applied Indiana Studies is an integrated course that compares and contrasts state and national developments in the areas of politics, economics, history, and culture. The course uses Indianahistory as a basis for understanding current policies, practices, and state legislative procedures. It also includes the study of state and national constitutions from a historical perspective and as a current foundation of government. Examination of individual leaders and their roles in a democratic society will be included and students will examine the participation of citizens in the political process. Selections from Indiana arts and literature may also be analyzed for insights into historical events and cultural expressions.

- Recommended Grade: none
- Required Prerequisites: none

- Recommended Prerequisites: none
- Applied Units: 2 units maximum
- Counts as a Social Studies Requirement or elective for the Certificate of Completion
- Must be offered at least once per school year

1520 International Relations
(INTL RELAT)

International Relations provides a survey of the formal relations among sovereign states in the international system, emphasizing the operation of diplomacy. The procedures for settlement of disputes and various methods of international conflict resolution are included. This course examines power, interdependence, global development, and international organizations.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills course requirement for General Diploma

1522 Introduction to Social Science
(INTRO SS)

Introduction to Social Science develops an understanding of the nature of the social sciences and presents reasons for studying them. The course involves consideration of the social sciences such as: (1) the study of humanity; (2) the reasons for separate fields or disciplines; (3) the objectives, materials, and methods of each discipline; and (4) the difficulties encountered by social scientists in applying scientific method to the study of human life. Content may include group and individual behavior, education, social systems, and the role of social studies.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills course requirement for General Diploma

1522 Applied Introduction to Social Science
(INTRO SS)

Applied Introduction to Social Science develops an understanding of the nature of the social sciences and presents reasons for studying them. The course involves consideration of the social sciences such as: (1) the study of humanity; (2) the reasons for separate fields or disciplines; (3) the objectives, materials, and methods of each discipline; and (4) the difficulties encountered by social scientists in applying scientific method to the study of human life. Content may include group and individual behavior, education, social systems, and the role of the social studies.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied units: 2 units maximum
- Counts as social studies requirement or elective for the Certificate of Completion

1524 Latin American Studies
(LAT STUDIES)

Latin American Studies provides an understanding of and appreciation for the diverse peoples, cultures, and economic systems of Mexico, Central and South America, and the Caribbean nations. Content includes geographical and historical factors that have influenced contemporary situations. Topics of study include: (1) the development of pre-Columbian civilizations, (2) European colonial systems and resulting institutions, (3) the development of independent nations and governments, and (4) current issues.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills course requirement for General Diploma

1526 Law Education
(LAW ED)

Law Education provides an understanding of the American legal system and its basis in the United States Constitution. The course is designed to promote an understanding of society and its system of laws by indicating how citizens may effectively function within the law. Ways of dealing with interpersonal conflict in order to secure constructive change are included, along with the development of critical thinking and problem-solving skills. Case studies, field trips, simulations, and mock trials will be used in this course whenever feasible.

- Recommended Grade: 11,12
- Required Prerequisites: none
- Recommended Prerequisites: United States Government or teacher recommendation
- Credits: 1 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills course requirement for General Diploma

1528 Modern World Civilization
(MOD WLD CIV)

Modern World Civilization provides students an in-depth look at the twentieth and twenty-first century world. It is a study of different cultures as they exist in the world today, including comparative analysis of the various types of government, economic, and social systems. International relationships are examined partly from the viewpoint of national interests, including the successes and failures of diplomacy.

- Recommended Grade: 11.12
- Required Prerequisites: none
- Recommended Prerequisites: World History and Civilization
- Credits: 1 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills course requirement for General Diploma

1528 Applied Modern World Civilization
(MOD WLD CIV)

Applied Modern World Civilization provides students a look at the twentieth and twenty-first century

world. It is a study of different cultures as they exist in the world today, including comparative analysis of the various types of government, economic, and social systems. International relationships are examined partly from the viewpoint of national interests, including the successes and failures of diplomacy.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied units: 2 units maximum
- Counts as a social studies requirement or elective for the Certificate of Completion

1530 Political Science (POLI SCI)

Political Science provides for a study of the processes and goals of politics; processes of government; methods by which decisions are made; and the basis of decision making. The course goes beyond the study of governmental structure and functions to include an analysis of topics such as: (1) the nature of the American party system, (2) interest groups, (3) public opinion, (4) laws which affect students, (5) reasons laws are changed, (6) due process of law, (7) legal rights, and (8) legal responsibilities. Comparative studies of governmental systems in nations other than the United States may also be included.

- Recommended Grade: 11,12
- Required Prerequisites: none
- Recommended Prerequisites: United States Government or teacher recommendation
- Credits: 1 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills course requirement for General Diploma

1532 Psychology (PSYCH)

Psychology is the scientific study of mental processes and behavior. The course is divided into eight content areas: History and Scientific Method, Biological Basis for Behavior, Development, Cognition, Personality and Assessment, Abnormal Psychology, Socio-Cultural Dimensions of Behavior, and Psychological Thinking. History and Scientific Method explores the history of psychology, the research methods used, and the ethical considerations that must be utilized. Biological Basis for Behavior focuses on the way the brain and nervous system function, including sensation, perception, motivation and emotion. Development analyzes the changes through one’s life including the physical, cognitive, emotional, social and moral development. Cognition focuses on learning, memory, information processing, and language development. Personality and Assessment explains the approaches used to explain one’s personality and the assessment tools used. Abnormal Psychology explores psychological disorders and the various treatments used for them. Socio-Cultural Dimensions of Behavior covers topics such as conformity, obedience, perceptions, attitudes and influence of the group on the individual. Psychological Thinking explores how to think like a psychologist and expand critical thinking skills needed in the day-to-day life of a psychologist.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 to 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas

- Fulfills course requirement for General Diploma

1534 Sociology
(SOCIOLOGY)

Sociology allows students to study human social behavior from a group perspective. The sociological perspective is a method of studying recurring patterns in people's attitudes and actions and how these patterns vary across time, cultures, and in social settings and groups. Students describe the development of sociology as a social science and identify methods of research. Through research methods such as scientific inquiry students examine society, group behavior, and social structures. The influence of culture on group behavior is addressed through institutions such as the family, religion, education, economics, community organizations, government, and political and social groups. The impact of social groups and institutions on group and individual behavior and the changing nature of society will be examined. Influences on group behavior and social problems are included in the course. Students also analyze the role of individuals in the community and social problems in today's world.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills course requirement for General Diploma

1536 State and Local Government
(ST/LOC GOVT)

State and Local Government is the study of the function and organization of state, county, city, town, and township government units. The primary focus is on the major factors and issues in the state's political development. This course also traces the role and influence of political and social institutions on a state's political development. The implications of this development for governmental units should be discussed relative to current political and governmental situations. Field trips, observations, and interviews with state and local leaders should be encouraged whenever possible.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills course requirement for General Diploma

1536 Applied State and Local Government
(ST/LOC GOVT)

Applied State and Local Government is the study of the function and organization of state, county, city, town, and township government units. This course also traces the role and influence of political and social institutions on a state's political development. The implications of this development for governmental units should be discussed relative to current political and governmental situations. Field trips, observations, and interviews with state and local leaders should be encouraged whenever possible and content may also focus on school or social communities.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none

- Applied units: 2 units maximum
- Counts as a social studies requirement or elective for the Certificate of Completion

1538 Topics in History
(TOP HIST)

Topics in History provides students the opportunity to study specific historical eras, events, or concepts. Development of historical research skills using primary and secondary sources is emphasized. The course focuses on one or more topics or themes related to United States or world history. Examples of topics might include: (1) twentieth- century conflict, (2) the American West, (3) the history of the United States Constitution, and (4) democracy in history.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: United States History or World History and Civilization
- Credits: 1 semester course, 1 credit per semester. This course may be repeated if the material in the course is different from one semester to the next. Topics in History can address different topics in World History or U.S. History.
- Counts as an elective for all diplomas
- Fulfills course requirement for General Diploma

1538 Applied Topics in History
(TOP HIST)

Applied Topics in History provides students the opportunity to study specific historical eras, events, or concepts. Application of knowledge and development of historical research skills using primary and secondary sources is included. The course focuses on one or more topics or themes related to United States or world history. Examples of topics might include: (1) twentieth- century conflict, (2) the American West, (3) the history of the United States Constitution, and (4) democracy in history.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied units: 2 units maximum
- Counts as a social studies requirement or elective for the Certificate of Completion

1550 Topics in Social Science
(TOPICS SS)

Topics in Social Science provides students with an opportunity for in-depth study of a specific topic, theme, or concept in one of the social science disciplines such as anthropology, archaeology, economics, geography, political science, psychology, or sociology. It is also possible to focus the course on more than one discipline. A subtitle should be included to give a clear idea of the course content. For example, a course focusing on a specific in political science might be entitled, “Topics in Social Science: Comparative Government.” Courses taught under this title should emphasize scientific methods of inquiry and help students develop effective research and thinking skills.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills course requirement for General Diploma

1550 Applied Topics in Social Science (TOPICS SS)

Applied Topics in Social Science provides students with an opportunity for in-depth study of a specific topic, theme, or concept in one of the social science disciplines such as anthropology, archaeology, economics, geography, political science, psychology, or sociology. It is also possible to focus the course on more than one discipline. Courses taught under this title should emphasize application of scientific methods of inquiry and help students develop effective research and thinking skills.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied units: 2 units maximum
- Counts as a social studies requirement or elective for the Certificate of Completion

1540 United States Government (US GOVT)

The United States Government provides a framework for understanding the purposes, principles, and practices of constitutional representative democracy in the United States. Responsible and effective participation of citizens is stressed. Students understand the nature of citizenship, politics, and governments and understand the rights and responsibilities of citizens and how these are part of local, state, and national government. Students examine how the United States Constitution protects rights and provides the structure and functions of various levels of government. Analysis of how the United States interacts with other nations and the government's role in world affairs is included in this course. Using primary and secondary resources, students will articulate, evaluate, and defend positions on political issues. As a result, they will be able to explain the role of individuals and groups in government, politics, and civic activities and the need for civic and political engagement of citizens in the United States.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
  Credits: 1 semester course, 1 credit per semester
- Fulfills Government requirement for all diplomas
- Students are required to take the naturalization test for citizenship per SEA 132 (New 2019- 2020).
- SEA 398 (Spring 2020) states that schools will be required to issue the naturalization test, report results, and post test data results starting in November 2022.

1540 Applied United States Government (US GOVT)

Applied United States Government provides a framework for understanding the purposes, principles, and practices of constitutional representative democracy in the United States. Responsible and effective participation of citizens is stressed. Students understand the nature of citizenship, politics, and governments; the rights and responsibilities of citizens; and how these are part of local, state, and national government. Students examine how the United States Constitution protects rights and provides the structure and functions of various levels of government. How the United States interacts with other nations and the government's role in world affairs will be included. Using primary and secondary resources, students will articulate, evaluate, and defend positions on political issues. As a result, they will recognize their own impact, the role of individuals and groups in government, politics,

and civic activities and the need for civic and political engagement of citizens in the United States.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied units: 2 units maximum
- Counts as a social studies requirement or elective for the Certificate of Completion

1542 United States History
(US HIST)

United States History is a two-semester course that builds upon concepts developed in previous studies of U.S. History and emphasizes national development from the late nineteenth century into the twenty-first century. After reviewing fundamental themes in the early development of the nation, students are expected to identify and review significant events, persons, and movements in the early development of the nation. The course then gives major emphasis to the interaction of key events, people, and political, economic, social, and cultural influences in national developments from the late nineteenth century through the present as they relate to life in Indiana and the United States. Students are expected to trace and analyze chronological periods and examine the significant themes and concepts in U.S. History. Students develop historical thinking and research skills and use primary and secondary sources to explore topical issues and to understand the cause for changes in the nation over time.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Fulfills the US History requirement for all diplomas

1542 Applied United States History
(US HIST)

Applied United States History is a course that builds upon concepts of U.S. History and emphasizes national development from the late nineteenth century into the twenty-first century.After reviewing fundamental themes in the early development of the nation, students identify and review significant events, persons, and movements in the early development of the nation. The course then gives major emphasis to the interaction of key events, people, and political, economic, social, and cultural influences in national developments from the late nineteenth century through the present as they relate to life in Indiana and the United States. Students trace and analyze chronological periods and examine the significant themes and concepts in

U.S. History. Students develop historical thinking and research skills and use primary and secondary sources to explore topical issues and to understand specific topics or the cause for changes in the nation over time.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 4 units maximum
- Counts as a Social Studies Requirement or elective for the Certificate of Completion

1544 Urban Affairs
(URBN AFAIR)

Urban Affairs examines the history, organization, processes, and distinctive aspects of urban affairs. The rise of modern cities and an analysis of modern urban problems are dealt with in this course. The politics of governing urban areas, including the selection of political leaders and citizen participation in the decision-making process, is to be emphasized. Data collection and research skills may be taught in conjunction with the study of this course.

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills course requirement for General Diploma

1546 World Geography (WORLD GEO)

World Geography allows students to study the interaction of humans and their environments in a world setting. Students study global patterns of physical and cultural characteristics, including the Earth/sun relationship, atmospheric and oceanic circulation, landforms, climate, vegetation, population, economic and political structures, culture, cultural diffusion, and international and interregional connections. Using maps, geographic representations and technology such as geographic information systems (GIS), students will examine spatial relationships, the interaction of physical and cultural characteristics of designated places, areas, or regions. Students are expected to apply knowledge of geographic concepts and uses of geography to inquiry, research, and use participatory processes. The themes of location, characteristic of place, human/environmental interaction, movement between places, and regions anchor the course content. Emphasized are elements of the National Geography Standards: The World in Spatial Terms, Places and Regions, Physical Systems, Human Systems and Environment and Society.

- Recommended Grade: 11, 12
- Required Prerequisites: none
  Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills course requirement for General Diploma

1548 World History and Civilization (WLD HST/CVL)

World History and Civilization emphasizes events and developments in the past that greatly affected large numbers of people across broad areas and that significantly influenced peoples and places in subsequent eras. Key events related to people and places as well as transcultural interaction and exchanges are examined in this course. Students are expected to compare and contrast events and developments involving diverse peoples and civilizations in different regions of the world. They will examine examples of continuity and change, universality and particularity, and unity and diversity among various peoples and cultures from the past to the present. Students are also expected to practice and process skills of historical thinking and research and apply content knowledge to the practice of thinking and inquiry skills and processes. There will be continuous and pervasive interactions of processes and content, skills, and substance, in the teaching and learning of history.

- Recommended Grade: none
- Required Prerequisites: none

- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills the Geography History of the World/World History and Civilization graduation requirement for all diplomas

World Language Courses

2156 American Sign Language I (ASL I)

American Sign Language I is a course that introduces students to American Sign Language (ASL) and the deaf community. The course focuses on frequently used signs through a functional-notional approach, and discusses cultural features of the deaf community. Emphasis is placed on development of receptive and expressive language skills. Through this course, students are given the opportunity to develop visual acuity; follow brief verbal instructions; understand short statements, questions, and dialogues; develop short descriptions with guidance; begin to understand the current GLOSSING system used to write ASL; and examine other methods developed to write ASL, including Sign Writing. Students also learn to recognize the difference between the pathological and psychological definitions of deafness, recognize the widespread use of ASL throughout the United States, and develop an understanding of the relationship between languages and cultures as a whole.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2158 American Sign Language II (ASL II)

American Sign Language II is a course that continues the focus on frequently used signs through a functional-notional approach and the discussion of the cultural features of the deaf community. Emphasis is placed on further development of receptive and expressive communication skills in American Sign Language (ASL). Through this course, students are given the opportunity to watch and understand short stories, dialogues and poetry in ASL; continue to develop visual discrimination skills; begin to understand various dialects of ASL by interacting with ASL users within the deaf community; begin to use classifiers appropriately; continue the mastery of the current GLOSSING system used in texts to write ASL; and begin to write in GLOSS their own simple dialogues, poetry and translations. Students will also learn to examine some of the political issues associated with the deaf community, and will further develop an understanding of the relationship between languages and cultures as a whole.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: American Sign Language I
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas

- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2162 American Sign Language III
(ASL III)

American Sign Language III is a course that continues to focus on the students ’non-verbal communication skills at advanced levels of competency. American Sign Language is used exclusively in the class as students communicate using more complex structures of the language on a variety of topics, moving from concrete to more abstract concepts. This course provides opportunities for students to learn to express themselves in advanced situations, using more sophisticated vocabulary and structure; apply advanced grammatical features, such as descriptors, classifier use and various numbering systems; and develop the ability to discuss topics related to historical and contemporary events and issues within the deaf community.

Students will also build on narrative skills and learn to relay information they’ve read or heard through explanation of more complex ideas. This course further emphasizes the development of spontaneous language responsive behaviors through activities designed for this purpose.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: American Sign Language I and II
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2164 American Sign Language IV
(ASL IV)

American Sign Language IV is a course based on Indiana Academic Standards for World Languages. This course continues to focus on the students ’non-verbal communication skills at advanced levels of competency. American Sign Language is used exclusively in the class as students communicate using more complex structures of the language on a variety of topics, moving from concrete to more abstract concepts.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: American Sign Language I, II, and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2200 Arabic I
(ARABIC I)

Arabic I, a course based on Indiana’s Academic Standards for World Languages, introduces students to effective strategies for beginning Arabic language learning, and to various aspects of Arabic-speaking culture. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief guided conversations on familiar topics, and write short passages with guidance. This course also emphasizes the development of reading and listening comprehension skills, such as reading isolated words and phrases in a situational context and comprehending brief written or oral directions. Additionally, students will examine the practices, products and perspectives of Arabic-speaking culture; recognize basic routine practices of the target culture; and

recognize and use situation-appropriate non-verbal communication. This course further emphasizes making connections across content areas and the application of understanding Arabic language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
  Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2202 Arabic II
(ARABIC II)

Arabic II, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Arabic language learning by encouraging the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write cohesive passages with greater independence and using appropriate formats. This course also emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and comprehending longer written or oral directions. Students will address the presentational mode by presenting prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will describe the practices, products and perspectives of Arabic-speaking culture; report on basic family and social practices of the target culture; and describe contributions from the target culture. This course further emphasizes making connections across content areas and the application of understanding Arabic language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Arabic I
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2204 Arabic III
(ARABIC III)

Arabic III, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Arabic language learning by facilitating the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write cohesive information with greater detail. This course also emphasizes the continued development of reading and listening comprehension skills, such as using cognates, synonyms and antonyms to derive meaning from written and oral information, as well as comprehending detailed written or oral directions. Students will address the presentational mode by presenting student-created material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will continue to develop understanding of Arabic-speaking culture through recognition of the interrelations among the practices, products and perspectives of the target culture; discussion of significant events in the target culture; and investigation of elements that shape cultural identity in the target culture. This course further emphasizes making connections across content areas as well the application of understanding Arabic language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
  Required Prerequisites: Arabic I and II
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
  Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2206 Arabic IV
(ARABIC IV)

Arabic IV, a course based on Indiana's Academic Standards for World Languages, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral information are expanded through emphasis on the practice of speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop understanding of Arabic-speaking culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target culture and the student's own culture. This course further emphasizes making connections across content areas through the design of activities and materials that integrate the target language and culture with concepts and skills from other content areas. The use and influence of the Arabic language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native Arabic speakers.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Arabic I, II, III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2208 Arabic V
(ARABIC V)

Arabic V, a course based on Indiana's Academic Standards for World Languages, provides opportunities for students to interact and exchange information in culturally and socially authentic and/or simulated situations to demonstrate integration of language skills with understanding of Arabic-speaking cultures. This course emphasizes the use of appropriate formats, varied vocabulary and complex language structures within student communication, both oral and written, as well as the opportunity to produce and present creative material using the language. Additionally, students will continue to develop an understanding of Arabic- speaking culture through investigating the origin and impact of significant events and contributions unique to the target culture, comparing and contrasting elements that shape cultural identity in the target culture and the student's own culture, and explaining how the target language and culture have impacted other communities. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the exploration of community resources intended for native Arabic speakers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Arabic I, II, III, IV
- Recommended Prerequisites: none

- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2210 Arabic VI
(ARABIC VI)

Arabic VI, a course based on Indiana's Academic Standards for World Languages, provides a context for students to demonstrate the ability to use the target language to interact in a wide range of culturally and socially authentic and/or simulated situations. This course focuses on the degree of ease and accuracy with which students are able to communicate in the target language, as well as the culturally-appropriate nature of the communication. Additionally, students will further develop understanding of Arabic-speaking culture through discussing changes in interrelations among and factors that influence the practices, products and perspectives of the target culture; and researching and comparing the origins of idiomatic, colloquial and proverbial expressions in the target language. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the use of the Arabic language and cultural understanding outside of the classroom.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Arabic I, II, III, IV, V
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2000 Chinese I
(CHI I)

Chinese I, a course based on Indiana's Academic Standards for World Languages, introduces students to effective strategies for beginning Chinese language learning, and to various aspects of Chinese-speaking culture. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief guided conversations on familiar topics, and write simple sentences using characters. This course also emphasizes the development of reading and listening comprehension skills, such as recognizing characters and sounds of familiar words and comprehending brief oral directions. Additionally, students will examine the practices, products and perspectives of Chinese- speaking culture; recognize basic routine practices of the target culture; and recognize and use situation-appropriate non-verbal communication. This course further emphasizes making connections across content areas and the application of understanding Chinese language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2002 Chinese II
(CHI II)

Chinese II, a course based on Indiana's Academic Standards for World Languages, builds upon effective

strategies for Chinese language learning by encouraging the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write sentences and descriptions using characters. This course also emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and recognizing words and characters through stroke order and stroke count. Students will address the presentational mode by presenting prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation.

Additionally, students will describe the practices, products and perspectives of Chinese- speaking culture; report on basic family and social practices of the target culture; and describe contributions from the target culture. This course further emphasizes making connections across content areas and the application of understanding Chinese language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Chinese I
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2004 Chinese III
(CHI III)

Chinese III, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Chinese language learning by facilitating the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write simple paragraphs using characters. This course also emphasizes the continued development of reading and listening comprehension skills, such as using radicals, stroke order, and stroke count to guess meaning. Students will address the presentational mode by presenting student-created material on a variety of topics, as well as reading aloud to practice appropriate pronunciation. Additionally, students will continue to develop understanding of Chinese- speaking culture through recognition of the interrelations among the practices, products and perspectives of the target culture; discussion of significant events in the target culture; and investigation of elements that shape cultural identity in the target culture. This course further emphasizes making connections across content areas as well the application of understanding Chinese language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Chinese I and II
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2006 Chinese IV
(CHI IV)

Chinese IV, a course based on Indiana's Academic Standards for World Languages, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral

information are expanded through emphasis on practicing speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop understanding of Chinese-speaking culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target culture and the student's own culture. This course further emphasizes making connections across content areas through the design of activities and materials that integrate the target language and culture with concepts and skills from other content areas. The use and influence of the Chinese language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native Chinese speakers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Chinese I, II and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2008 Chinese V
(CHI V)

Chinese V, a course based on Indiana's Academic Standards for World Languages, provides opportunities for students to interact and exchange information in culturally and socially authentic and/or simulated situations to demonstrate integration of language skills with understanding of Chinese-speaking culture. This course emphasizes the use of appropriate formats, varied vocabulary and complex language structures within student communication, both oral and written, as well as the opportunity to produce and present creative material using the language. Additionally, students will continue to develop understanding of Chinese-speaking culture through investigating the origin and impact of significant events and contributions unique to the target culture, comparing and contrasting elements that shape cultural identity in the target culture and the student's own culture, and explaining how the target language and culture have impacted other communities. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the exploration of community resources intended for native Chinese speakers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Chinese I, II, III and IV
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2010 Chinese VI
(CHI VI)

Chinese VI, a course based on Indiana's Academic Standards for World Languages, provides a context for students to demonstrate the ability to use the target language to interact in a wide range of culturally and socially authentic and/or simulated situations. This course focuses on the degree of ease and accuracy with which students are able to communicate in the target language, as well as the culturally appropriate nature of the communication. Additionally, students will further develop an understanding of Chinese-speaking culture through discussing changes in interrelations among and factors that influence the practices, products and perspectives of the target culture; and researching and comparing the origins of idiomatic, colloquial and proverbial expressions in the target language. This course further emphasizes the

integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the use of the Chinese language and cultural understanding outside of the classroom.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Chinese I, II, III, IV and V
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2188 English as a New Language (ENL)

English as a New Language, an integrated English course based on the WIDA English Language Development (ELD) Standards, is the study of language, literature, composition and oral communication for English learners (ELs) so that they improve their proficiency in listening, speaking, reading, writing and comprehension of standard English. Students study English vocabulary used in fictional texts and content-area texts, speak and write English so that they can function within the regular school setting and an English-speaking society, and deliver oral presentations appropriate to their respective levels of English proficiency.

- Recommended Grade: Recommended Grade Level: 9, 10, 11, and 12. The intent of the ENL course is to move students as successfully, smoothly, and rapidly as possible into the Core 40 English courses offered in grades 9-12.
- Required Prerequisites: none
- Recommended Prerequisites: English proficiency placement test results
- Credit: World Language credit (2188): If ENL course work addresses Indiana's Academic Standards for World Languages and is taken concurrently with another English/Language Arts course, up to 8 credits accrued may count as World Language credits for all diplomas.
- English/Language Arts credit (1012): If ENL course work addresses Indiana's Academic Standards for English/Language Arts and is based on general ELA curriculum and student's Individualized Learning Plan, up to 8 credits accrued can be counted as the required English/ Language Arts credits for all diplomas

2020 French I (FREN I)

French I, a course based on Indiana's Academic Standards for World Languages, introduces students to effective strategies for beginning French language learning, and to various aspects of French-speaking culture. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief guided conversations on familiar topics, and write short passages with guidance. This course also emphasizes the development of reading and listening comprehension skills, such as reading isolated words and phrases in a situational context and comprehending brief written or oral directions. Additionally, students will examine the practices, products and perspectives of French-speaking culture; recognize basic routine practices of the target culture; and recognize and use situation-appropriate non-verbal communication. This course further emphasizes making connections across content areas and the application of understanding French language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12

- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2022 French II
(FREN II)

French II, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for French language learning by encouraging the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write cohesive passages with greater independence and using appropriate formats. This course also emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and comprehending longer written or oral directions. Students will address the presentational mode by presenting prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will describe the practices, products and perspectives of French-speaking culture; report on basic family and social practices of the target culture; and describe contributions from the target culture. This course further emphasizes making connections across content areas and the application of understanding French language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: French I
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2024 French III
(FREN III)

French III, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for French language learning by facilitating the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write cohesive information with greater detail. This course also emphasizes the continued development of reading and listening comprehension skills, such as using cognates, synonyms and antonyms to derive meaning from written and oral information, as well as comprehending detailed written or oral directions. Students will address the presentational mode by presenting student-created material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will continue to develop understanding of French-speaking culture through recognition of the interrelations among the practices, products and perspectives of the target culture; discussion of significant events in the target culture; and investigation of elements that shape cultural identity in the target culture. This course further emphasizes making connections across content areas as well the application of understanding French language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: French I and II
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester

- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2026 French IV
(FREN IV)

French IV, a course based on Indiana's Academic Standards for World Languages, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral information are expanded through emphasis on practicing speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop understanding of French-speaking culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target culture and the student's own culture. This course further emphasizes making connections across content areas through the design of activities and materials that integrate the target language and culture with concepts and skills from other content areas. The use and influence of the French language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native French speakers.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: French I, II and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2028 French V
(FREN V)

French V, a course based on Indiana's Academic Standards for World Languages, provides opportunities for students to interact and exchange information in culturally and socially authentic and/or simulated situations to demonstrate integration of language skills with understanding of French-speaking culture. This course emphasizes the use of appropriate formats, varied vocabulary and complex language structures within student communication, both oral and written, as well as the opportunity to produce and present creative material using the language. Additionally, students will continue to develop an understanding of French-speaking culture through investigating the origin and impact of significant events and contributions unique to the target culture, comparing and contrasting elements that shape cultural identity in the target culture and the student's own culture, and explaining how the target language and culture have impacted other communities. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the exploration of community resources intended for native French speakers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: French I, II, III and IV
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2030 French VI
(FREN VI)

French VI, a course based on Indiana's Academic Standards for World Languages, provides a context for students to demonstrate the ability to use the target language to interact in a wide range of culturally and socially authentic and/or simulated situations. This course focuses on the degree of ease and accuracy with which students are able to communicate in the target language, as well as the culturally-appropriate nature of the communication. Additionally, students will further develop understanding of French-speaking culture through discussing changes in interrelations among and factors that influence the practices, products and perspectives of the target culture; and researching and comparing the origins of idiomatic, colloquial and proverbial expressions in the target language. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the use of the French language and cultural understanding outside of the classroom.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: French I, II, III, IV and V
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2040 German I
(GER I)

German I, a course based on Indiana's Academic Standards for World Languages, introduces students to effective strategies for beginning German language learning, and to various aspects of German-speaking culture. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief guided conversations on familiar topics, and write short passages with guidance. This course also emphasizes the development of reading and listening comprehension skills, such as reading isolated words and phrases in a situational context and comprehending brief written or oral directions. Additionally, students will examine the practices, products and perspectives of German-speaking culture; recognize basic routine practices of the target culture; and recognize and use situation-appropriate non-verbal communication. This course further emphasizes making connections across content areas and the application of understanding German language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2042 German II
(GER II)

German II, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for German language learning by encouraging the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write cohesive passages with greater independence and using appropriate formats. This course also emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and comprehending longer written or oral directions. Students will address the presentational mode by

presenting prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will describe the practices, products and perspectives of German-speaking culture; report on basic family and social practices of the target culture; and describe contributions from the target culture. This course further emphasizes making connections across content areas and the application of understanding German language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: German I
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2044 German III
(GER III)

German III, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for German language learning by facilitating the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write cohesive information with greater detail. This course also emphasizes the continued development of reading and listening comprehension skills, such as using cognates, synonyms and antonyms to derive meaning from written and oral information, as well as comprehending detailed written or oral directions. Students will address the presentational mode by presenting student-created material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will continue to develop understanding of German- speaking culture through recognition of the interrelations among the practices, products and perspectives of the target culture; discussion of significant events in the target culture; and investigation of elements that shape cultural identity in the target culture. This course further emphasizes making connections across content areas as well the application of understanding German language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: German I and II
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2046 German IV
(GER IV)

German IV, a course based on Indiana's Academic Standards for World Languages, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral information are expanded through emphasis on practicing speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop understanding of German-speaking culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target culture and the student's own culture. This course further emphasizes making connections across content areas through the design of activities and materials that integrate the target language and culture with

concepts and skills from other content areas. The use and influence of the German language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native German speakers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: German I, II and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2048 German V
(GER V)

German V, a course based on Indiana's Academic Standards for World Languages, provides opportunities for students to interact and exchange information in culturally and socially authentic and/or simulated situations to demonstrate integration of language skills with understanding of German-speaking culture. This course emphasizes the use of appropriate formats, varied vocabulary and complex language structures within student communication, both oral and written, as well as the opportunity to produce and present creative material using the language. Additionally, students will continue to develop understanding of German-speaking culture through investigating the origin and impact of significant events and contributions unique to the target culture, comparing and contrasting elements that shape cultural identity in the target culture and the student's own culture, and explaining how the target language and culture have impacted other communities. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the exploration of community resources intended for native German speakers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: German I, II, III and IV
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2050 German VI
(GER VI)

German VI, a course based on Indiana's Academic Standards for World Languages, provides a context for students to demonstrate the ability to use the target language to interact in a wide range of culturally and socially authentic and/or simulated situations. This course focuses on the degree of ease and accuracy with which students are able to communicate in the target language, as well as the culturally-appropriate nature of the communication. Additionally, students will further develop an understanding of German-speaking culture through discussing changes in interrelations among and factors that influence the practices, products and perspectives of the target culture; and researching and comparing the origins of idiomatic, colloquial and proverbial expressions in the target language. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the use of the German language and cultural understanding outside of the classroom.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: German I, II, III, IV and V
- Recommended Prerequisites: none

- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2220 Greek I
(GREEK I)

Greek I, a course based on Indiana's Academic Standards for World Languages, introduces students to effective strategies for beginning Greek language learning, and to various aspects of classical Greek culture. This course emphasizes the development of reading and listening comprehension skills, such as reading isolated words and phrases in a situational context and comprehending brief written or oral directions. Though interpersonal communication is not an explicit emphasis of this course, opportunities may be provided for students to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief guided conversations on familiar topics, and write short passages with guidance. Additionally, students will examine the practices, products and perspectives of classical Greek culture; recognize basic routine practices of the target culture; and recognize and use situation-appropriate non-verbal communication. This course further emphasizes making connections across content areas and the application of understanding Greek language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2222 Greek II
(GREEK II)

Greek II, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Greek language learning by encouraging the use of the language and cultural understanding for self-directed purposes. This course emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and comprehending longer written or oral directions. Students will address the presentational mode by presenting prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Though interpersonal communication is not an explicit emphasis of this course, opportunities may be provided for students to make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write cohesive passages with greater independence and using appropriate formats. Additionally, students will describe the practices, products and perspectives of classical Greek culture; report on basic family and social practices of the target culture; and describe contributions from the target culture. This course further emphasizes making connections across content areas and the application of understanding Greek language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Greek I
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2224 Greek III

(GREEK III)

Greek III, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Greek language learning by facilitating the use of the language and cultural understanding for self-directed purposes. This course emphasizes the continued development of reading and listening comprehension skills, such as using cognates, synonyms and antonyms to derive meaning from written and oral information, as well as comprehending detailed written or oral directions. Students will address the presentational mode by presenting student-created material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Though interpersonal communication is not an explicit emphasis of this course, opportunities may be provided for students to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write cohesive information with greater detail. Additionally, students will continue to develop an understanding of classical Greek culture through recognition of the interrelations among the practices, products and perspectives of the target culture; discussion of significant events in the target culture; and investigation of elements that shape cultural identity in the target culture. This course further emphasizes making connections across content areas as well the application of understanding Greek language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Greek I and II
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2226 Greek IV
(GREEK IV)

Greek IV, a course based on Indiana's Academic Standards for World Languages, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. Students will continue to develop presentation skills by giving presentations on cultural topics and presenting culturally authentic material, such as plays. This course emphasizes the continued development of reading and listening comprehension skills, such as guessing meaning in familiar and unfamiliar contexts and using elements of word formation to expand vocabulary and derive meaning. Though interpersonal communication is not an explicit emphasis of this course, opportunities may be provided for students to practice strategies that facilitate advanced oral and written communication, such as circumlocution. Additionally, students will continue to develop understanding of classical Greek culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target culture and the student's own culture. This course further emphasizes making connections across content areas as well as exploration of the use and influence of the Greek language and culture in the community beyond the classroom through activities such as the identification and evaluation of resources intended for those fluent in Greek.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Greek I, II and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2228 Greek V
(GREEK V)

Greek V, a course based on Indiana's Academic Standards for World Languages, provides opportunities for students to interact and exchange information in culturally and socially authentic and/or simulated situations to demonstrate integration of language skills with understanding of classical Greek culture. This course emphasizes the use of appropriate formats, varied vocabulary and complex language structures within student communication, both oral and written, as well as the opportunity to produce and present creative material using the language. Additionally, students will continue to develop understanding of classical Greek culture through investigating the origin and impact of significant events and contributions unique to the target culture, comparing and contrasting elements that shape cultural identity in the target culture and the student's own culture, and explaining how the target language and culture have impacted other communities. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the exploration of community resources intended for those fluent in Greek.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Greek I, II, III and IV
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2230 Greek VI
(GREEK VI)

Greek VI, a course based on Indiana's Academic Standards for World Languages, provides a context for students to demonstrate the ability to use the target language to interact in a wide range of culturally and socially authentic and/or simulated situations. This course focuses on the degree of ease and accuracy with which students are able to communicate and present in the target language, as well as the culturally-appropriate nature of the communication and presentation. Additionally, students will further develop understanding of classical Greek culture through discussing changes in interrelations among and factors that influence the practices, products and perspectives of the target culture; and researching and comparing the origins of idiomatic, colloquial and proverbial expressions in the target language. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the use of the Greek language and cultural understanding outside of the classroom.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Greek I, II, III, IV and V
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2240 Hebrew I
(HEBREW I)

Hebrew I, a course based on Indiana's Academic Standards for World Languages, introduces students to effective strategies for beginning Hebrew language learning, and to various aspects of Hebrew-speaking culture. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief guided conversations on familiar topics, and write short passages with guidance. This course also emphasizes the development of reading and listening comprehension skills, such as reading isolated words and phrases in a situational context and

comprehending brief written or oral directions. Additionally, students will examine the practices, products and perspectives of Hebrew-speaking culture; recognize basic routine practices of the target culture; and recognize and use situation-appropriate non-verbal communication. This course further emphasizes making connections across content areas and the application of understanding Hebrew language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2242 Hebrew II
(HEBREW II)

Hebrew II, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Hebrew language learning by encouraging the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write cohesive passages with greater independence and using appropriate formats. This course also emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and comprehending longer written or oral directions. Students will address the presentational mode by presenting prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will describe the practices, products and perspectives of Hebrew-speaking culture; report on basic family and social practices of the target culture; and describe contributions from the target culture. This course further emphasizes making connections across content areas and the application of understanding Hebrew language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Hebrew I
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2244 Hebrew III
(HEBREW III)

Hebrew III, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Hebrew language learning by facilitating the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write cohesive information with greater detail. This course also emphasizes the continued development of reading and listening comprehension skills, such as using cognates, synonyms and antonyms to derive meaning from written and oral information, as well as comprehending detailed written or oral directions. Students will address the presentational mode by presenting student-created material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will continue to develop understanding of Hebrew- speaking culture through recognition of the interrelations among

the practices, products and perspectives of the target culture; discussion of significant events in the target culture; and investigation of elements that shape cultural identity in the target culture. This course further emphasizes making connections across content areas as well the application of understanding Hebrew language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Hebrew I and II
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2246 Hebrew IV
(HEBREW IV)

Hebrew IV, a course based on Indiana's Academic Standards for World Languages, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral information are expanded through emphasis on the practice of speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop understanding of Hebrew-speaking culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target culture and the student's own culture. This course further emphasizes making connections across content areas through the design of activities and materials that integrate the target language and culture with concepts and skills from other content areas. The use and influence of the Hebrew language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native Hebrew speakers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Hebrew I, II and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2248 Hebrew V
(HEBREW V)

Hebrew V, a course based on Indiana's Academic Standards for World Languages, provides opportunities for students to interact and exchange information in culturally and socially authentic and/or simulated situations to demonstrate integration of language skills with understanding of Hebrew-speaking culture. This course emphasizes the use of appropriate formats, varied vocabulary and complex language structures within student communication, both oral and written, as well as the opportunity to produce and present creative material using the language. Additionally, students will continue to develop understanding of Hebrew-speaking culture through investigating the origin and impact of significant events and contributions unique to the target culture, comparing and contrasting elements that shape cultural identity in the target culture and the student's own culture, and explaining how the target language and culture have impacted other communities. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the exploration of community resources intended for

native Hebrew speakers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Hebrew I, II, III and IV
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2250 Hebrew VI
(HEBREW VI)

Hebrew VI, a course based on Indiana's Academic Standards for World Languages, provides a context for students to demonstrate the ability to use the target language to interact in a wide range of culturally and socially authentic and/or simulated situations. This course focuses on the degree of ease and accuracy with which students are able to communicate in the target language, as well as the culturally-appropriate nature of the communication. Additionally, students will further develop understanding of Hebrew-speaking culture through discussing changes in interrelations among and factors that influence the practices, products and perspectives of the target culture; and researching and comparing the origins of idiomatic, colloquial and proverbial expressions in the target language. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the use of the Hebrew language and cultural understanding outside of the classroom.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Hebrew I, II, III, IV and V
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2260 Italian I
(ITAL I)

Italian I, a course based on Indiana's Academic Standards for World Languages, introduces students to effective strategies for beginning Italian language learning, and to various aspects of Italian-speaking culture. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief guided conversations on familiar topics, and write short passages with guidance. This course also emphasizes the development of reading and listening comprehension skills, such as reading isolated words and phrases in a situational context and comprehending brief written or oral directions. Additionally, students will examine the practices, products and perspectives of Italian-speaking culture; recognize basic routine practices of the target culture; and recognize and use situation-appropriate non-verbal communication. This course further emphasizes making connections across content areas and the application of understanding Italian language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas

- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2262 Italian II
(ITAL II)

Italian II, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Italian language learning by encouraging the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write cohesive passages with greater independence and using appropriate formats. This course also emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and comprehending longer written or oral directions. Students will address the presentational mode by presenting prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will describe the practices, products and perspectives of Italian-speaking culture; report on basic family and social practices of the target culture; and describe contributions from the target culture. This course further emphasizes making connections across content areas and the application of understanding Italian language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Italian I
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2264 Italian III
(ITAL III)

Italian III, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Italian language learning by facilitating the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write cohesive information with greater detail. This course also emphasizes the continued development of reading and listening comprehension skills, such as using cognates, synonyms and antonyms to derive meaning from written and oral information, as well as comprehending detailed written or oral directions. Students will address the presentational mode by presenting student-created material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will continue to develop understanding of Italian-speaking culture through recognition of the interrelations among the practices, products and perspectives of the target culture; discussion of significant events in the target culture; and investigation of elements that shape cultural identity in the target culture. This course further emphasizes making connections across content areas as well the application of understanding Italian language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Italian I and II
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2266 Italian IV
(ITAL IV)

Italian IV, a course based on Indiana's Academic Standards for World Languages, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral information are expanded through emphasis on practicing speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop understanding of Italian-speaking culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target culture and the student's own culture. This course further emphasizes making connections across content areas through the design of activities and materials that integrate the target language and culture with concepts and skills from other content areas. The use and influence of the Italian language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native Italian speakers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Italian I, II and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2268 Italian V
(ITAL V)

Italian V, a course based on Indiana's Academic Standards for World Languages, provides opportunities for students to interact and exchange information in culturally and socially authentic and/or simulated situations to demonstrate integration of language skills with understanding of Italian-speaking culture. This course emphasizes the use of appropriate formats, varied vocabulary and complex language structures within student communication, both oral and written, as well as the opportunity to produce and present creative material using the language. Additionally, students will continue to develop understanding of Italian-speaking culture through investigating the origin and impact of significant events and contributions unique to the target culture, comparing and contrasting elements that shape cultural identity in the target culture and the student's own culture, and explaining how the target language and culture have impacted other communities. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the exploration of community resources intended for native Italian speakers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Italian I, II, III and IV
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2270 Italian VI
(ITAL VI)

Italian VI, a course based on Indiana's Academic Standards for World Languages, provides a context for students to demonstrate the ability to use the target language to interact in a wide range of culturally and socially authentic and/or simulated situations. This course focuses on the degree of ease and accuracy with which students are able to communicate in the target language, as well as the culturally-appropriate nature of the communication. Additionally, students will further develop understanding of Italian-speaking culture through discussing changes in interrelations among and factors that influence the practices, products and perspectives of the target culture; and researching and comparing the origins of idiomatic, colloquial and proverbial expressions in the target language. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the use of the Italian language and cultural understanding outside of the classroom.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Italian I, II, III, IV and V
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2060 Japanese I
(JAP I)

Japanese I, a course based on Indiana's Academic Standards for World Languages, introduces students to effective strategies for beginning Japanese language learning, and to various aspects of Japanese-speaking culture. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief guided conversations on familiar topics, and write simple sentences using characters. This course also emphasizes the development of reading and listening comprehension skills, such as recognizing letters and sounds of familiar words and comprehending brief oral directions. Additionally, students will examine the practices, products and perspectives of Japanese-speaking culture; recognize basic routine practices of the target culture; and recognize and use situation-appropriate non-verbal communication. This course further emphasizes making connections across content areas and the application of understanding Japanese language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2062 Japanese II
(JAP II)

Japanese II, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Japanese language learning by encouraging the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write sentences and descriptions using characters. This course also emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and recognizing words and

characters through stroke order and stroke count. Students will address the presentational mode by presenting prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation. Additionally, students will describe the practices, products and perspectives of Japanese-speaking culture; report on basic family and social practices of the target culture; and describe contributions from the target culture. This course further emphasizes making connections across content areas and the application of understanding Japanese language and culture outside of the classroom

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Japanese I
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2064 Japanese III
(JAP III)

Japanese III, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Japanese language learning by facilitating the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write simple paragraphs using characters. This course also emphasizes the continued development of reading and listening comprehension skills, such as using radicals, stroke order, and stroke count to guess meaning. Students will address the presentational mode by presenting student- created material on a variety of topics, as well as reading aloud to practice appropriate pronunciation. Additionally, students will continue to develop understanding of Japanese-speaking culture through recognition of the interrelations among the practices, products and perspectives of the target culture; discussion of significant events in the target culture; and investigation of elements that shape cultural identity in the target culture. This course further emphasizes making connections across content areas as well the application of understanding Japanese language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Japanese I and II
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2066 Japanese IV
(JAP IV)

Japanese IV, a course based on Indiana's Academic Standards for World Languages, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral information are expanded through emphasis on practicing speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop understanding of Japanese-speaking culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target culture and the student's own culture.

This course further emphasizes making connections across content areas through the design of activities and materials that integrate the target language and culture with concepts and skills from other content areas. The use and influence of the Japanese language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native Japanese speakers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Japanese I, II and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2068 Japanese V
(JAP V)

Japanese V, a course based on Indiana's Academic Standards for World Languages, provides opportunities for students to interact and exchange information in culturally and socially authentic and/or simulated situations to demonstrate integration of language skills with understanding of Japanese-speaking culture. This course emphasizes the use of appropriate formats, varied vocabulary and complex language structures within student communication, both oral and written, as well as the opportunity to produce and present creative material using the language. Additionally, students will continue to develop understanding of Japanese- speaking culture through investigating the origin and impact of significant events and contributions unique to the target culture, comparing and contrasting elements that shape cultural identity in the target culture and the student's own culture, and explaining how the target language and culture have impacted other communities. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the exploration of community resources intended for native Japanese speakers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Japanese I, II, III and IV
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2070 Japanese VI
(JAP VI)

Japanese VI, a course based on Indiana's Academic Standards for World Languages, provides a context for students to demonstrate the ability to use the target language to interact in a wide range of culturally and socially authentic and/or simulated situations. This course focuses on the degree of ease and accuracy with which students are able to communicate in the target language, as well as the culturally-appropriate nature of the communication. Additionally, students will further develop understanding of Japanese-speaking culture through discussing changes in interrelations among and factors that influence the practices, products and perspectives of the target culture; and researching and comparing the origins of idiomatic, colloquial and proverbial expressions in the target language. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the use of the Japanese language and cultural understanding outside of the classroom.

- Recommended Grade: 10, 11, 12

- Required Prerequisites: Japanese I, II, III, IV, and V
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2280 Korean I
(KOREAN I)

Korean I, a course based on Indiana's Academic Standards for World Languages, introduces students to effective strategies for beginning Korean language learning, and to various aspects of Korean-speaking culture. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief guided conversations on familiar topics, and write simple sentences using characters. This course also emphasizes the development of reading and listening comprehension skills, such as recognizing letters and sounds of familiar words and comprehending brief oral directions. Additionally, students will examine the practices, products and perspectives of Korean-speaking culture; recognize basic routine practices of the target culture; and recognize and use situation- appropriate non-verbal communication. This course further emphasizes making connections across content areas and the application of understanding Korean language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2282 Korean II
(KOREAN II)

Korean II, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Korean language learning by encouraging the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write sentences and descriptions using characters. This course also emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and recognizing words and characters through stroke order and stroke count. Students will address the presentational mode by presenting prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation. Additionally, students will describe the practices, products and perspectives of Korean-speaking culture; report on basic family and social practices of the target culture; and describe contributions from the target culture. This course further emphasizes making connections across content areas and the application of understanding Korean language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Korean I
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2284 Korean III
(KOREAN III)

Korean III, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Korean language learning by facilitating the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write simple paragraphs using characters. This course also emphasizes the continued development of reading and listening comprehension skills, such as using radicals, stroke order, and stroke count to guess meaning. Students will address the presentational mode by presenting student-created material on a variety of topics, as well as reading aloud to practice appropriate pronunciation. Additionally, students will continue to develop understanding of Korean-speaking culture through recognition of the interrelations among the practices, products and perspectives of the target culture; discussion of significant events in the target culture; and investigation of elements that shape cultural identity in the target culture. This course further emphasizes making connections across content areas as well the application of understanding Korean language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Korean I and II
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2286 Korean IV
(KOREAN IV)

Korean IV, a course based on Indiana's Academic Standards for World Languages, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral information are expanded through emphasis on practicing speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop understanding of Korean-speaking culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target culture and the student's own culture. This course further emphasizes making connections across content areas through the design of activities and materials that integrate the target language and culture with concepts and skills from other content areas. The use and influence of the Korean language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native Korean speakers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Korean I, II, and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2288 Korean V
(KOREAN V)

Korean V, a course based on Indiana's Academic Standards for World Languages, provides opportunities

for students to interact and exchange information in culturally and socially authentic and/or simulated situations to demonstrate integration of language skills with understanding of Korean-speaking culture. This course emphasizes the use of appropriate formats, varied vocabulary and complex language structures within student communication, both oral and written, as well as the opportunity to produce and present creative material using the language. Additionally, students will continue to develop understanding of Korean-speaking culture through investigating the origin and impact of significant events and contributions unique to the target culture, comparing and contrasting elements that shape cultural identity in the target culture and the student's own culture, and explaining how the target language and culture have impacted other communities. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the exploration of community resources intended for native Korean speakers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Korean I, II, III, and IV
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2290 Korean VI
(KOREAN VI)

Korean VI, a course based on Indiana's Academic Standards for World Languages, provides a context for students to demonstrate the ability to use the target language to interact in a wide range of culturally and socially authentic and/or simulated situations. This course focuses on the degree of ease and accuracy with which students are able to communicate in the target language, as well as the culturally-appropriate nature of the communication. Additionally, students will further develop understanding of Korean-speaking culture through discussing changes in interrelations among and factors that influence the practices, products and perspectives of the target culture; and researching and comparing the origins of idiomatic, colloquial and proverbial expressions in the target language. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the use of the Korean language and cultural understanding outside of the classroom.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Korean I, II, III, IV, and V
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2190 Language for Heritage Speakers I
(LHS I)

Language for Heritage Speakers I is a course designed for heritage speakers of world languages who have demonstrated some degree of oral proficiency. The purpose of this course is to enable Heritage Language Learners to increase proficiency and bi-literacy in their native language by providing opportunities to improve reading and listening comprehension, as well as writing and grammar skills. Special attention will be given to grammar and vocabulary of the standard language, as well as to the importance of biculturalism and bilingualism in the United States today. Placement of students and development of the course curriculum is dependent upon the population of students enrolled in this course.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none, or placement as determined at local level
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2192 Language for Heritage Speakers II (LHS II)

Language for Heritage Speakers II builds upon Language for Heritage Speakers I, and is a course designed for heritage speakers of world languages who have demonstrated some degree of oral proficiency. The purpose of this course is to enable Heritage Language Learners to increase proficiency and bi-literacy in their native language by providing opportunities to improve reading and listening comprehension, as well as writing and grammar skills. Special attention will be given to grammar and vocabulary of the standard language, as well as to the importance of biculturalism and bilingualism in the United States today. Placement of students and development of the course curriculum is dependent upon the population of students enrolled in this course.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Language for Heritage Language Learners I, or placement as determined at local level
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2194 Language for Heritage Speakers III (LHS III)

Language for Heritage Speakers III builds upon Language for Heritage Speakers II, and is a course designed for heritage speakers of world languages who have demonstrated some degree of oral proficiency. The purpose of this course is to enable Heritage Language Learners to increase proficiency and bi-literacy in their native language by providing opportunities to improve reading and listening comprehension, as well as writing and grammar skills. Special attention will be given to grammar and vocabulary of the standard language, as well as to the importance of biculturalism and bilingualism in the United States today. Placement of students and development of the course curriculum is dependent upon the population of students enrolled in this course.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Language for Heritage Language Learners II, or placement as determined at local level
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2080 Latin I (LAT I)

Latin I, a course based on Indiana's Academic Standards for World Languages, introduces students to effective strategies for beginning Latin language learning, and to various aspects of classical Roman

culture. This course emphasizes the development of reading and listening comprehension skills, such as reading isolated words and phrases in a situational context and comprehending brief written or oral directions. Though interpersonal communication is not an explicit emphasis of this course, opportunities may be provided for students to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief guided conversations on familiar topics, and write short passages with guidance. Additionally, students will examine the practices, products and perspectives of classical Roman culture; recognize basic routine practices of the target culture; and recognize and use situation-appropriate non-verbal communication. This course further emphasizes making connections across content areas and the application of understanding Latin language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2082 Latin II
(LAT II)

Latin II, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Latin language learning by encouraging the use of the language and cultural understanding for self-directed purposes. This course emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and comprehending longer written or oral directions. Students will address the presentational mode by presenting prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Though interpersonal communication is not an explicit emphasis of this course, opportunities may be provided for students to make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write cohesive passages with greater independence and using appropriate formats. Additionally, students will describe the practices, products and perspectives of classical Roman culture; report on basic family and social practices of the target culture; and describe contributions from the target culture. This course further emphasizes making connections across content areas and the application of understanding Latin language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Latin I
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2084 Latin III
(LAT III)

Latin III, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Latin language learning by facilitating the use of the language and cultural understanding for self-directed purposes. This course emphasizes the continued development of reading and listening comprehension skills, such as using cognates, synonyms and antonyms to derive meaning from written and oral information, as well as comprehending details written or oral directions. Students will address the presentational mode by presenting student-created material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation.

Though interpersonal communication is not an explicit emphasis of this course, opportunities may be provided for students to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write cohesive information with greater detail. Additionally, students will continue to develop understanding of classical Roman culture through recognition of the interrelations among the practices, products and perspectives of the target culture; discussion of significant events in the target culture; and investigation of elements that shape cultural identity in the target culture. This course further emphasizes making connections across content areas as well the application of understanding Latin language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Latin I and II
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2086 Latin IV
(LAT IV)

Latin IV, a course based on Indiana's Academic Standards for World Languages, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. Students will continue to develop presentation skills by giving presentations on cultural topics and presenting culturally authentic material, such as plays. This course emphasizes the continued development of reading and listening comprehension skills, such as guessing meaning in familiar and unfamiliar contexts and using elements of word formation to expand vocabulary and derive meaning. Though interpersonal communication is not an explicit emphasis of this course, opportunities may be provided for students to practice strategies that facilitate advanced oral and written communication, such as circumlocution. Additionally, students will continue to develop understanding of classical Roman culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target culture and the student's own culture. This course further emphasizes making connections across content areas as well as exploration of the use and influence of the Latin language and culture in the community beyond the classroom through activities such as the identification and evaluation of resources intended for those fluent in Latin.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Latin I, II and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2088 Latin V
(LAT V)

Latin V, a course based on Indiana's Academic Standards for World Languages, provides opportunities for students to interact and exchange information in culturally and socially authentic and/or simulated situations to demonstrate integration of language skills with understanding of classical Roman culture. This course emphasizes the use of appropriate formats, varied vocabulary and complex language structures within student communication, both oral and written, as well as the opportunity to produce and present creative material using the language. Additionally, students will continue to develop understanding of classical Roman culture through investigating the origin and impact of significant events and

contributions unique to the target culture, comparing and contrasting elements that shape cultural identity in the target culture and the student's own culture, and explaining how the target language and culture have impacted other communities. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the exploration of community resources intended for those fluent in Latin.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Latin I, II, III and IV
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2090 Latin VI
(LAT VI)

Latin VI, a course based on Indiana's Academic Standards for World Languages, provides a context for students to demonstrate the ability to use the target language to interact in a wide range of culturally and socially authentic and/or simulated situations. This course focuses on the degree of ease and accuracy with which students are able to communicate and present in the target language, as well as the culturally-appropriate nature of the communication and presentation. Additionally, students will further develop understanding of classical Roman culture through discussing changes in interrelations among and factors that influence the practices, products and perspectives of the target culture; and researching and comparing the origins of idiomatic, colloquial and proverbial expressions in the target language. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the use of the Latin language and cultural understanding outside of the classroom.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Latin I, II, III, IV and V
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2100 Russian I
(RUS I)

Russian I, a course based on Indiana's Academic Standards for World Languages, introduces students to effective strategies for beginning Russian language learning, and to various aspects of Russian-speaking culture. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief guided conversations on familiar topics, and write short passages with guidance. This course also emphasizes the development of reading and listening comprehension skills, such as reading isolated words and phrases in a situational context and comprehending brief written or oral directions. Additionally, students will examine the practices, products and perspectives of Russian-speaking culture; recognize basic routine practices of the target culture; and recognize and use situation-appropriate non-verbal communication. This course further emphasizes making connections across content areas and the application of understanding Russian language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12

- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2102 Russian II
(RUS II)

Russian II, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Russian language learning by encouraging the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write cohesive passages with greater independence and using appropriate formats. This course also emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and comprehending longer written or oral directions. Students will address the presentational mode by presenting prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will describe the practices, products and perspectives of Russian-speaking culture; report on basic family and social practices of the target culture; and describe contributions from the target culture. This course further emphasizes making connections across content areas and the application of understanding Russian language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Russian I
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2104 Russian III
(RUS III)

Russian III, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Russian language learning by facilitating the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write cohesive information with greater detail. This course also emphasizes the continued development of reading and listening comprehension skills, such as using cognates, synonyms and antonyms to derive meaning from written and oral information, as well as comprehending detailed written or oral directions. Students will address the presentational mode by presenting student-created material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will continue to develop understanding of Russian-speaking culture through recognition of the interrelations among the practices, products and perspectives of the target culture; discussion of significant events in the target culture; and investigation of elements that shape cultural identity in the target culture. This course further emphasizes making connections across content areas as well the application of understanding Russian language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Russian I and II
- Recommended Prerequisites: none

- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2106 Russian IV
(RUS IV)

Russian IV, a course based on Indiana's Academic Standards for World Languages, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral information are expanded through emphasis on the practice of speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop understanding of Russian-speaking culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target culture and the student's own culture. This course further emphasizes making connections across content areas through the design of activities and materials that integrate the target language and culture with concepts and skills from other content areas. The use and influence of the Russian language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native Russian speakers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Russian I, II, and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2108 Russian V
(RUS V)

Russian V, a course based on Indiana's Academic Standards for World Languages, provides opportunities for students to interact and exchange information in culturally and socially authentic and/or simulated situations to demonstrate integration of language skills with understanding of Russian-speaking culture. This course emphasizes the use of appropriate formats, varied vocabulary and complex language structures within student communication, both oral and written, as well as the opportunity to produce and present creative material using the language. Additionally, students will continue to develop understanding of Russian-speaking culture through investigating the origin and impact of significant events and contributions unique to the target culture, comparing and contrasting elements that shape cultural identity in the target culture and the student's own culture, and explaining how the target language and culture have impacted other communities. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the exploration of community resources intended for native Russian speakers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Russian I, II, III, and IV
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2110 Russian VI
(RUS VI)

Russian VI, a course based on Indiana's Academic Standards for World Languages, provides a context for students to demonstrate the ability to use the target language to interact in a wide range of culturally and socially authentic and/or simulated situations. This course focuses on the degree of ease and accuracy with which students are able to communicate in the target language, as well as the culturally-appropriate nature of the communication. Additionally, students will further develop understanding of Russian-speaking culture through discussing changes in interrelations among and factors that influence the practices, products and perspectives of the target culture; and researching and comparing the origins of idiomatic, colloquial and proverbial expressions in the target language. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the use of the Russian language and cultural understanding outside of the classroom.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Russian I, II, III, IV, and V
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2120 Spanish I
(SPAN I)

Spanish I, a course based on Indiana's Academic Standards for World Languages, introduces students to effective strategies for beginning Spanish language learning, and to various aspects of Spanish-speaking culture. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief guided conversations on familiar topics, and write short passages with guidance. This course also emphasizes the development of reading and listening comprehension skills, such as reading isolated words and phrases in a situational context and comprehending brief written or oral directions. Additionally, students will examine the practices, products and perspectives of Spanish-speaking culture; recognize basic routine practices of the target culture; and recognize and use situation-appropriate non-verbal communication. This course further emphasizes making connections across content areas and the application of understanding Spanish language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2122 Spanish II
(SPAN II)

Spanish II, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Spanish language learning by encouraging the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to requests and questions

in expanded contexts, participate independently in brief conversations on familiar topics, and write cohesive passages with greater independence and using appropriate formats. This course also emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and comprehending longer written or oral directions. Students will address the presentational mode by presenting prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will describe the practices, products and perspectives of Spanish-speaking culture; report on basic family and social practices of the target culture; and describe contributions from the target culture. This course further emphasizes making connections across content areas and the application of understanding Spanish language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Spanish I
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2124 Spanish III
(SPAN III)

Spanish III, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Spanish language learning by facilitating the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write cohesive information with greater detail. This course also emphasizes the continued development of reading and listening comprehension skills, such as using cognates, synonyms and antonyms to derive meaning from written and oral information, as well as comprehending detailed written or oral directions. Students will address the presentational mode by presenting student-created material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will continue to develop understanding of Spanish-speaking culture through recognition of the interrelations among the practices, products and perspectives of the target culture; discussion of significant events in the target culture; and investigation of elements that shape cultural identity in the target culture. This course further emphasizes making connections across content areas as well the application of understanding Spanish language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Spanish I and II
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2126 Spanish IV
(SPAN IV)

Spanish IV, a course based on Indiana's Academic Standards for World Languages, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral information are expanded through emphasis on practicing speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in

familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop understanding of Spanish-speaking culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target culture and the student's own culture. This course further emphasizes making connections across content areas through the design of activities and materials that integrate the target language and culture with concepts and skills from other content areas. The use and influence of the Spanish language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native Spanish speakers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Spanish I, II, and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2128 Spanish V
(SPAN V)

Spanish V, a course based on Indiana's Academic Standards for World Languages, provides opportunities for students to interact and exchange information in culturally and socially authentic and/or simulated situations to demonstrate integration of language skills with understanding of Spanish-speaking culture. This course emphasizes the use of appropriate formats, varied vocabulary and complex language structures within student communication, both oral and written, as well as the opportunity to produce and present creative material using the language. Additionally, students will continue to develop understanding of Spanish-speaking culture through investigating the origin and impact of significant events and contributions unique to the target culture, comparing and contrasting elements that shape cultural identity in the target culture and the student's own culture, and explaining how the target language and culture have impacted other communities. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the exploration of community resources intended for native Spanish speakers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Spanish I, II, III, and IV
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2130 Spanish VI
(SPAN VI)

Spanish VI, a course based on Indiana's Academic Standards for World Languages, provides a context for students to demonstrate the ability to use the target language to interact in a wide range of culturally and socially authentic and/or simulated situations. This course focuses on the degree of ease and accuracy with which students are able to communicate in the target language, as well as the culturally-appropriate nature of the communication. Additionally, students will further develop understanding of Spanish-speaking culture through discussing changes in interrelations among and factors that influence the practices, products and perspectives of the target culture; and researching and comparing the origins of idiomatic, colloquial and proverbial expressions in the target language. This course further emphasizes the integration of concepts and skills from other content areas with the

target language and cultural understanding, as well as the use of the Spanish language and cultural understanding outside of the classroom.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Spanish I, II, III, IV, and V
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2136 Workplace Spanish (WORKSPAN)

Workplace Spanish is a course designed to fuse students ’desired future career path with the use of the Spanish language in a variety of scenarios. This course will incorporate and emphasize the three principal modes of communication, as defined by the American Council on the Teaching of Foreign Language, which include the interpretive, the interpersonal, and the presentational, so that students can acquire relevant and practical skills in Spanish for future work based environments in order to prepare them for interactions with fluent speakers of Spanish outside the classroom. Students will focus on culturally-appropriate interactions, both verbal and non-verbal, along with specific vocabulary that relates directly to students ’chosen career path, ultimately connecting this course to a variety of content areas. A major focus of this course is on students ’proficiency (both oral and written) and will use a high percentage of only Spanish in instruction and students ’work production.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Minimum Prerequisites: Spanish I
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- This course counts as a general World Language credit as a directed elective or elective but will not count toward the Academic Honors Diploma as it is not part of a sequenced program.

2304 World Language Immersion - High School (WLD LANG IM)

World Language Immersion – High School is the continuation of a world language program that began at the elementary and middle levels, in which the majority of instructional time is spent learning subject matter taught in the world language. Students address specific grade-level academic standards for selected subjects; the focus of the world language program at the high school level is often delivery of the content, and teachers should follow the content area academic standards at the appropriate grade level for courses of this nature. Additionally, immersion courses at this level can focus on the development of advanced communication and literacy skills in the world language. Thus, world language learning is incorporated as necessary throughout the curriculum; language, content and culture are interwoven throughout instruction. Students in these courses typically reach higher levels of functional proficiency than through standard high school world language courses.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Determined at local level
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas

- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2140 World Language Other I
(WLD LANG OTHR I)

Other I, a course based on Indiana's Academic Standards for World Languages, introduces students to effective strategies for beginning target language learning, and to various aspects of the target culture. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief guided conversations on familiar topics, and write short passages with guidance. This course also emphasizes the development of reading and listening comprehension skills, such as reading isolated words and phrases in a situational context and comprehending brief written or oral directions. Additionally, students will examine the practices, products and perspectives of the target culture; recognize basic routine practices of the target culture; and recognize and use situation-appropriate non-verbal communication. This course further emphasizes making connections across content areas and the application of understanding the target language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2142 World Language Other II
(WLD LANG OTHR II)

Other II, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for target language learning by encouraging the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write cohesive passages with greater independence and using appropriate formats. This course also emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and comprehending longer written or oral directions. Students will address the presentational mode by presenting prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will describe the practices, products and perspectives of the target culture; report on basic family and social practices of the target culture; and describe contributions from the target culture. This course further emphasizes making connections across content areas and the application of understanding the target language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Other I
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2144 World Language Other III
(WLD LANG OTHR III)

Other III, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for target language learning by facilitating the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write cohesive information with greater detail. This course also emphasizes the continued development of reading and listening comprehension skills, such as using cognates, synonyms and antonyms to derive meaning from written and oral information, as well as comprehending detailed written or oral directions. Students will address the presentational mode by presenting student-created material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will continue to develop understanding of the target culture through recognition of the interrelations among the practices, products and perspectives of the target culture; discussion of significant events in the target culture; and investigation of elements that shape cultural identity in the target culture. This course further emphasizes making connections across content areas as well the application of understanding the target language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Other I and II
- Recommended Prerequisites: none
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2146 World Language Other IV (WLD LANG OTHR IV)

Other IV, a course based on Indiana's Academic Standards for World Languages, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral information are expanded through emphasis on practicing speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop understanding of the target culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target culture and the student's own culture. This course further emphasizes making connections across content areas through the design of activities and materials that integrate the target language and culture with concepts and skills from other content areas. The use and influence of the target language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native speakers of the target language.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Other I, II, and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2148 World Language Other V (WLD LANG OTHR V)

Other V, a course based on Indiana's Academic Standards for World Languages, provides opportunities for students to interact and exchange information in culturally and socially authentic

and/or simulated situations to demonstrate integration of language skills with understanding of the target culture. This course emphasizes the use of appropriate formats, varied vocabulary and complex language structures within student communication, both oral and written, as well as the opportunity to produce and present creative material using the language. Additionally, students will continue to develop understanding of the target culture through investigating the origin and impact of significant events and contributions unique to the target culture, comparing and contrasting elements that shape cultural identity in the target culture and the student's own culture, and explaining how the target language and culture have impacted other communities. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the exploration of community resources intended for native speakers of the target language.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Other I, II, III, and IV
- Recommended Prerequisites: none
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

2150 World Language Other VI (WLD LANG OTHR VI)

Other VI, a course based on Indiana's Academic Standards for World Languages, provides a context for students to demonstrate the ability to use the target language to interact in a wide range of culturally and socially authentic and/or simulated situations. This course focuses on the degree of ease and accuracy with which students are able to communicate in the target language, as well as the culturally-appropriate nature of the communication. Additionally, students will further develop understanding of the target culture through discussing changes in interrelations among and factors that influence the practices, products and perspectives of the target culture; and researching and comparing the origins of idiomatic, colloquial and proverbial expressions in the target language. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the use of the target language and cultural understanding outside of the classroom.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Other I, II, III, IV, and V
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a directed elective or elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

High School

Career and Technical Education

Course Titles and Descriptions

2023-2024

The Office of Career and Technical Education launched new Career and Technical Education (CTE) courses in the 2022-2023 school year. This initiative, called Next Level Programs of Study (NLPS), aims to improve the consistency, quality, and intentionality of CTE programs throughout Indiana.

To avoid confusion and to help with the transition to NLPS courses, the CTE portion of the Course Titles and Descriptions has been divided into two separate sections. The first section includes all NLPS courses, including capstone courses and recently developed pathways. The first section also includes previously existing courses that are expected to be maintained through the transition to NLPS, like introductory, foundational, and nonstandard CTE courses. The second section includes all of the previously existing courses that will be phased out after the 2023-2024 school year.

Additional changes in the Course Titles and Descriptions:

- Added two new pathways in Water Systems and Commercial Drivers. Additionally, there were a couple of courses added including a Digital Skills Capstone, Masonry, and an Advanced Architectural Drafting and Design.
- Added course codes to accommodate locally created CTE concentrator courses. These course codes should only be used with an approved nonstandard course waiver or adoption form.
- In Part II, All of the previous existing Level I and II courses have been reduced from a maximum of 3 credits per semester to a maximum of 1 credit per semester. Schools wishing to offer multiple credits should use NLPS courses.

Questions regarding Indiana's CTE courses can be directed to CTE@gov.IN.gov or may be answered in the NLPS FAQ Document. Please visit the CTE Programs of Study webpage to view additional NLPS resources.

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Business Management, Marketing, and Finance
Education and Training
Health Sciences
Hospitality and Human Services
Information Technology
Law and Public Safety
Science, Technology, Engineering, and Mathematics
Transportation

Advanced Manufacturing

4796 Introduction to Advanced Manufacturing and Logistics

INT ADV MFTG

Introduction to Advanced Manufacturing and Logistics focuses on manufacturing systems with an introduction to advanced manufacturing and logistics and their relationship to society, individuals, and the environment. Students apply the skills and knowledge of using modern manufacturing processes to obtain resources and change them into industrial materials, industrial products and consumer products. Students investigate the properties of engineered materials. Students study six major types of material processes: casting and molding; forming; separating; conditioning; finishing; and assembling. After gaining a working knowledge of these materials, students are introduced to advanced manufacturing, logistics, and business principles that are utilized in today's advanced manufacturing industry. Students gain a basic understanding of tooling, electrical skills, operation skills, inventory principles, MSDS's, chart and graph reading and MSSC concepts. There is also an emphasis placed on the flow process principles, material movement, safety, and related business operations. Students have the opportunity to develop the characteristics employers seek as well as skills that will help them in future endeavors.

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

4880 Advanced Manufacturing: Special Topics

ADV MFTG ST

Advanced Manufacturing: Special Topics is an extended learning experience designed to address the advancement and specialization of careers within the career cluster through the provision of a specialized course for a specific workforce need in the school's region. The learning experience is at a qualified site, and is designed to give the student the opportunity to learn and practice technical skills while working under the direction of the appropriately licensed professional. Throughout the course, students will focus on learning about employment opportunities and obtaining the knowledge, skills and attitudes essential for success in specific occupations. Course standards and curriculum must be tailored to the specific profession, preparing students to advance in this career field, and where applicable, provide students with opportunities for certification or dual credit. Participation in a related CTSO encourages the development of leadership, communication and career related skills, and opportunities for community service.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Advanced Manufacturing; CTE courses that would help prepare the student for success in this area.
- Credits: 1 semester course, up to 3 credits per semester, may be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas

- Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

6146 Advanced Career & Technical Education, College Credit: Advanced Manufacturing

ADV CTE CC AATC

Advanced Career and Technical Education, College Credit is a course title covering any CTE advanced course offered for credit by an accredited post-secondary institution through an adjunct agreement with a secondary school. The intent of this course is to allow students to earn college credit for courses with content that goes beyond that currently approved for high school credit. This course may be used for any dual enrollment course, including a joint program of study involving a postsecondary partnership.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: CTE courses that would help prepare the student for success in this area.
- Credits: 1 semester course, up to 3 credits per semester, may be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- A student should earn at least 3 postsecondary credits for each high school credit. Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

<u>Industry 4.0/Smart Manufacturing</u>

7220 Principles of Industry 4.0 and Digital Manufacturing

PRIN DIG MANF

Principles of Industry 4.0 introduces students to the Industrial Internet of Things (IIoT). Students will explore Industry 4.0 technologies such as artificial intelligence (AI), human to robot collaboration, big data, safety, electrical, sensors, digital integration, fluid power, robot operation, measurement, CAD, CNC, additive manufacturing, print reading, and technical mathematics. Students will complete hands-on labs, virtual simulations, projects, and critical thinking assignments to help prepare for SACA C-101 Certified Industry 4.0 Associate I - Basic Operations certification exam.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Advanced Manufacturing
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

4728 Robotics Design and Innovation

RDI

The Robotics Design and Innovation course is designed to introduce students to technology that is revolutionizing modern manufacturing and logistic centers across global markets. Students will explore careers that are related to the fourth industrial revolution and be introduced to the emerging technologies that make the manufacturing world ever changing. These technologies include; mechatronics, CAD/CAM, robots, programmable automation, cloud technologies, networking, big data and analytics. Students will design a part to be mass produced using processes such as additive and

subtractive manufacturing, while utilizing lean manufacturing concepts. The course will prepare students for the SACA, C-102 Certified Industry 4.0 Associate

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Industry 4.0 - Smart Manufacturing
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course

7100 Smart Manufacturing Systems

DIG MAN SYS

Smart Manufacturing Systems will deepen students' technical skills by studying the electrical system required to support an Industry 4.0 manufacturing system and building on skills learned in Principles of Industry 4.0 and Robotics Design and Innovation. Topics include Industry 4.0 technologies such as data analytics, cyber security, and smart sensors. Students will work on a 4-6 student team to build a working prototype of an Industry 4.0 system. Highlights include: Variable Frequency Drives, PLC troubleshooting, Cyber Security, Smart Sensors, and Smart network communications.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Industry 4.0 - Smart Manufacturing; Robotics Design and Innovation
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course

7222 Industry 4.0 - Smart Manufacturing Capstone

DIG MANF CAP

Industry 4.0 - Smart Manufacturing Capstone introduces the basic theory, operation, and programming of industrial robots and their applications through simulations and hands-on laboratory activities. Basic theory, operation, and programming of Programmable Logic Controllers (PLC) will be emphasized in this course along with how automation devices may be integrated with other machines. Multiple industry standard certifications in the field of robotics and automation will be available depending on the length of the course. As a capstone course, students are encouraged to participate in an intensive, embedded work-based learning experience.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Industry 4.0 - Smart Manufacturing; Robotics Design and Innovation; Smart Manufacturing Systems
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Counts as a quantitative reasoning course

<u>Industrial Maintenance:</u>

7108 Principles of Advanced Manufacturing

PRIN ADV MAN

Principles of Advanced Manufacturing is a course that includes classroom and laboratory experiences in Industrial Technology and Manufacturing Trends. Domains include safety and impact, manufacturing essentials, lean manufacturing, design principles, and careers in advanced manufacturing. Hands-on projects and team activities will allow students to apply learning on the latest industry technologies. Work-based learning experiences and industry partnerships are highly encouraged for an authentic industry experience.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Advanced Manufacturing
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7103 Advanced Manufacturing Technology

ADV MAN TECH

Advanced Manufacturing Technology introduces manufacturing processes and practices used in manufacturing environments. The course also covers key electrical principles, including current, voltage, resistance, power, inductance, capacitance, and transformers, along with basic mechanical and fluid power principles. Topics include, types of production, production materials, machining and tooling, manufacturing planning, production control, and product distribution will be covered. Students will be expected to understand the product life cycle from conception through distribution. This course also focuses on technologies used in production processes. Basic power systems, energy transfer systems, machine operation and control will be explored. This course will use lecture, lab, online simulation and programming to prepare students for Certified Production Technician Testing through Manufacturing Skill Standards Council (MSSC).

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Advanced Manufacturing
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

<u>IM: Automation and Robotics</u>

7106 Mechatronics Systems

MECH SYS

Mechatronics Systems covers the basic electrical and mechanical components and functions of a complex mechatronics system. Through a systems approach, students will learn about mechanical components which lead and support the energy through a mechanical system to increase efficiency and to reduce wear and tear. By understanding the complete system, students will learn and apply troubleshooting strategies to identify, localize and (where possible) to correct malfunctions. Preventive maintenance of mechanical elements and electrical drives as well as safety issues within the system will also be discussed.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Advanced Manufacturing; Advanced Manufacturing Technology
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7224 Industrial Automation and Robotics Capstone

AUTO ROB CAP

The Automation and Robotics Capstone course focuses on the installation, maintenance, and repair of industrial robots. Students will also learn the basics of pneumatic, electro pneumatic and hydraulic control circuits as well as the basic theory, fundamentals of digital logic, and programming of programmable logic controllers (PLCs) in a complex mechatronic system. Students will learn to identify malfunctioning robots and to apply troubleshooting strategies to identify and localize problems caused by pneumatic and hydraulic control circuits and PLC hardware. Completing the capstone course will provide students the opportunity to earn a postsecondary certificate and will prepare students to take nationally recognized industry certification exams. Hands-on projects and team activities will allow students to apply learning on the latest industry technologies. Extended work-based learning experiences and industry partnerships are highly encouraged for an authentic industry experience.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Advanced Manufacturing; Advanced Manufacturing Technology; Mechatronics Systems
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Counts as a quantitative reasoning course

<u>IM: Electrical</u>

7102 Industrial Electrical Fundamentals

IND ELC FUN

The Industrial Electrical Fundamentals course will introduce students to the National Electric Code and its application in designing and installing electrical circuits, selecting wiring materials and devices, and choosing wiring methods. Students will also gain a general understanding of common types of electric motors.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Advanced Manufacturing; Advanced Manufacturing Technology
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7260 Industrial Electrical Capstone

IND ELEC CAP

The Industrial Electrical Capstone course is designed to provide an understanding of circuits using alternating current and the motor operation as well as the operation and programming of programmable logic controllers (PLC). The course will also examine the electrical components in a complex mechatronic system. This course will give each student a general understanding of common types of electric motors, extending from the small shaded pole fan motors to the large three-phase motors. This course will use lecture, lab, online simulation and programming to prepare students for the C-207 Programmable Controller Systems 1 Certification through Smart Automation Certification Alliance (SACA).

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Advanced Manufacturing; Advanced Manufacturing Technology; Industrial Electrical Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Counts as a quantitative reasoning course

IM: Mechanical

7104 Industrial Maintenance Fundamentals

IND MAIN FUN

Industrial Maintenance Fundamentals introduces students to fundamental Welding and Machining skills. Studentswill be introduced to basic skills in welding, cutting and brazing, and machine tooling that are applicable in a wide variety of trade professions. Specifically, students will learn safe practices in oxy-fuel and Arc welding processes along with experience in using turning, milling, and grinding applications.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Advanced Manufacturing; Advanced Manufacturing Technology
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7261 Industrial Maintenance Capstone

IND MAINT CAP

The Industrial Maintenance Capstone course examines the procedures for the removal, repair and installation of machine components. The methods of installation, lubrication practices, and maintenance procedures for industrial machinery are analyzed. Additionally the course may cover the mechanical components and electrical drives in a complex mechatronic system. By understanding the inner workings of the complete system, students will learn and apply troubleshooting strategies to identify, localize and (where possible) to correct malfunctions. Preventive maintenance of mechanical elements and electrical drives as well as safety issues within the system will be discussed. This course will use lecture, lab, online simulation and programming to prepare students for C-210 Mechanical Power Systems I Certification through Smart Automation Certification Alliance (SACA).

- Recommended Grade(s): 11, 12

- Required Prerequisites: Principles of Advanced Manufacturing; Advanced Manufacturing Technology; Industrial Maintenance Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Counts as a quantitative reasoning course

Precision Machinging

7109 Principles of Precision Machining

PRIN PREC MACH

Principles of Precision Machining will provide students with a basic understanding of the processes used to produce industrial goods. Classroom instruction and labs will focus on shop safety, measurement, layout, blueprint reading, shop math, metallurgy, basic hand tools, milling, turning, grinding, and sawing operations. This course prepares the student for the optional National Institute for Metalworking Skills (NIMS) Measurement, Materials, & Safety certification that may be required for college dual credit.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Advanced Manufacturing
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7105 Precision Machining Fundamentals

MACH FUN

Precision Machining Fundamentals will build a foundation in conventional milling and turning. Students will be instructed in the classroom on topics of shop safety, theory, industrial terminology, and calculations. Lab work will consist of the setup and operation of vertical and/or horizontal milling machines and engine lathes. This course prepares the student for the optional National Institute for Metalworking Skills (NIMS) Milling I certification that may be required for college dual credit.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Precision Machining
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Qualifies as a quantitative reasoning course
- It is recommended that Precision Machining program of study be taught in a 2-3 period block of time. VU dual credit requires that Precision Machining Fundamentals and Advanced Precision Machining be completed concurrently

7107 Advanced Precision Machining

PREC MACH

Advanced Precision Machining will build upon the Turning and Milling processes learned in Precision Machining Fundamentals and will build a foundation in abrasive process machines. Students will be

instructed in the classroom on topics of shop safety, theory, industrial terminology, and calculations associated with abrasives. Lab work will consist of the setup and operation of bench grinders and surface grinders. Additionally students will be introduced to Computerized Numeric Controlled (CNC) setup, operations and programming. This course prepares the student for the optional National Institute for Metalworking Skills (NIMS) Grinding I certification that may be required for college dual credit.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Precision Machining; Precision Machining Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Qualifies as a quantitative reasoning course
- It is recommended that Precision Machining program of study be taught in a 2-3 period block of time. VU dual credit requires that Precision Machining Fundamentals and Advanced Precision Machining be completed concurrently

7219 Precision Machining Capstone

PREC MACH CAP

Precision Machining Capstone is an in-depth study of skills learned in Precision Machining I, with a stronger focus on CNC setup/operation/programming. Students will be introduced to two axis CNC lathe programming and three axis CNC milling machine programming. Develops the theory of programming in the classroom with applications of the program accomplished on industry-type machines. Studies terminology of coordinates, cutter paths, angle cutting, and linear and circular interpolation. Classroom activities will concentrate on precision set-up and inspection work, as well as machine shop calculations. Students will develop skills in advanced machining and measuring parts involving tighter tolerances and more complex geometry. A continued focus on safety will also be presented.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Precision Machining; Precision Machining Fundamentals; Advanced Precision Machining
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as a quantitative reasoning course

<u>Welding Technology</u>

7110 Principles of Welding Technology

PRIN WEL TCH

Principles of Welding Technology includes classroom and laboratory experiences that develop a variety of skills in oxy-fuel cutting and basic welding. This course is designed for individuals who intend to make a career as a Welder, Technician, Designer, Researcher, or Engineer. Emphasis is placed on safety at all times. OSHA standards and guidelines endorsed by the American Welding Society (AWS) are used. Instructional activities emphasize properties of metals, safety issues, blueprint reading, electrical principles, welding symbols, and mechanical drawing through projects and exercises that teach students how to weld and be prepared for postsecondary and career success.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Advanced Manufacturing
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7111 Shielded Metal Arc Welding

SHLD MAW

Shielded Metal Arc Welding involves the theory and application of the Shielded Metal Arc Welding process. Process theory will include basic electricity, power sources, electrode selection, and all aspects pertaining to equipment operation and maintenance. Laboratory welds will be performed in basic weld joints with a variety of electrodes in the flat, horizontal and vertical positions. Emphasis will be placed on developing the basic skills necessary to comply with AWS industry standards.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Welding Technology
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7101 Gas Welding Processes

GAS WEL PRC

Gas Welding Processes is designed to cover the operation of Gas Metal Arc Welding (MIG) equipment. This will include all settings, adjustments and maintenance needed to weld with a wire feed system. Instruction on both short-arc and spray-arc transfer methods will be covered. Tee, lap, and open groove joints will be done in all positions with solid, fluxcore, and aluminum wire. Test plates will be made for progress evaluation. Schools may choose to offer the course as a comprehensive MIG Welding course or a combination of introductory MIG and TIG Welding operations.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Welding Technology
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools may choose to cover both introductory MIG and TIG Welding. This configuration is available for dual credit through ITCC.

7226 Welding Technology Capstone

WELD TECH CAP

The Welding Technology Capstone course builds upon the knowledge and skills developed in Welding Fundamentals, Shielded Metal Arc Welding, and Gas Metal Arc Welding by developing advanced welding skills in Gas Tungsten Arc Welding (TIG), Pipe Welding, and Fabrication. As a capstone course, students should have the opportunity to apply their knowledge and use skills through an intensive work-based learning experience.

- Recommended Grade(s): 11, 12

- Required Prerequisites: Principles of Welding Technology; Shielded Metal Arc Welding; Gas Welding Processes
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

Agriculture, Food and Natural Resources

5056 Introduction to Agriculture, Food, and Natural Resources

INT AGFNR

Introduction to Agriculture, Food and Natural Resources is a two semester course that is highly recommended as a prerequisite to and as a foundation for all other agricultural classes. Through hands-on learning activities, students are encouraged to investigate areas of agriculture. Students are introduced to the following areas of agriculture: animal science, plant and soil science, food science, horticultural science, agricultural business management, natural resources, agriculture power, structure, and technology, careers in agriculture, leadership, and supervised agricultural experience. An activity and project-based approach is used along with team building to enhance the effectiveness of the student learning activities.

- Recommended Grade(s): 9
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5228 Supervised Agricultural Experience (SAE)

SAE

Supervised Agricultural Experience (SAE) is designed to provide students with opportunities to gain experience in the agriculture field(s) in which they are interested. Students will experience and apply what is learned in the classroom, laboratory and training site to real-life situations with a standards-based plan for learning. Students work closely with their agriculture teacher(s), parents and/or employers to get the most out of their SAE program. This course can be offered each year as well as during the summer session. Curriculum content and competencies need to be varied so that school year and summer session experiences are not duplicative.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 1 semester course, 1 credit per semester, 8 credits maximum
- Counts as a directed elective or elective for all diplomas.
- Curriculum content and standards-based plan for learning should not be duplicated when this course is taken for multiple semesters.

6130 Advanced Career & Technical Education, College Credit: Agriculture

ADV CTE CC AG

Advanced Career and Technical Education, College Credit is a course title covering any CTE advanced course offered for credit by an accredited post-secondary institution through an adjunct agreement with a secondary school. The intent of this course is to allow students to earn college credit for courses with content that goes beyond that currently approved for high school credit. This course may be used for any dual enrollment course, including a joint program of study involving a postsecondary partnership.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: CTE courses that would help prepare the student for success in this area.
- Credits: 1 semester course, up to 3 credits per semester, may be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- A student should earn at least 3 postsecondary credits for each high school credit. Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

6150 Agriculture: Special Topics

AG ST

Agriculture: Special Topics is an extended learning experience designed to address the advancement and specialization of careers within the career cluster through the provision of a specialized course for a specific workforce need in the school's region. The learning experience is at a qualified site, and is designed to give the student the opportunity to learn and practice technical skills; while working under the direction of the appropriately licensed professional. Throughout the course, students will focus on learning about employment opportunities and obtaining the knowledge, skills and attitudes essential for success in specific occupations. Course standards and curriculum must be tailored to the specific profession, preparing students to advance in this career field, and where applicable, provide students with opportunities for certification or dual credit. Participation in a related CTSO encourages the development of leadership, communication and career related skills, and opportunities for community service.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Agriculture, Food, and Natural Resources; CTE courses that would help prepare the student for success in this area.
- Credits: 1 semester course, up to 3 credits per semester, may be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

7117 Principles of Agriculture

PRIN AG

Principles of Agriculture is a two-semester course that will cover the diversity of the agricultural industry and agribusiness concepts. Students will develop an understanding of the role of agriculture in the United States and globally. Students will explore Agriculture, Food, and Natural Resource (AFNR) systems related to the production of food, fiber and fuel and the associated health, safety and environmental management systems. Topics covered in the course range from animals, plants, food, natural resources, ag power, structures and technology, and agribusiness. Participation in FFA and Supervised Agricultural Experiences (SAE) will be an integral part of this course in order to develop leadership and career ready skills.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective credits for all diplomas

7262 Agricultural Research Capstone

AG RES CAP

Agricultural Research Capstone course includes extended laboratory, field, and literature investigations in one or more specialized agricultural science disciplines, such as animal, plant, food, natural resources, biotechnology, engineering, etc. Students enrolled in this course will apply scientific applications, concepts, principles, and design process to solve complex, real-world issues in agriculture. Students will become familiar with laboratory procedures used in an educational, research, or industrial setting. Students will complete an end-of-course project and presentation, such as a scientific research paper, agriscience fair project, or some other suitable presentation of their findings.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Any Agriculture Concentrator Sequence
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits max
- Counts as a directed elective or elective credits for all diplomas
- Counts as a quantitative reasoning course.

7238 Agribusiness Capstone

AG BUS CAP

Agribusiness Management Capstone course is a two semester course that introduces students to the Principles of agribusiness management and leadership from a local and global perspective, with the utilization of technology. The course will help students build a strong knowledge base of the agribusiness industry as they study agribusiness types, communications, agricultural law, leadership, and teamwork, ethics, and agricultural economics. Additionally, students will understand the role of selling in the agricultural economy, stressing the points and terminology necessary in today's agriculture. Students will demonstrate principles and techniques for planning, development, application and management of agribusiness systems through project-based learning and a supervised agriculture experience (work-based learning) programs.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Any Agriculture Concentrator Sequence
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits max
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course

Ag Mechanical and Engineering

5088 Agriculture Power, Structure, and Technology

AG POW

Agriculture Power, Structure and Technology is a two semester, lab intensive course in which students develop an understanding of basic principles of tool selection, operation, maintenance, and management of agricultural equipment in concert with the utilization of technology. Topics covered include: safety, problem-solving/troubleshooting, electricity, plumbing, concrete, carpentry, metal technology, engines, emerging technologies, leadership development, supervised agricultural experience, and career opportunities in the area of agriculture power, structure, and technology.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Agriculture*
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- *Principles course is not required until the 2024-2025 school year because this course is included in Perkins V pathways. Students in the class of 2025 and beyond must complete the course to earn concentrator status.

7112 Agriculture Structures Fabrication and Design

AG ST FAB DES

Agricultural Structures Fabrication and Design is a two-semester course that focuses on metal work, and agricultural structures. This course will allow students to develop skills in welding and metalworking, construction, fabrication, machine components and design while incorporating the engineering design process. Students will also cover safety topics for each area while demonstrating appropriate health and safety standards.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Agriculture*
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective credits for all diplomas
- Counts as a quantitative reasoning course
- *Principles course is not required until 24-25 school year because this course is included in Perkins V pathways. Students in the class of 2025 and beyond must complete the course to earn concentrator status.

7228 Agriculture Mechanization and Technology Capstone

AG MECH CAP

The Agriculture Mechanization and Technology Capstone course builds upon the knowledge and skills developed in the Principles, Ag Power, Structures and Technology, Agricultural Structures Fabrication and Design courses by developing advanced skills that students can apply to the field. Students enrolled in this course will participate in lab activities involving agricultural equipment such as fueled power engines, electrical motors, pneumatic and hydraulic systems, etc. Students will be instructed on the operation, maintenance, repair, engineering and design of the agricultural mechanics and technology systems. As a capstone course, students should have the opportunity to apply their knowledge and use skills through an intensive work-based learning experience.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Ag Power, Structures and Technology; Ag Structures Fabrication and Design; (Earn concentrator status in the Precision Ag program of study)
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits max
- Counts as a directed elective or elective credits for all diplomas
- Counts as a quantitative reasoning course

Agriscience

5008 Animal Science

ANML SCI

Animal Science is a two-semester course that provides students with an overview of the animal agriculture industry. Students participate in a large variety of activities and laboratory work including real and simulated animal science experiences and projects. All areas that the students study may be applied to both large and small animals. Topics to be covered in the course include: history and trends in animal agriculture, laws and practices relating to animal agriculture, comparative anatomy and physiology of animals, biosecurity threats and interventions relating to animal and human safety, nutrition, reproduction, careers, leadership, and supervised agricultural experiences relating to animal agriculture.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Agriculture*
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Fulfills a science course requirement for all diplomas
- Fulfills a physical science requirement for General Diploma
- *Principles course is not required until the 2024-2025 school year because this course is included in Perkins V pathways. Students in the Class of 2025 and beyond must complete the course to earn concentrator status.

5170 Plant and Soil Science

PLT SL SCI

Plant and Soil Science a two semester course that provides students with opportunities to participate in a variety of activities including laboratory and field work. Coursework includes hands-on learning activities that encourage students to investigate areas of plant and soil science. Students are introduced to the following areas of plant and soil science: plant growth, reproduction and propagation,

photosynthesis and respiration, diseases and pests of plants and their management, biotechnology, the basic components and types of soil, soil tillage, and conservation.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Agriculture*
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Fulfills a science course requirement for all diplomas
- Fulfills a Physical Science requirement for the general diploma
- *Principles course is not required until the 2024-2025 school year because this course is included in Perkins V pathways. Students in the Class of 2025 and beyond must complete the course to earn concentrator status.

5074 Advanced Life Science, Plants and Soils (L)

ALS PLT/SL

Advanced Life Science: Plants and Soils is a two semester course that provides students with opportunities to participate in a variety of activities including laboratory work. Students study concepts, principles, and theories associated with plants and soils. Knowledge gained enables them to better understand the workings of agricultural and horticultural practices. They recognize how plants are classified, grow, function, and reproduce. Students explore plant genetics and the use of plants by humans. They examine plant evolution and the role of plants in ecology. Students investigate, through laboratories and fieldwork, how plants function and how soil influences plant life.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Agriculture*
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources; Plant and Soil Science; Biology; Chemistry
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Fulfills a science requirement for all diplomas
- Counts as a quantitative reasoning course
- Counts as an elective or directed elective for all diplomas.
- *Principles course is not required until the 2024-2025 school year because this course is included in Perkins V pathways. Students in the Class of 2025 and beyond must complete the course to earn concentrator status.

5072 Advanced Life Science: Foods

ALS FOODS

Advanced Life Science: Foods is a course that provides students with opportunities to participate in a variety of activities including laboratory work. This is a standards-based, interdisciplinary science course that integrates biology, chemistry, and microbiology in the context of foods and the global food industry. Students enrolled in this course formulate, design, and carry out food-base laboratory and field investigations as an essential course component. Students understand how biology, chemistry, and physics principles apply to the composition of foods, the nutrition of foods, food and food product development, food processing, food safety and sanitation, food packaging, and food storage. Students

completing this course will be able to apply the principles of scientific inquiry to solve problems related to biology, physics, and chemistry in the context of highly advanced industry applications of foods.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Agriculture*
- Recommended Prerequisites: Chemistry; Biology; Introduction to Agriculture, Food and Natural Resources; Food Science; Nutrition and Wellness; Advanced Nutrition and Wellness
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Fulfills a science requirement for all diplomas
- Counts as a quantitative reasoning course
- Counts as an elective or directed elective for all diplomas.
- *Principles course is not required until the 2024-2025 school year because this course is included in Perkins V pathways. Students in the Class of 2025 and beyond must complete the course to earn concentrator status.

5070 Advanced Life Science, Animals (L)

ALS ANIML

Advanced Life Science: Animals is a two-semester course that provides students with opportunities to participate in a variety of activities including laboratory work. Students will explore concepts related to history and trends in animal agriculture as related to animal welfare, husbandry, diseases and parasites, laws and practices relating to handling, housing, environmental impact, global sustainable practices of animal agriculture, genetics, breeding practices, biotechnology uses, and comparative knowledge of anatomy and physiology of animals used in animal agriculture.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Agriculture*; or Principles of Veterinary Science*
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources; Animal Science; Biology; Chemistry; Integrated Chemistry Physics
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Fulfills a science requirement for all diplomas
- Counts as a quantitative reasoning course
- Counts as an elective or directed elective for all diplomas.
- *Principles course is not required until the 2024-2025 school year because this course is included in Perkins V pathways. Students in the Class of 2025 and beyond must complete the course to earn concentrator status.

5102 Food Science

FOOD SCI

Food Science is a two semester course that provides students with an overview of food science and the role it plays in the securing of a safe, nutritious, and adequate food supply. A project-based approach is utilized in this course, along with laboratory, team building, and problem solving activities to enhance student learning. Students are introduced to the following areas of food science: food processing, food chemistry and physics, nutrition, food microbiology, preservation, packaging and labeling, food commodities, food regulations, issues and careers in the food science industry.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Agriculture*

- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas.
- Fulfills a Life Science or Physical Science requirement for the General Diploma
- *Principles course is not required until the 2024-2025 school year because this course is included in Perkins V pathways. Students in the Class of 2025 and beyond must complete the course to earn concentrator status.

7230 Agriculture Biotechnology Capstone

AG BIO CAP

Ag Biotechnology is a two-semester course that concentrates on the applications of biotechnology in the agricultural industry. Students enrolled in this course will apply the use of living organisms to solve problems or make useful products. Students will become familiar with laboratory procedures such as cell/tissue culture, micropropagation, electrophoresis, etc. Students enrolled in this course will be required to use data and scientific techniques to solve problems concerning living organisms and will demonstrate competence in the application of principles and techniques for the development, application and management of biotechnology within the agriculture industry. As a capstone course, students should have the opportunity to apply their knowledge and use skills through an intensive work-based learning experience.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Agriscience Concentrator Sequence
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits max
- Counts as a Directed Elective or Elective for all diplomas
- Counts as a science credit

Horticulture

5132 Horticultural Science

HORT SCI

Horticulture Science is a two semester course that provides students with a background in the field of horticulture. Coursework includes hands-on activities that encourage students to investigate areas of horticulture as it relates to the biology and technology involved in the production, processing, and marketing of horticultural plants and products. Students are introduced to the following areas of horticulture science: reproduction and propagation of plants, plant growth, growth-media, management practices for field and greenhouse production, marketing concepts, production of plants of local interest, greenhouse management, floral design, and pest management. Students participate in a variety of activities including extensive laboratory work usually in a school greenhouse.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Agriculture*
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas.
- Fulfills a Life Science or Physical Science requirement for the General Diploma

- *Principles course is not required until the 2024-2025 school year because this course is included in Perkins V pathways. Students in the Class of 2025 must complete this course to earn Concentrator Status.

7114 Greenhouse and Soilless Production

GRN S PROD

Greenhouse and Soilless Production is a two-semester course that provides an overview of structural designs and uses of enclosed structures (greenhouses) to grow various plants and food. The course will focus on discussing different types of enclosed structures, management systems, and growing systems used to produce plants and food. The course will also present an overview of soilless growing systems such as hydroponics, aquaponics, aeroponics and fogponics. Students will utilize the school greenhouse as part of this course.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Agriculture
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective credits for all diplomas

7232 Horticulture Capstone

HORT CAP

The Horticulture Capstone course builds upon the knowledge and skills developed in the Principles, Horticultural Science, and Greenhouse and Soilless Production courses by developing advanced skills that students can apply to the field. As a capstone course, students should have the opportunity to apply their knowledge and use skills through an intensive work-based learning experience.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Agriculture; Horticultural Science; Greenhouse and Soilless Production
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits max
- Counts as a directed elective or elective credits for all diplomas
- Counts as a science credit

<u>Landscaping</u>

7115 Landscape and Turf Management

LAND TUR MAN

Landscape and Turf Management is a two-semester course that provides the student with an overview of the many career opportunities in the diverse field of landscape and turf management. Students are introduced to the procedures used in the planning and design of a landscape using current technology practices, the principles and procedures involved with landscape construction, the determination of maintenance schedules, communications, and management skills necessary in landscaping operations, and the care and use of equipment utilized by landscapers. Upon completion of the program, students have the opportunity to become Indiana Landscape Industry Certified through a state approved program.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Agriculture
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective credits for all diplomas

7234 Landscape Management Capstone

LANDSC MGMT CAP

The Landscape Capstone course builds upon the knowledge and skills developed in the Principles, Horticultural Science and Landscape and Turf Management courses by developing advanced skills that students can apply to the field. As a capstone course, students should have the opportunity to apply their knowledge and use skills through an intensive work-based learning experience.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Agriculture; Horticultural Science; Landscape and Turf Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits max
- Counts as a directed elective or elective credits for all diplomas
- Counts as a quantitative reasoning course

<u>Precision Agriculture</u>

7116 Precision Agriculture

PREC AG

Precision Agriculture describes the purpose and concepts of precision agriculture and precision farming through classroom and lab-based instruction. It involves understanding and operation of the various precision agriculture tools including GPS, GIS, and VRT. Students will learn how to collect data, analyze data and use the information to make decisions. Provides an understanding and justifications that demonstrate the economic and environmental benefits of precision agriculture. The Precision Agriculture course also incorporates the use of UAVs. Students will demonstrate UAV competency and handling in order to achieve the Part 107 UAS certification.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Agriculture
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective credits for all diplomas

7113 Crop Management

CROP MAN

Crop Management will provide an understanding of plant nutrient requirements and how to provide for those needs to achieve efficient crop production through classroom and lab-based instruction. Students will understand proper fertilizer materials, application methods and techniques. Instruction on soil analysis by demonstrating proper soil testing techniques which will be used to create fertility plans for

proposed crops. Integrated pest management and the evaluation of various pest controls with minimal impact on the environment will also be an emphasis of the course.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Agriculture
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective credits for all diplomas
- Counts as a science credit

7236 Precision Agriculture Capstone

PREC AG CAP

The Precision Agriculture Capstone course builds upon the knowledge and skills developed in the Principles, Precision Agriculture and Crop Management by developing advanced skills that students can apply to the field. As a capstone course, students should have the opportunity to apply their knowledge and use skills through an intensive work-based learning experience.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Agriculture; Precision Agriculture; Crop Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits max
- Counts as a directed elective or elective credits for all diplomas

<u>Natural Resources</u>

5180 Natural Resources

NAT RSS

Natural Resources is a two semester course that provides students with a background in environmental science and conservation. Course work includes hands-on learning activities that encourage students to investigate areas of environmental concern. Students are introduced to the following areas of natural resources: soils, the water cycle, air quality, outdoor recreation, forestry, minerals, interrelationships between humans and natural systems, wetlands, wildlife, safety, careers, leadership, and supervised agricultural experience programs.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Agriculture*
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as an elective or directed elective for all diplomas.
- Fulfills a science requirement for all diplomas.
- *Principles course is not required until the 2024-2025 school year because this course is included in Perkins V pathways. Students in the Class of 2025 and beyond must complete the course to earn Concentrator status.

7270 Forestry and Wildlife Management

FOR WILF MGMT

Forestry and Wildlife Management is a two semester course that provides students with opportunities to participate in a variety of activities including laboratory work. Students will explore concepts related to environmental and ecological impacts, forestry management, timber harvesting, tree production, and wood utilization, as well as environmental issues and career exploration

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Agriculture
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Counts as a science credit

7271 Soil and Water Management

SOIL WATR MGMT

Soil and Water Management is a two semester course that provides students with opportunities to participate in a variety of activities including laboratory work. Students will explore concepts related to geological information system mapping (GIS), soil and land use, water and aquatic ecology, as well as environmental issues and career exploration

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Agriculture
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Counts as a science credit

5229 Sustainable Energy Alternatives

SUS NRG

Sustainable Energy Alternatives broadens a student's understanding of environmentally friendly energies. In this course students will use a combination of classroom, laboratory, and field experiences to analyze, critique, and design alternative energy systems. Class content and activities center on renewability and sustainability for our planet. Topics covered in this course include the following types of alternative energies: solar, wind, geothermal, biomass and emerging technologies. Leadership development, supervised agricultural experiences, and career exploration opportunities are explored in the field. Sustainable energy is also included.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Agriculture*
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Fulfills a science course requirement for all diplomas
- Counts as a directed elective or elective for all diplomas
- *Principles course is not required until the 2024-2025 school year because this course is included in Perkins V pathways. Students in the class of 2025 and beyond must complete the course to earn Concentrator Status.

<u>Veterinary Science</u>

7280 Principles of Veterinary Science

PRIN VET SCI

Principles of Veterinary Science is a two-semester course that provides students with an overview of the small and large animal veterinary industry which includes companion, food, and exotic animals. Principles of Veterinary Science will cover skills common to specific veterinary career topics such as animal care, veterinary assistant, veterinary technician, and veterinarian. Students will learn foundational veterinary knowledge for large and small animals which includes practical lab skills and common office practices.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7281 Veterinary Science

VET SCI

Veterinary Science is a two-semester course that provides students with opportunities to participate in a variety of activities including laboratory work. Students will explore concepts related to medical terminology, laboratory procedures, clinical examination procedures, principles of animal diseases, as well as work in veterinary clinic management and veterinary law and ethics.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Veterinary Science
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7282 Veterinary Science Capstone

VET SCI CAP

Veterinary Science Capstone is a two-semester course that builds upon the knowledge and skills developed in the animal and veterinary courses by developing advanced skills that students can apply to the field. As a capstone course, students should have the opportunity to apply their knowledge and use skills through an intensive work-based learning experience. Students will explore concepts related to pharmacy and pharmacology, medical math, animal nursing, radiology and ultrasound imaging, surgical preparation and assisting

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Veterinary Science; Advanced Life Science: Animals; Veterinary Science
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

Architecture and Construction

4792 Introduction to Construction

INT CONST

Introduction to Construction is a course that will offer hands-on activities and real-world experiences related to the skills essential in residential, commercial and civil building construction. During the course students will be introduced to the history and traditions of construction trades. The student will also learn and apply knowledge of the care and safe use of hand and power tools as related to each trade. In addition, students are introduced to blueprint reading, applied math, basic tools and equipment, and safety. Students will demonstrate building construction techniques, including concrete and masonry, framing, electrical, plumbing, dry walling, HVAC, and painting as developed locally in accordance with available space and technologies. Students learn how architectural ideas are converted into projects and how projects are managed during a construction project in this course. Students study construction technology topics such as preparing a site, doing earthwork, setting footings and foundations, building the superstructure, enclosing the structure, installing systems, finishing the structure, and completing the site. Students also investigate topics related to the purchasing and maintenance of structures, special purpose facilities, green construction and construction careers.

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5654 Architecture and Construction: Special Topics

ARCH CNS ST

Architecture and Construction: Special Topics is an extended learning experience designed to address the advancement and specialization of careers within the career cluster through the provision of a specialized course for a specific workforce need in the school's region. The learning experience is at a qualified site, and is designed to give the student the opportunity to learn and practice technical skills while working under the direction of the appropriately licensed professional. Throughout the course, students will focus on learning about employment opportunities and obtaining the knowledge, skills and attitudes essential for success in specific occupations. Course standards and curriculum must be tailored to the specific profession, preparing students to advance in this career field, and where applicable, provide students with opportunities for certification or dual credit. Participation in a related CTSO encourages the development of leadership, communication and career related skills, and opportunities for community service.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Construction
- Credits: 1 semester course, up to 3 credits per semester, May be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

6132 Advanced Career & Technical Education, College Credit: Architecture and Construction

ADV CTE CC AC

Advanced Career and Technical Education, College Credit is a course title covering any CTE advanced course offered for credit by an accredited post-secondary institution through an adjunct agreement with a secondary school. The intent of this course is to allow students to earn college credit for courses with content that goes beyond that currently approved for high school credit. This course may be used for any dual enrollment course, including a joint program of study involving a postsecondary partnership.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: CTE courses that would help prepare the student for success in this area.
- Credits: 1 semester course, up to 3 credits per semester, May be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- A student should earn at least 3 postsecondary credits for each high school credit. Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

Construction Trades:

7130 Principles of Construction Trades

PRIN CON TR

Principles of Construction Trades prepares students with the basic skills needed to continue in a construction trade field. Topics will include an introduction to the types and uses for common hand and power tools, learn the types and basic terminology associated with construction drawings, and basic safety. Additionally students will study the roles of individuals and companies within the construction industry and reinforce mathematical and communication skills necessary to be successful in the construction field.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

CT: Carpentry

7123 Construction Trades: General Carpentry

CON TRD GC

Construction Trades: General Carpentry builds upon the skills learned in the Principles of Construction Trades and examines the basics of framing. This includes studying the procedures for laying out and constructing floor systems, wall systems, ceiling joist and roof framing, and basic stair layout. Additionally, students will be introduced to building envelope systems.

- Recommended Grade(s): 10, 11, 12

- Required Prerequisites: Principles of Construction Trades; or Principles of Architecture, Engineering and Construction
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7122 Construction Trades: Framing and Finishing

CON TRD FR FIN

Construction Trades: Framing and Finishing prepares students with advanced framing skills along with interior and exterior finishing techniques. Topics include roofing applications, thermal and moisture protection, exterior finishing, cold-formed steel framing, drywall installation and finishing, doors and door hardware, suspended ceilings, window, door, floor, and ceiling trim, and cabinet installation.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Construction Trades; Construction Trades: General Carpentry
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7390 Construction Trades: Masonry Fundamentals

MASON FUND

The Masonry Fundamentals course covers foundations of completing masonry work including safety, tools, and the basics of brick and block construction. After mastering the basics, students will be introduced to advanced masonry techniques including control and expansion joints, corners and intersections. Students will also understand the impacts of climate on masonry work and how to inspect masonry work for quality control.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Construction Trades; Construction Trades: General Carpentry
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7242 Construction Trades Capstone

CSTR TR CAP

The Construction Trades Capstone course covers the basics of electricity and working with concrete. Electrical topics include the National Electric Code, electrical safety, electrical circuits, basic electrical construction drawings, and residential electrical services. Students may also gain an understanding of concrete properties, foundations, slab-on-grades, and vertical and horizontal formwork. The course prepares students for the NCCER Carpentry Forms Level 3 and Electrical Level 1certificates.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Construction Trades; Construction Trades: General Carpentry; and Construction Trades: Framing and Finishing

- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Counts as a quantitative reasoning course

7391 Masonry Capstone

MASON CAP

The Masonry Capstone course builds upon the basics learned in the Masonry Fundamentals course. Advanced topics include construction of specialty techniques like sound-barrier walls, arches, acid and refractory brick, and glass block. Students will also learn the advantages and process of repairing and restoring masonry work. The course may be aligned to a pre-apprenticeship program that will lead to direct admittance into a full registered apprenticeship program. The program includes approximately 300 hours of instruction with on-the-job training.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Construction Trades; Construction Trades: General Carpentry; and Construction Trades: Masonry Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

<u>CT: Electrical</u>

7124 Electrical Fundamentals

ELEC FUN

This course covers NCCER Electrical Level 1. Its modules cover topics such as orientation to the electrical trade, electrical safety, introduction to electrical circuits, electrical theory, introduction to the National Electrical Code, device boxes, hand bending, raceways and fittings, conductors and cables, basic electrical construction drawings, residential electrical services, and electrical test equipment. The NCCER Electrical Level 1 certificate and wallet card will also be awarded upon successful completion of this course.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Construction Trades
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7119 Advanced Electrical

ADV ELEC

Advanced Electrical covers topics such as alternating current, motors: theory and application, electric lighting, conduit bending, and pull and junction boxes. The second part of the course will cover topics such as conductor installations, cable tray, conductor terminations and splices, grounding and bonding, circuit breakers and fuses, control systems and fundamental concepts. Students will be ready to complete the NCCER Electrical Level 2 certificate upon successful completion of the course.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Construction Trades; Electrical Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course

7263 Construction Trades Electrical Capstone

CT ELEC CAP

Construction Trades Electrical Capstone builds upon the skills learned in Electrical Fundamentals and Advanced Electrical. Topics include load calculations – branch and feeder circuits, conductor selection and calculations, practical applications of lighting. This course will also cover commercial electrical services including distribution equipment, transformers, and voice, data and video. Completion of this course will prepare students for the NCCER Electrical Level 3 certificate. Students may also complete an Ivy Tech CT by completing coursework in general carpentry.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Construction Trades; Electrical Fundamentals; Advanced Electrical
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Counts as a quantitative reasoning course

<u>Building Maintenance</u>

7285 Building and Facilities Maintenance Fundamentals

BLDG FAC MAINT FUND

Building and Facilities Maintenance Fundamentals prepares students to complete basic maintenance tasks like minor construction repairs and be able to repair and/or replace various building materials including flooring, wall covering, hardware, lighting and plumbing fixtures.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Construction Trades
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7286 Advanced Building and Facilities Maintenance

ADV BLDG FAC MAINT

Advanced Building and Facilities Maintenance prepares students to complete more advanced repairs involving a buildings mechanical system including electrical, HVAC, and plumbing.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Construction Trades; Building and Facilities Maintenance Fundamentals

- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7287 Building and Facilities Maintenance Capstone

BLDG FAC MAINT CAP

Building and Facilities Maintenance Capstone will continue to develop students maintenance skills ideally through a work-based learning experience. Students will also explore additional topics like processing work orders, fair housing regulation compliance, environmental and regulation compliance, reporting and documentation of maintenance activities, and implementation of a preventive maintenance schedule.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Construction Trades; Building and Facilities Maintenance Fundamentals; and Advanced Building and Facilities Maintenance
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

<u>Civil Construction</u>

7121 Civil Construction Fundamentals

CIV CON FUN

Civil Construction Fundamentals covers the first half of NCCER Heavy Highway Construction Level 1. Its modules cover topics such as orientation to the trade, identification of equipment used in heavy highway construction, heavy highway construction safety, work-zone safety, soils, site work, excavation math, and interpreting civil drawings. The NCCER Heavy Highway Construction Level 1 certificate will not be awarded until the student successfully completes both this course and Advanced Civil Construction.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Construction Trades
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7118 Advanced Civil Construction

ADV CIV CON

Advanced Civil Construction builds upon the knowledge and skills learned in the fundamentals course and covers the second half of NCCER Heavy Highway Construction Level 1. Its modules cover topics such as rigging practices, crane safety and emergency procedures, basic principles of cranes, and crane communications. The NCCER Heavy Highway Construction Level 1 certificate and wallet card will also be awarded upon successful completion of this course.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Construction Trades; Civil Construction Fundamentals
- Recommended Prerequisites: none

- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7240 Civil Construction Capstone

CIV CSTR CAP

The Heavy Highway Capstone course covers topics such as introduction to earthmoving, finishing and grading, trenching and excavating, plant operations, paving, horizontal formwork, and vertical formwork. Additionally, students will learn skills associated with working with concrete and bridge construction. The course prepares students for the NCCER Level 2 certificate.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Construction Trades; Civil Construction Fundamentals; and Advanced Civil Construction
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

<u>Heavy Equipment Operator</u>

7290 Heavy Equipment Fundamentals

HVY EQUIP FUND

Heavy Equipment Fundamentals orients students to the Heavy Equipment industry and the basics operational techniques required to be a Heavy Equipment Operator. Topics include safety, identification of heavy equipment, utility tractors, earthmoving and grades. This course prepares students for the NCCER Heavy Equipment Level 1 certification.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Construction Trades
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7291 Advanced Heavy Equipment Operations

ADV HVY EQUIP OPER

Advanced Heavy Equipment Operations builds upon the earthmoving knowledge learned in Heavy Equipment Fundamentals. Students will gain the necessary skills and knowledge regarding soils, excavation math, and interpreting Civil Drawings to be able to prepare a site. Additionally students will learn to operate scrapers used in site preparation. This course will prepare students for the first half of the NCCER Heavy Equipment Operations Level 2.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Construction Trades; Heavy Equipment Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7292 Heavy Equipment Capstone

HVY EQUIP CAP

Heavy Equipment Capstone will cover the second part of NCCER Heavy Equipment Level 2 and all of Level 3. Students will learn to operate Loaders, Skid Steers, Rough Terrain Forklifts, Backhoes and Dozers.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Construction Trades; Heavy Equipment Fundamentals; Advanced Heavy Equipment Operations
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a directed elective or elective for all diplomas

Heating, Ventilation, and Air Conditioning

7131 Principles of Heating, Ventilation, and Air Conditioning (HVAC)

PRN HVAC

Principles of Heating, Ventilation and Air Conditioning (HVAC) covers many of the topics needed for students to be successful in the mechanical construction industry. Its modules include history of HVAC industry, OSHA 10-hour construction industry training, communication and customer service skills. This course will also cover basic electricity concepts.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Construction
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7125 HVAC Fundamentals

HVAC FUN

HVAC Fundamentals introduces fundamentals applicable to the heating and refrigeration phases of air conditioning. Includes types of units, parts, basic controls, functions, and applications. Emphasizes practices, tool and meter use, temperature measurement, heat flow, the combustion process and piping installation practices. Covers the basic sequence of operation for gas, oil and electric furnaces. Introduction to compression systems used in mechanical refrigeration including the refrigeration cycle and system components. Introduces safety procedures, proper use of tools used to install and service refrigeration equipment, refrigerant charging and recovery, system evacuation, calculating superheat and subcooling and using a refrigerant temperature/pressure chart. This course will use lecture, lab and online simulation to prepare students for the nationally recognized certification exam as part of the outcome assessment learning objectives.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of HVAC
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7126 HVAC Service

HVAC SER

HVAC Service continues the study of air conditioning and refrigeration along with the procedures used to analyze mechanical and electrical problems encountered when servicing heating systems. Students will better understand compressors, metering devices, system recharging, refrigerant recovery, basics of motor types, equipment installation and troubleshooting practices as they apply to air conditioning and refrigeration systems. Additionally, students will be able to understand electrical schematics and connection diagrams, combustion testing, venting and combustion air requirements, sequence of operation, heating controls, troubleshooting techniques, installation practices, basic codes applying to furnace codes, and service procedures. This course will use lecture, lab and online simulation to prepare students for the nationally recognized certification exam as part of the outcome assessment learning objectives.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of HVAC; HVAC Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7244 HVAC Capstone

HVAC CAP

The HVAC Capstone course covers procedures used to analyze mechanical and electrical problems encountered when servicing heating systems. Topics include electrical schematics and connection diagrams, combustion testing, venting and combustion air requirements, sequence of operation, heating controls, troubleshooting techniques, installation practices, basic codes applying to furnace codes, and service procedures. Students may also have the opportunity to gain an understanding of Heat Pump Systems or to develop skills needed to fabricate and install duct work. This course will use lecture, lab and online simulation to prepare students for the nationally recognized certification exam as part of the outcome assessment learning objectives.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of HVAC; HVAC Fundamentals; HVAC Service
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Counts as a quantitative reasoning course

Plumbing and Pipefitting

7133 Principles of Plumbing and Pipefitting

PRIN PLB PIPE

Principles of Plumbing and Pipefitting covers much of the NCCER Level I curriculum for Plumbing and is a prerequisite to future plumbing courses. Its modules cover topics such as an introduction to the plumbing profession, basic safety, tools used in the plumbing trade, an introduction to plumbing drawings, and all basic skills needed to continue education in the plumbing program.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none

- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7129 Plumbing and Pipefitting Fundamentals

PLB PIPE FUN

Plumbing and Pipefitting Fundamentals will build on the knowledge and skills developed in the principles course. Students will gain a better understanding of a variety of plumbing materials and fittings. As well as focus on common plumbing installations including piping, drains, fixtures and valves.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Plumbing and Pipefitting
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7120 Advanced Plumbing and Pipefitting

ADV PLB PIPE

Advanced Plumbing and Pipefitting prepares students for more advanced installations including structural penetrations, insulations, and water heaters. Additionally, students will gain a better understanding of basic electricity and fuel systems that are required for these advanced installations.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Plumbing and Pipefitting; Plumbing and Pipefitting Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7264 Plumbing and Pipefitting Capstone

PLUMB PIPE CAP

The Plumbing and Pipefitting Capstone course competencies will be developed on an as needed basis beginning with the 2023-24 school year. The goal for this course will be to enable a student to earn at least level 3 certification or to complete one full years worth of an apprenticeship.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Construction Trades; Plumbing and Pipefitting Fundamentals; Advanced Plumbing and Pipefitting
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

<u>Architecture, Engineering, and Construction (Architectural Drafting and Design)</u>

7295 Principles of Architecture, Engineering and Construction

PRIN AEC

The Principles of Architecture, Engineering and Construction course introduces students the Architecture Engineering Construction (AEC) industry. AEC courses place an emphasis on fundamentals of construction and surveying technology, with advanced study in architectural technology and related computer modeling software. The principles course includes an introduction to architectural drafting and construction trades.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7296 Surveying

SRVY

Surveying provides an introduction and overview of the practice and profession of surveying and the applications in industry. Fundamentals of establishing control networks, closure error and coordinate computations, accuracy appraisal, mapping, and theory will be explained. Tape measures, automatic levels, total stations, and GNSS (Global Navigation Satellite System) equipment will be used to perform measurements. Maps will be produced from collected spatial data. This course involves hands-on activities that directly relate to SURV 100. Laboratories will include field work, data calculations, and map output.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Architecture, Engineering and Construction
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7389 Advanced Architectural Drafting and Design

ADV ARCH DR

Advanced Architectural Drafting and Design builds on the concepts of Principles of Architecture, Engineering and Construction and presents a history and survey of architecture with a focus on the creative design of buildings in a studio environment. This course covers site analysis, facilities programming, space planning, conceptual design, and the proper use of materials. Students will develop presentation drawings, give oral presentations, and critique works. Generation of form and space is addressed through basic architectural theory, related architectural styles, design strategies, and a visual representation of the student's design process. This course will focus on advanced Computer Aided Design (CAD) techniques using the Autodesk Revit software.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Architecture, Engineering and Construction.
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7297 Architecture, Engineering and Construction Capstone

AEC CAP

The Architecture, Engineering and Construction Capstone course builds upon what students have learned in previous program courses. Students will have the chance to study advanced architectural software, electrical wiring, and will gain an understanding of the Indiana Residential Code for One- and Two- Family Dwellings.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Architecture, Engineering and Construction; General Carpentry; and Surveying
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Counts as a quantitative reasoning course

Arts, AV Tech, and Communication

4576 Arts, AV Tech and Communication: Special Topics

AAVTC ST

Arts, AV Tech and Communication: Special Topics is an extended learning experience designed to address the advancement and specialization of careers within the career cluster through the provision of a specialized course for a specific workforce need in the school's region. The learning experience is at a qualified site, and is designed to give the student the opportunity to learn and practice technical skills; while working under the direction of the appropriately licensed professional. Throughout the course, students will focus on learning about employment opportunities and obtaining the knowledge, skills and attitudes essential for success in specific occupations. Course standards and curriculum must be tailored to the specific profession, preparing students to advance in this career field, and where applicable, provide students with opportunities for certification or dual credit. Participation in a related CTSO encourages the development of leadership, communication and career related skills, and opportunities for community service.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Communication; CTE courses that would help prepare the student for success in this area.
- Credits: 1 semester course, up to 3 credits per semester, May be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

4834 Design Fundamentals

DES FUND

Design Fundamentals introduces students to fundamental design theory. Investigations into design theory and color dynamics will provide experiences in applying design theory, ideas and creative problem solving in the area of communication technology. Student learning experiences encompass art history, art criticism, aesthetics, and production, which lead to the creation of portfolio-quality works. Students reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art in areas of communication; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Communications
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma

4790 Introduction to Communications

INT COMM

Introduction to Communications is a course designed to provide a foundational knowledge of identifying and using modern communication to exchange messages and information. This course explores the application of the tools, materials, and techniques used to design, produce, use, and assess systems of communication. Students will produce graphic and electronic media as they apply communication technologies. This course will also explore the various technical processes used to link ideas and people through the use of electronic and graphic media. Major goals of this course include an overview of communication technology; the way it has evolved, how messages are designed and produced, and how people may profit from creating information services and products. Students will explore mass media communication processes including radio and television broadcasting, publishing and printing activities, telecommunication networks, recording services, computer and data processing networks, and other related systems. Students will use the design process to solve design projects in each communication area.

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5350 Introduction to Housing and Interior Design

INT HSINT DES

Introduction to Housing and Interior Design is an introductory course essential for those students interested in academic enrichment or a career within the housing, interior design, or furnishings industry. This course addresses the selection and planning of designed spaces to meet the needs, wants, values and lifestyles of individuals, families, clients, and communities. Housing decisions, resources and options will be explored including factors affecting housing choices and the types of housing available. Developmental influences on housing and interior environments will also be considered. Basic historical architectural styling and basic furniture styles will be explored as well as basic identification of the elements and principles of design. Design and space planning involve evaluating floor plans and reading construction documents while learning to create safe, functional, and aesthetic spaces. Presentation techniques will be practiced to thoroughly communicate design ideas. Visual arts concepts including aesthetics, criticism, history and production, are addressed. Direct, concrete mathematics proficiencies will be applied. A project-based approach will be utilized requiring higher order thinking, communication, leadership and management processes as housing and interior design content is integrated into the design of interior spaces while meeting specific project criteria. This course provides the foundation for further study and careers in the architecture, construction, housing, interior design, and furnishings industries.

- Recommended Grade(s): 9,10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum

- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma

5380 Introduction to Fashion & Textiles

FSHNTX

Introduction to Fashion and Textiles is an introductory course for those students interested in academic enrichment or a career in the fashion, textile, and apparel industry. This course addresses knowledge and skills related to design, production, acquisition, and distribution in the fashion, textile, and apparel arena. The course includes the study of personal, academic, and career success; careers in the fashion, textile, and apparel industry; factors influencing the merchandising and selection of fashion, textile, and apparel goods and their properties, design, and production; and consumer skills. A project-based approach integrates instruction and laboratory experiences including application of the elements and principles of design, aesthetics, criticism, history and production; selection, production, alteration, repair, and maintenance of apparel and textile products; product research, development, and testing; and application of technical tools and equipment utilized in the industry. Direct, concrete mathematics proficiencies will be applied. Service learning and other authentic applications are strongly recommended. This course provides the foundation for continuing and post-secondary education in fashion, textile, and apparel-related careers.

- Recommended Grade(s): 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma

6134 Advanced Career & Technical Education, College Credit: Arts, AV Tech and Comm

ADV CTE CC AATC

Advanced Career and Technical Education, College Credit is a course title covering any CTE advanced course offered for credit by an accredited post-secondary institution through an adjunct agreement with a secondary school. The intent of this course is to allow students to earn college credit for courses with content that goes beyond that currently approved for high school credit. This course may be used for any dual enrollment course, including a joint program of study involving a postsecondary partnership.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: CTE courses that would help prepare the student for success in this area.
- Credits: 1 semester course, up to 3 credits per semester, May be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- A student should earn at least 3 postsecondary credits for each high school credit. Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

Digital Design

7140 Principles of Digital Design

PRIN DIG DES

Principles of Digital Design introduces students to fundamental design theory. Investigations into design theory and color dynamics will provide experiences in applying design theory, ideas and creative problem solving, critical peer evaluation, and presentation skills. Students will have the opportunity to apply the design theory through an understanding of basic photographic theory and technique. Topics will include image capture, processing, various output methods, and light.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7141 Digital Design Graphics

DIG DES GRAPH

Digital Design Graphics will help students to understand and create the most common types of computer graphics used in visual communications. Skills are developed through work with professional vector-based and page layout software used in the industry. Additionally, students will be introduced to a full range of image input technology and manipulation including conventional photography, digital imaging, and computer scanners. Students will learn to communicate concepts and ideas through various imaging devices.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Digital Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5550 Graphic Design and Layout

GRAPH DES LT

Graphic Design and Layout teaches design process and the proper and creative use of type as a means to develop effective communications for global, corporate and social application. Students will create samples for a portfolio, which may include elements or comprehensive projects in logo, stationery, posters, newspaper, magazine, billboard, and interface design.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Digital Design; Digital Design Graphics
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum

- Counts as a directed elective or elective for all diplomas
- Principles course is not required until 24-25 school year because this course is included in Perkins V pathways.
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

7138 Interactive Media Design

IN MED DES

Interactive Media Design focuses on the tools, strategies, and techniques for interactive design and emerging technologies, like web and social media. Students will learn the basics of planning, shooting, editing and post-producing video and sound. Additionally, students will explore the process of integrating text, graphics, audio and video for effective communication of information.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Digital Design; Digital Design Graphics
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7136 Professional Photography & Videography

PRO PHOTO/VID

Professional Photography & Videography further develops advanced camera skills and photographic vision. The course introduces special techniques and digital processes while refining printing and processing skills. It will also emphasize good composition and the use of photography as a communication tool. Students will also learn the basics of planning, shooting, editing and post-producing video and sound.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Digital Design; Digital Design Graphics
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7246 Digital Design Capstone

DIG DES CAP

The Digital Design Capstone course provides students the opportunity to dive deeper into advanced concepts of Visual Communication including user experience/user interface design, video production editing, animation and/or web design. Depending on the length of the course, students may focus their efforts on one area or explore multiple aspects.

- Recommended Grade(s): 11, 12

- Required Prerequisites: Digital Design Concentrator Sequence
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- Counts as a Directed Elective or Elective for all diplomas

Fashion, Textiles, and Design

7301 Principles of Fashion and Textiles

PRIN FASH TEXT

Principles of Fashion and Textiles prepares students for occupations and higher education programs of study related to the entire spectrum of careers in the fashion industry. This course builds a foundation that prepares students for all aspects of the fashion creation process. Major topics include: Basic clothing construction techniques, pattern alterations, and use of commercial patterns.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7302 Textiles, Apparel, and Merchandising

TEXT APP MERCH

Textiles, Apparel, and Merchandising provides a comprehensive overview of the textiles, apparel and merchandising industry specific to fashion related goods including the nature of fashion, raw materials and production, designers, retailers, and supporting services.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Fashion and Textiles
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7303 Advanced Textiles

ADV TEXT

Advanced Textiles will focus on the study of textiles concerning fiber, yarn, fabric construction, and finishes which affect the selection, use, and care of textiles.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Fashion and Textiles; Textiles, Apparel, and Merchandising
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum

- Counts as a Directed Elective or Elective for all diplomas

7304 Fashion and Textiles Capstone

FASH TEXT CAP

Fashion Textile Capstone studies the evolution of Western dress from ancient times to the twentieth century. Emphasis on representative style and change over time. Additionally, this course will focus on the Identification of physical features which affect apparel quality. Analysis of ready-to-wear apparel to identify features which produce desirable aesthetic and functional performance is also covered.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Fashion and Textiles; Textiles, Apparel, and Merchandising; Advanced Textiles
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

<u>Interior Design</u>

7132 Principles of Interior Design

PRIN INT DES

Principles of Interior Design introduces students to fundamental design theory and color dynamics as applied to compositional design. Investigations into design theory and color dynamics will provide experiences in applying design theory to three-dimensional concepts, human factors and the psychology and social influences of space. These experiences will develop student's skills in creative problem solving, peer evaluation, and presentation skills.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7127 Interior Design Fundamentals

INT DES FUN

Interior Design Fundamentals provides students with an overview of the field of interior (environmental) design, including an understanding of fundamental construction knowledge and skills needed in the field. Exercises include small scale space analysis and functional planning based on user needs, furniture arrangement and selection, materials and finishes considerations and presentation techniques. Students will also learn basics regarding building practices, building structures, residential construction techniques, building materials and plan reading. Includes building codes, sustainable design practices, and the preparation of site and construction plans, elevations, sections, three-dimensional drawings details and hand renderings as they relate to construction and presentation drawings.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Interior Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7128 Materials, Finishes, and Design

MAT FIN DES

Materials, Finishes, and Design examines the physical properties and characteristics of furniture, materials, finishes, and architectural detailing. The course includes an intensive study of textiles, including fiber sources, identification and classification to finish and sustainable qualities. Students will apply textile knowledge to interior textile fabrications including window treatments, upholstery, carpet and wall coverings. Content addresses environmental issues and problems in specifying, estimating, and installing these materials.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Interior Design; Interior Design Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7248 Interior Design Capstone

INT DES CAP

The Interior Design Capstone course is designed to provide students a chance to extend their knowledge and skills through additional course work and a work-based learning experience.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Interior Design; Interior Design Fundamentals; Materials, Finishes, and Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- Counts as a Directed Elective or Elective for all diplomas

Radio and Television Broadcasting

7139 Principles of Broadcasting

PRIN BROAD

The purpose of the Principles of Broadcasting course is to provide entry-level fundamental skills for students who wish to seek or pursue opportunities in the field of broadcasting or mass media. Students will explore the technical aspects of audio and sound design for radio production and distribution, as well as, the technical aspects of video production and distribution.

- Recommended Grade(s): 9, 10, 11

- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7306 Audio and Video Production Essentials

AUD VID PROD

Audio and Video Production Essentials provides an in-depth study on audio and video production techniques for radio, television, and digital technologies. Students will learn skills necessary for audio production and on-air work used in radio and other digital formats. Additionally, experience will be gained in the development of the video production process; including skills in message development, directing, camera, video switcher, and character generator operations.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Broadcasting
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7307 Mass Media Production

MASS MED PROD

Mass Media Production will focus on the study of theory and practice in the voice and visual aspects of radio and television performance. In addition, this course introduces the skills used to acquire and deliver news stories in a digital media format. Students will learn how to research issues and events, interview news sources, interact with law enforcement and government officials, along with learning to write in a comprehensive news style.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Broadcasting; Audio and Video Production Essentials
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7308 Radio & TV Broadcasting Capstone

RAD TV BROAD CAP

This course will cover a variety of domains further building on skills in video production, and broadcast industry practices specific to radio, television, and digital media. Attention will be given to cross-industry synergies, emerging technologies, and the global market for media. Students are highly encouraged to do a video newscast or radio practicum to gain real world experience. In most cases this practicum may be completed through a school-based enterprise.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Broadcasting; Audio and Video Production Essentials; Mass Media Production
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

Business Management, Marketing, Finance, and Entrepreneurship

4512 Applied Business Math

BUS MATH

Applied Business Math is a course designed to prepare students for roles as entrepreneurs, producers, and business leaders by developing abilities and skills that are part of any business environment. A solid understanding of application of money management skills, navigating industry specific technology and apps, establishing and managing budgets, and maintaining inventory for products and other necessary skills that provides the foundation for students interested in careers in business related fields and everyday life. The content includes basic mathematical operations related to accounting, banking and finance, marketing, management, and retail. Instructional strategies should include simulations, guest speakers, tours, Internet research, and business experiences

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 4 units maximum
- Counts as an elective for the Certificate of Completion
- Fulfills a Mathematics requirement for the Certificate of Completion
- Qualifies as a quantitative reasoning course

4512 Business Math

BUS MATH

Business Math is a course designed to prepare students for roles as entrepreneurs, producers, and business leaders by developing abilities and skills that are part of any business environment. A solid understanding of math including algebra, basic geometry, statistics, and probability provides the necessary foundation for students interested in careers in business and skilled trade areas. The content includes mathematical operations related to accounting, banking and finance, marketing, and management. Instructional strategies should include simulations, guest speakers, tours, Internet research, and business experiences.

- Recommended Grade(s): 10, 11
- Required Prerequisites: Algebra I
- Recommended Prerequisites: none
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a quantitative reasoning course
- Counts as an elective or directed elective for all diplomas
- Fulfills a Mathematics requirement for the General Diploma or Certificate of Completion only.

4518 Introduction to Business

INTO BUSS

Introduction to Business introduces students to the world of business, including the concepts, functions, and skills required for meeting the challenges of operating a business in the twenty-first century on a local, national, and/or international scale. The course covers business management, entrepreneurship, marketing fundamentals, and business ethics and law. The course develops business vocabulary and provides an overview of business and the role that business plays in economic, social, and political environments.

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5966 Entrepreneurship and New Ventures Capstone

ENT VENT CAP

Entrepreneurship and New Ventures Capstone introduces entrepreneurship and develops skills and tools critical for starting and succeeding in a new venture. The entrepreneurial process of opportunity recognition, innovation, value proposition, competitive advantage, venture concept, feasibility analysis, and “go to” market strategies will be explored through mini-case studies of successful and unsuccessful entrepreneurial start-ups. Additionally, topics of government and legal restrictions, intellectual property, franchising location, basic business accounting, raising startup funding, sales and revenue forecasting, and business plan development will be presented through extensive use of word processing, spreadsheet and presentation software.

- Recommended Grade(s): 12
- Required Prerequisites: Any CTE Concentrator Sequence except Entrepreneurship
- Recommended Prerequisites: Earn CTE Concentrator Status in any CTE program or program of study.
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a directed elective or elective for all diplomas

5967 Introduction to Entrepreneurship

INTO ENTR

Introduction to Entrepreneurship provides an overview of what it means to be an entrepreneur. Students will learn about starting and operating a business, marketing products and services, and how to find resources to help in the development of a new venture. This course is ideal for students interested in starting their own art gallery, salon, restaurant, etc.

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5968 Business, Marketing and Entrepreneurship: Special Topics

BME ST

Business, Marketing, and Entrepreneurship: Special Topics is an extended learning experience designed to address the advancement and specialization of careers within the career cluster through the provision of a specialized course for a specific workforce need in the school's region. The learning experience is at a qualified site, and is designed to give the student the opportunity to learn and practice technical skills; while working under the direction of the appropriately licensed professional. Throughout the course, students will focus on learning about employment opportunities and obtaining the knowledge, skills and attitudes essential for success in specific occupations. Course standards and curriculum must be tailored to the specific profession, preparing students to advance in this career field, and where applicable, provide students with opportunities for certification or dual credit. Participation in a related CTSO encourages the development of leadership, communication and career related skills, and opportunities for community service.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Business or Introduction to Entrepreneurship; CTE courses that would help prepare the student for success in this area.
- Credits: 1 semester course, up to 3 credits per semester, May be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

6142 Advanced Career & Technical Education, College Credit: Business, Marketing, and Entrepreneurship

ADV BUS CC BME

Advanced Career and Technical Education, College Credit is a course title covering any CTE advanced course offered for credit by an accredited post-secondary institution through an adjunct agreement with a secondary school. The intent of this course is to allow students to earn college credit for courses with content that goes beyond that currently approved for high school credit. This course may be used for any dual enrollment course, including a joint program of study involving a postsecondary partnership.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: CTE courses that would help prepare the student for success in this area.
- Credits: 1 semester course, up to 3 credits per semester, May be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- A student should earn at least 3 postsecondary credits for each high school credit. Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

4562 Principles of Business Management

PRIN BUS

Principles of Business Management examines business ownership, organization principles and problems, management, control facilities, administration, financial management, and development practices of business enterprises. This course will also emphasize the identification and practice of the appropriate use of technology to communicate and solve business problems and aid in decision making. Attention will be given to developing business communication, problem-solving, and decision-making skills using spreadsheets, word processing, data management, and presentation software.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Digital Applications and Responsibility
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

<u>Business Administration</u>

7143 Management Fundamentals

MGMT FUND

Management Fundamentals describes the functions of managers, including the management of activities and personnel. Describes the judicial system and the nature and sources of law affecting business. Studies contracts, sales contracts with emphasis on Uniform Commercial

Code Applications, remedies for breach of contract and tort liabilities. Examines legal aspects of property ownership, structures of business ownership, and agency relationships.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Business Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

4524 Accounting Fundamentals

ACCT FUND

Accounting Fundamentals introduces the language of business using Generally Accepted Accounting Principles (GAAP) and procedures for proprietorships and partnerships using double-entry accounting. Emphasis is placed on accounting principles as they relate to both manual and automated financial systems. This course involves understanding, analyzing, and recording business transactions and preparing, analyzing, and interpreting financial reports as a basis for decision-making.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Business Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective all diplomas
- Principles course is not required until 24-25 school year because this course is included in Perkins V pathways.
- Formerly Introduction to Accounting

7256 Business Administration Capstone

BUS ADMIN CAP

The Business Administration Capstone course will allow students to explore advanced topics in business leadership including Human Resources and International Business. Additionally students will have the chance to complete Managerial Accounting. Throughout the course students will develop business communication skills through work on projects, labs, and simulations. All of these courses represent key business competencies required by nearly all postsecondary Business schools.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Business Management; Management Fundamentals; Accounting Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

<u>Accounting</u>

4522 Advanced Accounting

ADV ACC

Advanced Accounting expands on the Generally Accepted Accounting Principles (GAAP) and procedures for various forms of business ownership using double-entry accounting covered in Accounting Fundamentals, including an emphasis on payroll accounting. Topics covered include calculating gross pay, withholdings, net pay, direct deposits, journalizing payroll transactions and preparing individual earnings records and payroll registers. Emphasis is placed on applying Generally Accepted Accounting Principles through hands-on practice with popular commercial accounting software packages that are currently used in business.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Business Management; Accounting Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a quantitative reasoning course
- Counts as a directed elective or elective for all diplomas

7252 Accounting Capstone

ACCT CAP

The Accounting Capstone course will emphasize Managerial Accounting concepts and Income Tax Accounting for individuals and sole proprietorships. Topics include general versus cost accounting systems, cost behavior, cost-volume profit analysis, budgeting, standard cost systems, responsibility accounting, incremental analysis, and capital investment analysis. Offers an overview of federal and state income tax law for individuals including taxable income, capital gains and losses, adjustments, standard and itemized deductions, tax credits and appropriate tax forms. When offered for multiple credits per semester, the Accounting Capstone may be used to provide students the opportuntity to participate in an intensive work-based learning experience and/or to complete additional coursework in using spreadsheets to solve accounting cases and to complete a postsecondary credential from ITCC or VU.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Business Management; Accounting Fundamentals; Advanced Accounting
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Counts as a quantitative reasoning course

<u>Finance and Investment</u>

7150 Personal Finance and Banking

PERSON FIN/BNK

Personal Finance and Banking emphasizes management of individual financial resources for growth and maintenance of personal wealth. Covers home buying and mortgage financing,

installment financing, life and health insurance, securities, commodities and other investment opportunities. Students will gain an overview of banking industry and the financial services provided by banks for individuals and businesses.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Business Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

5258 Finance and Investment

FIN INVEST

Finance and Investments addresses the need of schools in areas that have workforce demand in the finance industry. It analyzes and synthesizes high-level skills needed for a multitude of career in the banking and investment industry. Students learn banking, investments, and other finance fundamentals and applications related to financial institutions, business and personal financial services, investment and securities, risk management products, and corporate finance.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Business Management; Personal Finance and Banking or Accounting Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course

- Formerly Banking and Investment Capstone; Principles course is not required until 24-25 school year because this course is included in Perkins V pathways.

7265 Finance and Investment Capstone

FIN CAP

The Finance and Investment Capstone course would include content on Credit and Collections, Real Estate, Business Law and possibly Accounting.

- Recommended Grade(s): 12
- Required Prerequisites: Principles of Business Management; Personal Finance and Banking or Accounting Fundamentals; Finance and Investment
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as a quantitative reasoning course

Marketing

5914 Marketing Fundamentals

MRKT FUND

Marketing Fundamentals provides a basic introduction to the scope and importance of marketing in the global economy. Course topics include the seven functions of marketing: promotion, channel management, pricing, product/service management, market planning, marketing information management, and professional selling skills. Emphasis is marketing content but will involve use of oral and written communications, mathematical applications, problem-solving, and critical thinking skills through the development of an integrated marketing plan and other projects.

- Recommended Grade(s): 11,12
- Required Prerequisites: Principles of Business Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Formerly Principles of Marketing; Principles course is not required until 24-25 school year because this course is included in Perkins V pathways.

7145 Digital Marketing

DGTL MARK

Digital Marketing provides an introduction to the world of e-commerce and digital marketing media. The course covers how to integrate digital media and e-commerce into organizational and marketing strategy. Students will explore e-commerce applications and the most popular digital marketing tactics and tools. Emphasizes familiarity with executing digital media, understanding the marketing objectives that digital media can help organizations achieve, and establishing and enhancing an organization's digital marketing presence.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Business Management; Marketing Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5918 Strategic Marketing

STRT MRKT

Strategic Marketing builds upon the foundations of marketing and applies the functions of marketing at an advanced level. Students will study the basic principles of consumer behavior and examine the application of theories from psychology, social psychology, and economics. The relationship between consumer behavior and marketing activities will be reviewed.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Business Management; Marketing Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-2 credits per semester, 4 credits maximum
- Counts as a directed elective or elective for all diplomas
- Principles course is not required until 24-25 school year because this course is included in Perkins V pathways.

Supply Chain Management

7155 Logistics Management

LOG MGMT

Logistics Management provides students the opportunity to explore how essential managerial functions relate to the various components of a logistics operation. Logistics concepts are approached from a manufacturing perspective with a focus on system integration and automation and lean manufacturing operations. Topics will include logistics systems, supply chain management, order, demand inventory and warehouse management, and automated components of a logistics system. Students will be prepared for the MSSC Certified Logistics Associate (CLA) and MSSC Certified Logistics Technician (CLT) certifications.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Business Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7142 Supply Chain Management

SUP CH MGMT

Supply Chain Management will build upon the knowledge and skills developed in the Logistics Management course by focusing on specific aspects of Supply Chain Management such as supply chain strategy, planning and design, customer service, purchasing, forecasting, inventory and warehouse management, as well as an in-depth study of transportation systems. Students will examine various modes of transportation and their associated characteristics, economics, and regulations.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Business Management; Logistics Management

- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7258 Supply Chain Management Capstone

SUP CH MGMT CAP

Supply Chain Management Capstone course will build upon the knowledge and skills learned in previous courses by taking a deeper dive into Procurement, Operations Management, Lean Manufacturing Systems.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Business Management; Logistics Management; Supply Chain Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

Insurance

7149 Insurance Fundamentals

INS FUN

Insurance Fundamentals presents an introduction to professions within the insurance industry. The course includes an overview of the insurance industry, types of coverage that exist, insurance processes and expected outcomes. Students will also gain an understanding of the selling process including the psychology of selling and will develop skills through a series of selling situations.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Business Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7151 Personal and Commercial Insurance

PER PROP INS

Personal and Commercial Insurance provides an understanding of the basic principles of personal and property and liability insurance. Students will analyze personal loss exposures and insurance including homeowners and other dwelling coverages, personal liability, inland marine, auto, life, health insurance, and financial planning. Students will also explore commercial coverages including general liability and workers compensation.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Business Management; Insurance Fundamentals

- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

Entrepreneurship

7154 Principles of Entrepreneurship

PRIN ENTR

Principles of Entrepreneurship focuses on students learning about their own strengths, character and skills and how their unique abilities can apply to entrepreneurship, as well as how an entrepreneurial mindset can serve them regardless of their career path. Students will learn about the local, regional and state resources and will begin to understand and apply the entrepreneurial process. The course helps students to identify and evaluate business ideas while learning the steps and competencies required to launch a successful new venture. The course helps students apply what they have learned from the content when they write a Personal Vision Statement, a Business Concept Statement, and an Elevator Pitch.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7148 New Venture Development

NEW VENT

New Venture Development is targeted to students interested in creating and growing their own businesses. The course will focus on key marketing strategies particularly relevant for new ventures. Students will apply marketing concepts to entrepreneurial company challenges, which include creating and nurturing relationships with new customers, suppliers, distributors, employees and investors; and understand the special challenges and opportunities involved in developing marketing strategies "from the ground up."

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Entrepreneurship
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7147 Small Business Operation

SM BUS OPER

Small Business Operations will help students identify and evaluate the various sources available for funding a new enterprise; demonstrate an understanding of financial terminology; read, prepare, and analyze basic financial statements; estimating capital requirements and risk, exit

strategies; and prepare a budget for their business, including taxes and personnel costs. In addition, the student should be able to explain the importance of working capital and cash management. The student should also be able to identify financing needs, and prepare sales forecasts.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Entrepreneurship; New Venture Development
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

Business Operations

7153 Principles of Business Operations and Technology

PRIN BUS OP TECH

The Principles of Business Operations and Technology course will prepare students to plan, organize, direct, and control the functions and processes of a firm or organization and be successful in a work environment. Students are provided opportunities to develop attitudes and apply skills and knowledge in the areas of business, management, Microsoft office, and finance. Individual experiences will be based upon the student's career and educational goals.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7144 Business Office Communications

BUS OFF COMM

The Business Office Communications course emphasizes the analysis of communication to direct the choice of oral and written methods and techniques. It includes practice in writing a variety of messages used to communicate in business and industry with an emphasis on the potential impact of the message on the receiver as a basis for planning and delivering effective business communications. Through projects and the development of messages students will develop their knowledge and skills for the use of Microsoft Word and Microsoft PowerPoint.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Business Operations and Technology
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7146 Digital Data Applications

DGTL REC KEEP

Students will use Microsoft Excel to sort and search records, combine files, produce reports, and to extract data from a file. This course is designed to include creating and formatting worksheets, using formulas and basic functions, creating charts, and printing professional-looking reports. Additionally students will use Microsoft Access to create a database and to manage a database through the creation and modification of a query. Students will also be expected to produce reports from the information.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Business Operations and Technology
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7254 Business Operations and Technology Capstone

BUS OPER CAP

Digital literacy has become increasingly important to the business environment. Technological advances provide opportunities for businesses to survey inclusion of new innovations. This course discusses, identifies, researches, and applies emerging technologies. Discussing new technology and understanding the importance of updating skills is necessary for today's business operations.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Business Operations and Technology; Business Office Communications; Digital Data Applications
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7201 Business Management Capstone

BUS MGMT CAP

The Business Management Capstone is designed to provide any student with the Business Management skills necessary to run their own business or to serve in upper level management. Students will explore Management Theory, Accounting, and Business Law. The Business Management Capstone can be used with any career pathway except Business Administration. Completion of the course may allow students the opportunity to earn a CT or TC through ITCC.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Any CTE Business Concentrator Sequence except Business Administration
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Recommended Capstone course for Entrepreneurship, Insurance, and Marketing Programs of Study

Career and Technical Education/Work-Based Learning

4508 Technical/Business Communication

TECH BUS COMM

Technical/Business Communications provides students with the communication and problem-solving skills to function effectively in the workplace. Areas study include written/oral/visual communication, listening, informational reading, Internet research/analysis, and electronic communication. Concepts addressed will included adapting communication to the situation, purpose, and audience. Students produce documents related employee handbooks, instructional manuals, employment communication, organizational communication, business reports, and social/professional situations using word processing, presentation, multimedia, and desktop publishing software.

- Recommended Grade(s): 11,12
- Required Prerequisites: none
- Recommended Prerequisites: Digital Applications and Responsibility
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

4540 Applied Personal Financial Responsibility

PRS FIN RSP

Applied Personal Financial Responsibility addresses the identification and management of personal financial resources to meet the financial needs and wants of individuals and families, considering a broad range of economic, social, cultural, technological, environmental, and maintenance factors. This course helps students build and apply skills in financial literacy and responsible decision making. Content includes analyzing personal standards, needs, wants, and goals; identifying sources of income, and navigating technology for money management. A project based approach and applications through authentic settings such as work based observations, service learning experiences and community-based instruction are appropriate. Direct, concrete applications of basic mathematics proficiencies in projects are encouraged.

- Recommended Grade(s): 9,10,11,12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 units maximum
- Counts as an elective for the Certificate of Completion
- Qualifies as an Applied Math course for the Certificate of Completion

4540 Personal Financial Responsibility

PRSFINRSP

Personal Financial Responsibility addresses the identification and management of personal financial resources to meet the financial needs and wants of individuals and families, considering a broad range of economic, social, cultural, technological, environmental, and maintenance factors. This course helps students build skills in financial responsibility and decision making; analyze personal standards, needs, wants, and goals, identifying sources of income, savings, and investing; understand banking, budgeting, record-keeping and managing risk, insurance and credit card debt. A project based approach and applications through authentic settings such as work based observations and service learning experiences are appropriate. Direct, concrete applications of mathematics proficiencies in projects are encouraged.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 credit per semester, 1 credit maximum
- Counts as a quantitative reasoning course
- Counts as a directed elective or elective for all diplomas

5237 CTSO Leadership Development in Action

LEAD DEV

Leadership Development in Action is a project-based course in which students integrate higher order thinking, communication, leadership, and management processes to conduct Career and Technical Student Organization (CTSO) leadership projects at the local, state, or national level. Each student will create a vision statement, establish standards and goals, design and implement an action plan and timeline, reflect on accomplishments, and evaluate results.

Authentic, independent application through CTSO student-directed programs or projects, internship, community-based study, or in-depth laboratory experience is required. Research and development, interdisciplinary projects, and/or collaboration with post-secondary faculty, community agencies, or organizations are appropriate approaches. Instructor must be a current chapter advisor of an Indiana-recognized CTSO. State and national membership in an Indiana recognized CTSO is required of any student enrolled in this course. Service learning experiences are highly recommended. Achievement of applicable Career and Technical Education (CTE), academic, and employability standards will be documented through a required student portfolio.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Preparing for College and Careers; sequence of courses relevant to the student's CTSO and area of concentration; or permission of instructor through an application process.
- Credits: 1 credit per semester, up to 6 semesters, 6 credits maximum
- Counts as a directed elective or elective for all diplomas

- Note: Can only be offered at schools with officially registered CTSO chapters and must be taught by the registered Advisor of that CTSO Chapter. Students MUST be members of the state and national CTSO.

5239 Career & Technical Education Pilot Course: (Insert title descriptive of course content)

CTE PILOT

Career and Technical Education Pilot Course is a course title that would be used for enrollment reporting purposes by schools that are piloting a new Career and Technical Education course. Schools must apply to the Office of Career and Technical Education for a non-standard course waiver and propose a course description and standards, explain how the pilot course relates to an existing or innovative pathway, and provide a rationale describing business and industry need and support. Schools are to follow the pilot course framework and provide feedback at the end of the pilot year on that framework to the Department and the related pathway panel.

- Recommended Grade(s): 9, 10, 11, 12
- Required Prerequisites: Determined by the CTE Nonstandard Course Waiver
- Recommended Prerequisites: none
- Credits: 1 semester course, up to 3 credits per semester, May be offered for successive semesters up to 12 credits
- Determinded via the CTE Nonstandard Course Waiver process
- Note: This course requires an approved CTE Nonstandard Course Waiver

5330 Adult Roles and Responsibilities

ADULTROLES

Adult Roles and Responsibilities is recommended for all students as life foundations and academic enrichment, and as a career sequence course for students with interest in family and community services, personal and family finance, and similar areas. This course builds knowledge, skills, attitudes, and behaviors that students will need as they complete high school and prepare to take the next steps toward adulthood in today's society. The course includes the study of interpersonal standards, lifespan roles and responsibilities, individual and family resource management, and financial responsibility and resources. A project-based approach that utilizes higher order thinking, communication, leadership, management processes, and fundamentals to college and career success is recommended in order to integrate these topics into the study of adult roles and responsibilities. Direct, concrete mathematics and language arts proficiencies will be applied. Service learning and other authentic applications are strongly recommended. This course provides the foundation for continuing and post-secondary education in all career areas related to individual and family life.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester, 1 credit maximum
- Qualifies as one of the FACS courses a student can take to waive the Health & Wellness graduation requirement, in place of either Human Development and Wellness or

Interpersonal Relationships. To qualify for the Health and Wellness waiver, a student must take three approved courses. For more information, see 511 IAC 6-7.1-4(c)(6).

5330 Applied Adult Roles and Responsibilities

ADULTROLES

Applied Adult Roles and Responsibilities is recommended for all students as life foundations and academic enrichment for students with interest in family and community services, personal and family finance, and similar areas. This course builds knowledge, skills, attitudes, and behaviors that students will need as they complete high school and prepare to take the next steps toward adulthood in today's society. The course includes the study of interpersonal standards, lifespan roles and responsibilities, individual and family resource management, and financial responsibility and resources. A project or community-based approach that utilizes problem solving skills, communication, leadership, self-determination skills, management processes, and fundamentals to college, career and community membership success. Service learning and other authentic applications are strongly recommended.

- Recommended Grade(s): 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 units maximum
- Counts as an elective or Employability Requirement for the Certificate of Completion

5334 Applied Consumer Economics

CONS ECON

Applied Consumer Economics enables students to apply economic principles to their individual, family, workplace, and community lives. A project-based approach that utilizes higher order thinking, communication, leadership, self-determination, and management processes is recommended to strengthen the understanding and application of consumer economics issues. The course focuses on interrelationships among economic principles and individual and family roles of exchanger, consumer, producer, saver, investor, and citizen. Economic principles to be studied include scarcity, supply and demand, market structure, the role of government, money and the role of financial institutions, labor productivity, economic stabilization, and trade.

- Recommended Grade(s): 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 unit maximum
- Counts as an Employability or Social Studies requirement for the Certificate of Completion

5334 Consumer Economics

CONS ECON

Consumer Economics enables students to achieve high standards and competencies in economic principles in contexts of high relevancy and applicability to their individual, family, workplace, and community lives. A project-based approach that utilizes higher order thinking, communication, leadership, and management processes is recommended in order to integrate suggested topics into the study of consumer economics issues. The course focuses on interrelationships among economic principles and individual and family roles of exchanger, consumer, producer, saver, investor, and citizen. Economic principles to be studied include scarcity, supply and demand, market structure, the role of government, money and the role of financial institutions, labor productivity, economic stabilization, and trade. Depending on needs and resources, this course may be taught in a local program. In schools where it is taught, it is recommended for all students regardless of their career pathway, in order to build basic economics proficiencies. Students understand how biology, chemistry, and physics principles apply to the composition of foods, the nutrition of foods, food product development, food processing, food safety and sanitation, food packaging, and food storage. Students completing this course will be able to apply the principles of scientific inquiry to solve problems related to biology, physics, and chemistry in the context of highly advanced industry applications of foods.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 credit per semester, 1 credit maximum
- Counts as a quantitative reasoning course
- Counts as a directed elective or elective for all diplomas

5340 Advanced Nutrition and Wellness

ADV NTRN WEL

Advanced Nutrition and Wellness is a course which provides an extensive study of nutrition. This course is recommended for all students wanting to improve their nutrition and learn how nutrition affects the body across the lifespan. Advanced Nutrition and Wellness is an especially appropriate course for students interested in careers in the medical field, athletic training and dietetics. This course builds on the foundation established in Nutrition and Wellness, which is a required prerequisite. This is a project-based course; utilizing higher-order thinking, communication, leadership and management processes. Topics include extensive study of major nutrients, nutritional standards across the lifespan, influences on nutrition/food choices, technological and scientific influences, and career exploration in this field. Laboratory experiences will be utilized to develop food handling and preparation skills; attention will be given to nutrition, food safety and sanitation. This course is the second in a sequence of courses that provide a foundation for continuing and post-secondary education in all career areas related to nutrition, food, and wellness.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Nutrition and Wellness
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum

- Counts as a directed elective or elective for all diplomas

5342 Applied Nutrition and Wellness

NTRN WLNS

Applied Nutrition and Wellness is an introductory course valuable for all students as a life foundation and academic enrichment. This is a nutrition class that introduces students to only the basics of food preparation so they can become self- sufficient in accessing healthy and nutritious foods. Major course topics include nutrition principles and applications; influences on nutrition and wellness; food preparation, safety, and sanitation; and science, technology, and careers in nutrition and wellness. A project-based approach that utilizes higher order thinking, communication, leadership, self-determination, and management processes, and fundamentals to college and career success is recommended in order to integrate these topics into the study of nutrition, food, and wellness. Food preparation experiences are a required component. Direct, concrete mathematics and language arts proficiencies will be applied.

- Recommended Grade(s): 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 units maximum
- Counts as an Employability Requirement or elective for the Certificate of Completion

5342 Nutrition and Wellness

NTRN WLNS

Nutrition and Wellness is an introductory course valuable for all students as a life foundation and academic enrichment; it is especially relevant for students interested in careers related to nutrition, food, and wellness. This is a nutrition class that introduces students to only the basics of food preparation so they can become self-sufficient in accessing healthy and nutritious foods. Major course topics include nutrition principles and applications; influences on nutrition and wellness; food preparation, safety, and sanitation; and science, technology, and careers in nutrition and wellness. A project-based approach that utilizes higher order thinking, communication, leadership, management processes, and fundamentals to college and career success is recommended in order to integrate these topics into the study of nutrition, food, and wellness. Food preparation experiences are a required component. Direct, concrete mathematics and language arts proficiencies will be applied. This course is the first in a sequence of courses that provide a foundation for continuing and post-secondary education in all career areas related to nutrition, food, and wellness

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 credit per semester, 1 credit maximum
- Counts as a directed elective or elective for all diplomas
- Qualifies as one of the FACS courses a student can take to waive the Health & Wellness graduation requirement. To qualify for the Health and Wellness waiver, a student must take three of the approved courses. For more information, see 511 IAC 6-7.1-4(c)(6).

- Local programs have the option of offering a second version of the course that is focused more on the fitness aspects of wellness and nutrition. This version may be taught within the family and consumer sciences department or it may be interdisciplinary and team taught or co-taught with a teacher licensed in physical education. Such a course may be differentiated from the regular course offering by using a subtitle in addition to Nutrition and Wellness. A student may earn credits for multiple versions of the course. No waiver is required in this instance.
- Local programs may offer an additional version of this course for a specific student population, for instance, seniors who have never taken nutrition or foods courses. Such a course may be differentiated from the regular course offering by using a subtitle in addition to Nutrition and Wellness. A student may earn credits for multiple versions of the course. No waiver is required in this instance.

5360 Advanced Child Development

ADVCHLDDEV

Advanced Child Development is for those students interested in life foundations, academic enrichment, and/or careers related to knowledge of children, child development, and nurturing of children. This course addresses issues of child development from ages four through age eight (grade three). It builds on the Child Development course, which is a prerequisite. Advanced Child Development includes the study of professional and ethical issues in child development; child growth and development; child development theories, research, and best practices; child health and wellness; teaching and guiding children; special conditions affecting children; and career exploration in child development and nurturing. A project-based approach that utilizes higher order thinking, communication, leadership, management, and fundamentals to college and career success is recommended in order to integrate these topics into the study of child development. Direct, concrete mathematics and language arts proficiencies will be applied.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Child Development
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5362 Child Development

CHLD DEV

Child Development is an introductory course for all students as a life foundation and academic enrichment; it is especially relevant for students interested in careers that draw on knowledge of children, child development, and nurturing of children. This course addresses issues of child development from conception/prenatal through age 3. It includes the study of prenatal development and birth; growth and development of children; child caregiving and nurturing; and support systems for parents and caregivers. A project-based approach that utilizes higher order thinking, communication, leadership, management processes, and fundamentals to college and career success is recommended in order to integrate these topics into the study of child development. Direct, concrete mathematics and language arts proficiencies will be applied. Authentic applications such as introductory laboratory/field experiences with young children and/or service learning that build knowledge of children, child development, and nurturing of

children are strongly recommended. This course provides the foundation for continuing and post-secondary education in all career areas related to children, child development, and nurturing of children.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 credit per semester, 1 credit maximum
- Directed elective or elective for all diplomas

5364 Applied Interpersonal Relationships

INTRP RLT

Applied Interpersonal Relationships is an introductory course that is relevant for students interested in careers that involve interacting with people and for everyday life relationships. This course addresses knowledge and skills needed for positive and productive relationships in career, community, and family settings. Major course topics include communication skills; leadership, self-determination, teamwork, and collaboration; conflict prevention, resolution, and management; building and maintaining relationships; and individual needs and characteristics and their impacts on relationships. A project or community-based approach is recommended in order to apply these topics of interpersonal relationships. This course provides a foundation for all careers and everyday life relationships that involve interacting with people both inside and outside of a business/organization, including team members, clients, patients, customers, the general public, family and friends.

- Recommended Grade(s): 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 units maximum
- Counts as an Employability Requirement or elective for the Certificate of Completion

5364 Interpersonal Relationships

INTRP RLT

Interpersonal Relationships is an introductory course that is especially relevant for students interested in careers that involve interacting with people. It is also valuable for all students as a life foundation and academic enrichment. This course addresses knowledge and skills needed for positive and productive relationships in career, community, and family settings. Major course topics include communication skills; leadership, teamwork, and collaboration; conflict prevention, resolution, and management; building and maintaining relationships; and individual needs and characteristics and their impacts on relationships. A project-based approach that utilizes higher order thinking, communication, leadership, and management processes, and fundamentals to college and career success is recommended in order to integrate these topics into the study of interpersonal relationships. Direct, concrete language arts proficiencies will be applied. Service learning and other authentic applications are strongly recommended. This course provides a foundation for continuing and post-secondary education for all career areas that involve interacting with people both inside and outside of a business/organization, including team members, clients, patients, customers, and the general public.

- Recommended Grade(s): 10, 11
- Required Prerequisites: NONE
- Recommended Prerequisites: none
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas; local programs have the option of offering a second version of the course that is focused more on family relations. Such a course may be differentiated from the regular course offering by using a subtitle in addition to Interpersonal Relationships. A student may earn credits for both versions of the course. No waiver is required in this instance.
- Qualifies as one of the FACS courses a student can take to waive the Health & Wellness graduation requirement. To qualify for the Health and Wellness waiver, a student must take three of the approved courses. For more information, see 511 IAC 6-7.1-4(c)(6).

5366 Applied Human Development and Wellness

HUMAN DEV

Applied Human Development and Wellness is valuable for all students as a life foundation and academic enrichment. Course content includes individuals' physical, social, emotional, and moral development and wellness across the lifespan. Major topics include principles of human development and wellness; impacts of family on human development and wellness; factors that affect human development and wellness; practices that promote human development and wellness; managing resources and services related to human development and wellness; and career exploration in human development and wellness. Life events and contemporary issues addressed in this course include (but are not limited to) change; stress; abuse; personal safety; and relationships among lifestyle choices, health and wellness conditions, and diseases. A project or community-based approach that utilizes problem solving skills, communication, leadership, self-determination skills, and management processes is recommended in order to apply and generalize these skills in authentic settings.

- Recommended Grade(s): 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 units maximum
- Counts as an Employability Requirement or elective for the Certificate of Completion

5366 Human Development and Wellness

HUMAN DEV

Human Development and Wellness is valuable for all students as a life foundation and academic enrichment; it is especially relevant for students interested in careers impacted by individuals' physical, social, emotional, and moral development and wellness across the lifespan. Major topics include principles of human development and wellness; impacts of family on human development and wellness; factors that affect human development and wellness; practices that promote human development and wellness; managing resources and services related to human development and wellness; and career exploration in human development and wellness. Life events and contemporary issues addressed in this course include (but are not limited to) change; stress; abuse; personal safety; and relationships among lifestyle choices, health and wellness conditions, and diseases. A project-based approach that utilizes higher

order thinking, communication, leadership, and management processes is recommended in order to integrate the study of these topics. Authentic applications through service learning are encouraged.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Qualifies as one of the FACS courses a student can take to waive the Health & Wellness graduation requirement. To qualify for the Health and Wellness waiver, a student must take three of the approved courses. For more information, see 511 IAC 6-7.1-4(c)(6).

5394 Applied Preparing for College and Careers

PREP CC

Applied Preparing for College and Careers addresses the knowledge, skills, and behaviors all students need to be prepared for success in college, career, and life. The focus of the course is the impact of today's choices on tomorrow's possibilities. Topics to be addressed include twenty-first century life and career skills; higher order thinking, communication, leadership, and management processes; exploration of personal aptitudes, interests, values, and goals; examining multiple life roles and responsibilities as individuals and family members, planning and building employability skills; transferring school skills to life and work, and managing personal resources. This course includes reviewing the 16 national career clusters and Indiana's College and Career Pathways, in- depth investigation of one or more pathways, reviewing graduation plans, developing career plans, and developing personal and career portfolios. A project-based approach, including computer and technology applications, cooperative ventures between school and community, simulations, and real life experiences, is recommended.

- Recommended Grade(s): 9,10,11,12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 units maximum
- Counts as an elective or Employability for the Certificate of Completion

5394 Preparing for College and Careers

PREP CC

Preparing for College and Careers addresses the knowledge, skills, and behaviors all students need to be prepared for success in college, career, and life. The focus of the course is the impact of today's choices on tomorrow's possibilities. Topics to be addressed include twenty-first century life and career skills; higher order thinking, communication, leadership, and management processes; exploration of personal aptitudes, interests, values, and goals, examining multiple life roles and responsibilities as individuals and family members, planning and building employability skills, transferring school skills to life and work; and managing personal resources. This course includes reviewing the 16 national career clusters and Indiana's College and Career Pathways, in-depth investigation of one or more pathways, reviewing graduation plans, developing career plans, and developing personal and career portfolios. A

project based approach, including computer and technology applications, cooperative ventures between school and community, simulations, and real world experiences, is recommended.

- Recommended Grade(s): 9
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- Qualifies as one of the FACS courses a student can take to waive the Heath & Wellness graduation requirement. To qualify for a waiver, a student must take three of the approved courses. For more information, please see 511 IAC 6-7.1-4(c)(6).
- Counts as a directed elective for all diplomas

7218 Technical Math

TECH MATH

Technical Math is designed to help students develop mathematical reasoning and real-world skills in analyzing verbal and written descriptions, translating them into algebraic, geometric, trigonometric and statistical statements and applying them to solve problems in fabrication, manufacturing, and business. The course will include at least six lab activities or projects to allow faculty and students to apply mathematics principles to work-related situations.

- Recommended Grade(s): 10, 11
- Required Prerequisites: Algebra I
- Recommended Prerequisites: none
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as directed elective or elective for all diplomas

7392 Career & Technical Education Principles Course: (Insert title descriptive of course content)

CTE PRIN

Career and Technical Education Principles Course is a course title that would be used for enrollment reporting purposes by schools that are offering a locally created CTE Concentrator Sequence. Schools must apply to the Office of Career and Technical Education for a non-standard course waiver and propose a course description and standards, explain how the locally created concentrator program is an innovative pathway, and provide a rationale describing business and industry need and support. Schools are to follow the NLPS course framework.

- Recommended Grade(s): 9, 10, 11, 12
- Required Prerequisites: Determined by the CTE Nonstandard Course Waiver
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Note: This course requires an approved CTE Nonstandard Course Waiver

7393 Career & Technical Education Concentrator A Course: (Insert title descriptive of course content)

CTE CONCA

Career and Technical Education Concentrator A Course is a course title that would be used for enrollment reporting purposes by schools that are offering a locally created CTE Concentrator Sequence. Schools must apply to the Office of Career and Technical Education for a non-standard course waiver and propose a course description and standards, explain how the locally created concentrator program is an innovative pathway, and provide a rationale describing business and industry need and support. Schools are to follow the NLPS course framework.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Determined by the CTE Nonstandard Course Waiver
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Note: This course requires an approved CTE Nonstandard Course Waiver

7394 Career & Technical Education Concentrator B Course: (Insert title descriptive of course content)

CTE CONCB

Career and Technical Education Concentrator B Course is a course title that would be used for enrollment reporting purposes by schools that are offering a locally created CTE Concentrator Sequence. Schools must apply to the Office of Career and Technical Education for a non-standard course waiver and propose a course description and standards, explain how the locally created concentrator program is an innovative pathway, and provide a rationale describing business and industry need and support. Schools are to follow the NLPS course framework.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Determined by the CTE Nonstandard Course Waiver
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Note: This course requires an approved CTE Nonstandard Course Waiver

7395 Career & Technical Education Capstone Course: (Insert title descriptive of course content)

CTE CAP

Career and Technical Education Capstone Course is a course title that would be used for enrollment reporting purposes by schools that are offering a locally created CTE Concentrator Sequence. Schools must apply to the Office of Career and Technical Education for a non-standard course waiver and propose a course description and standards, explain how the locally created concentrator program is an innovative pathway, and provide a rationale describing business and industry need and support. Schools are to follow the NLPS course framework.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Determined by the CTE Nonstandard Course Waiver
- Recommended Prerequisites: none

- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Note: This course requires an approved CTE Nonstandard Course Waiver

5974 Applied Work Based Learning Capstone

WBL

Applied Work Based Learning Capstone is an instructional strategy that can be implemented as a stand-alone course or a component of any CTE course that prepares students for college and career. This strategy builds individual students' skills and knowledge within the area of interest. A standards based training plan is developed by the student, teacher, and workplace mentor to guide the student's work based learning experiences and assist in evaluating progress and performance, whether WBL is a stand-alone course or a component of a discipline-specific CTE course.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 6 units maximum
- Counts as an Employability Requirement, Capstone Course or elective for the Certificate of Completion

5974 Work Based Learning Capstone

WBL

Work Based Learning Capstone is a stand-alone course that prepares students for college and career. Work-Based Learning means sustained interactions with industry or community professionals in real workplace settings, to the extent practicable, or simulated environments at an educational institution that foster in-depth, first hand engagement with the tasks required of a given career field, that are aligned to curriculum and instruction. Work Based Learning Capstone experiences occur in workplaces and involve an employer assigning a student meaningful job tasks to develop his or her skills, knowledge, and readiness for work. A clear partnership agreement and training plan is developed by the student, teacher, and workplace mentor/supervisor to guide the student's work-based experiences and assist in evaluating achievement and performance. Related Instruction shall be organized and planned around the activities associated with the student's individual job and career objectives in a pathway and shall be taught during the same semester the student is participating in the work-based experience. For a student to become employable, the related instruction should cover: (a) employability skills, and (b) specific occupational competencies.

- Recommended Grade(s): 12
- Required Prerequisites: Complete at least one advanced career and technical education course from a program or program of study. Worksite placement must align to the student pathway.
- Recommended Prerequisites: none
- Credits: 1 semester course, 1-3 credits per semester, 6 credits maximum

- A minimum of 85 hours of workplace and classroom activities are required for one credit; 170 hours are required for the two credits. Of the 85 or 170 hours, 18 to 36 hours (at least
- Counts as a directed elective or elective for all diplomas
- Course is funded at a flat rate of $500; No longer counts toward concentrator status.

6148 Apprenticeship

APPSHIP

Apprenticeships are defined as intensive work-based learning opportunities that generally last from one to six years and provide a combination of on-the-job training and formal classroom instruction. They are intended to support progressive skill acquisition and lead to postsecondary credentials and, in some cases, degrees. Apprenticeships often involve 2,000 to 10,000 on-the-job hours. Students 16-years-old or older may qualify for an apprenticeship. Per the Indiana General Assembly, any apprenticeship program must be registered under the federal National Apprenticeship Act (29 U.S.C. 50 et seq.) or another federal apprenticeship program.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Dependent on program requirements
- Recommended Prerequisites: Complete at least one advanced career and technical education course from a program or program of study.
- Credits: 1 semester course, May be taken for successive semesters
- A minimum of 85 hours of workplace and classroom activities are required for one credit; 170 hours are required for the two credits. (1-12 credits)
- Counts as a directed elective or elective for all diplomas

6162 Applied Cooperative Education

COOP EDU

Applied Cooperative Education is an approach to employment training that spans all career and technical education program areas through school-based instruction and on the job training. Time allocations are a minimum of fifteen hours per week of on-the-job training and approximately five hours per week of school-based instruction, focused on employability skills development. Additionally, all state and federal laws and regulations related to student employment and cooperative education must be followed.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 6 units maximum
- Counts as an Employability Requirement or elective for the Certificate of Completion

6162 Cooperative Education

COOP EDU

Cooperative Education is an approach to employment training that spans all career and technical education program areas through school-based instruction and on the job training. Time allocations are a minimum of fifteen hours per week of on-the-job training and

approximately five hours per week of school-based instruction, focused on employability skills development. Additionally, all state and federal laws and regulations related to student employment and cooperative education must be followed.

- Recommended Grade(s): 12
- Required Prerequisites: none
- Recommended Prerequisites: Preparing for College and Careers; two credits in a career and technical education course
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a directed elective or elective for all diplomas
- Course is funded at a flat rate of $150; No longer counts toward concentrator status

7156 Technical Skills Development

TECH SKL DEV

The Technical Skills Development course may be used to provide students with the opportunity to apply the technical knowledge and skills learned in a Concentrator A or B course through additional real world learning experiences such as lab activities, project based learning or a work-based learning experience. Students must be co-enrolled in a Concentrator A and/or B course in order to be enrolled in the Technical Skills Development course.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Concurrently enrolled in a Next Level Programs of Study Concentrator A and/or B course.
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum per program of study
- Counts as a directed elective or elective for all diplomas
- May be used by a student more than once as long as it is two separate programs of study.

0530 Applied Career Exploration Internship

CARR EXP

The Applied Career Exploration Internship course is a paid or unpaid work experience in the public or private sector that provides for workplace learning in an area of student career interest. Unlike a cooperative education program in which students gain expertise in a specific occupation, the career exploration internship is intended to expose students to broad aspects of a particular industry or career cluster area by rotating through a variety of work sites or departments. In addition to their workplace learning activities, students participate in 1) regularly scheduled meetings with their classroom teacher, or 2) a regularly scheduled seminar with the teacher for the purpose of helping students make the connection between academic learning and their work-related experiences. Specific instructional standards tied to the career cluster or pathway and learning objectives for the internship must be written to clarify the expectations of all parties – the student, parent, employer, and instructor.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none

- Recommended Prerequisites: none
- Credits: 4 units maximum
- Counts as an Employability Requirement, Capstone Course or elective for the Certificate of Completion
- Note: This course is exploratory in nature and, as such, does not qualify for reimbursement under the career and technical education funding formula.

0530 Career Exploration Internship

CARR EXP

The Career Exploration Internship course is a paid or unpaid work experience in the public or private sector that provides for workplace learning in an area of student career interests. Unlike the work-based Learning capstone course in which students gain expertise in a specific occupation, the career exploration internship is intended to expose students to broad aspects of a particular industry or career cluster area by rotating through a variety of work sites or departments. In addition to their workplace learning activities, students participate in 1) regularly scheduled meetings with their classroom teacher, or 2) a regularly scheduled seminar with the teacher for the purpose of helping students make the connection between academic learning and their work-related experiences. Specific instructional standards tied to the career cluster or pathway and learning objectives for the internship must be written to clarify the expectations of all parties – the student, parent, employer, and instructor.

- Recommended Grade(s): 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Preparing for College and Careers; Career Information and Exploration
- Credits: 1 semester course, 1-3 credits per semester, 6 credits maximum
- A minimum of 85 hours of workplace and classroom activities are required for one credit; 170 hours are required for the two credits. Of the 85 or 170 hours, 18 to 36 hours (at least 1 hour a week or the equivalent over a semester or year) must be spent in related classroom instruction. Schools on block schedules may proportionately adjust the total number of hours per week to meet the local standard, provided that students spend at least one hour a week in classroom activities.
- Counts as a directed elective or elective for all diplomas
- Note: This course is exploratory in nature and, as such, does not qualify for reimbursement under the career and technical education funding formula.

4528 Applied Digital Applications and Responsibility

DIG APPS RESP

Applied Digital Applications and Responsibility prepares students to use technology in an effective and appropriate manner in school, in a job, or everyday life. Students develop skills related to word processing, spreadsheets, presentations, and communications software and may use highly specialized or individualized technology or software. Students learn what it means to be a good digital citizen and how to use technology, including social media, responsibly. Students expand their knowledge of how to use digital devices and software to build decision-making and problem-solving skills. Students may be provided with the opportunity to seek industry-recognized digital literacy certifications.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 4 units maximum
- Counts as an elective or Employability requirement for the Certificate of Completion

4528 Digital Applications and Responsibility

DIG APPS RESP

Digital Applications and Responsibility prepares students to use technology in an effective and appropriate manner in school, in a job, or everyday life. Students develop skills related to word processing, spreadsheets, presentations, and communications software. Students learn what it means to be a good digital citizen and how to use technology, including social media, responsibly. Students expand their knowledge of how to use digital devices and software to build decision-making and problem-solving skills. Students should be provided with the opportunity to seek industry-recognized digital literacy certifications.

- Recommended Grade(s): 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

Education and Training

5976 Education and Training: Special Topics

ET ST

Education and Training: Special Topics is an extended learning experience designed to address the advancement and specialization of careers within the career cluster through the provision of a specialized course for a specific workforce need in the school's region. The learning experience is at a qualified site, and is designed to give the student the opportunity to practice technical skills previously learned in the classroom all while working under the direction of the appropriately licensed professional. Throughout the course, students will focus on learning about employment opportunities at a variety of entry levels, an overview of the career cluster, teams, and legal and ethical considerations; and obtaining the knowledge, skills and attitudes essential for success in specific occupations. Course standards and curriculum must be tailored to the specific profession, preparing students to advance in this career field, and where applicable, provide students with opportunities for certification or dual credit. This course also provides students with the knowledge, attitudes, and skills needed to make the transition from high school, to post- secondary opportunities, and to work in a variety of careers. Students are encouraged to focus on self-analysis to aid in their career selection. Job seeking and job maintenance skills, personal management skills, and completion of the application process for admission into a post-secondary program are also areas of focus. Participation in a related CTSO encourages the development of leadership, communication and career related skills, and opportunities for community service.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: CTE courses that would help prepare the student for success in this area.
- Credits: 1 semester course, up to 3 credits per semester, May be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

6140 Advanced Career & Technical Education, College Credit: Education and Training

ADV CTE CC ET

Advanced Career and Technical Education, College Credit is a course title covering any CTE advanced course offered for credit by an accredited post-secondary institution through an adjunct agreement with a secondary school. The intent of this course is to allow students to earn college credit for courses with content that goes beyond that currently approved for high school credit. This course may be used for any dual enrollment course, including a joint program of study involving a postsecondary partnership.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: CTE courses that would help prepare the student for success in this area.

- Credits: 1 semester course, up to 3 credits per semester, May be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- A student should earn at least 3 postsecondary credits for each high school credit. Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

Early Childhood

7160 Principles of Early Childhood Education

PRIN EAR CH ED

This course provides students with an overview of skills and strategies necessary to successfully complete a certificate. Additionally, it provides an overview of the history, theory, and foundations of early childhood education as well as exposure to types of programs, curricula and services available to young children. This course also examines basic principles of child development, Developmentally Appropriate Practices (DAP), importance of family, licensing, and elements of quality care of young children with an emphasis on the learning environment related to health, safety, and nutrition. Students may be required to complete observations and field experiences with children as related to this course.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7158 Early Childhood Education Curriculum

EAR CHD ED CUR

Early Childhood Education Curriculum examines developmentally appropriate environments and activities in various childcare settings while exploring the varying developmental levels and cultural backgrounds of children. Students may be required to complete observations and field experiences with children as related to this course.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Early Childhood Education
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diploma

7159 Early Childhood Education Guidance

EAR CHD ED GD

This course allows students to analyze developmentally appropriate guidance, theory and implementation for various early care and education settings. It also provides a basic understanding of the anti-bias/multicultural emphasis in the field of early childhood. Students

may be required to complete observations and field experiences with children as related to this course.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Early Childhood Education
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diploma

7259 Early Childhood Education Capstone

ERLY CHILD CAP

This course will prepare students to complete the application, CDA exam, and verification process for the Child Development Associate (CDA) credential. Students may also study the physical, social, emotional, cognitive, and moral development of children from conception to age twelve. Theories of child development, biological and environmental foundations, prenatal development, the birth process, and the newborn baby will be discussed. Additionally, students will explore the aspects of early literacy skill development in young children from birth through third grade. Students will explore techniques, technological tools and other learning opportunities that encourage positive attitudes in children regarding listening, speaking, reading and writing activities. In the course, students will research, examine and explore the use of observation in screening and assessment to promote healthy literacy development in early childhood education. Finally, students will be provided an introduction to caring for each exceptional child. This includes theories and practices for producing optimal developmental growth. Students may be required to complete observations and field experiences with children as related to this course.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Early Childhood Education; Early Childhood Curriculum; Early Childhood Guidance
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diploma

Education Careers

7161 Principles of Teaching

PRIN TEACH

This course provides a general introduction to the field of teaching. Students will explore educational careers, teaching preparation, and professional expectations as well as requirements for teacher certification. Current trends and issues in education will be examined. A minimum 20 hour classroom observation experience is required for successful completion of this course.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none

- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7157 Child and Adolescent Development

CHLD ADL DEV

Child and Adolescent Development examines the physical, social, emotional, cognitive, and moral development of the child frm birth through adolescence with a focus on the middle years through adolescence. Basic theories of child development, biological and environmental foundations of development, and the study of children through observation and interviewing techniques are explored. The influence of parents, peers, the school environment, culture and the media are discussed. An observation experience up to 20 hours may be required for completion of this course. This course has been approved to be offered for dual credit. Students pursuing this course for dual credit are still required to meet the minimum prerequisites for the course and pass the course with a C or better in order for dual credit to be awarded.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Teaching
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diploma

7162 Teaching and Learning

TEACH LRN

Teaching and Learning provides students the opportunity to apply many of the concepts that they have learned throughout the Education Professions pathway. In addition to a focus on best practices, this course will provide an introduction to the role that technology plays in the modern classroom. Through hands-on experience with educational software, utility packages, and commonly used microcomputer hardware, students will analyze ways to integrate technology as a tool for instruction, evaluation, and management.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Teaching
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7267 Education Professions Capstone

ED PROF CAP

The Education Professions Capstone provides an extended opportunity for field experience to further apply concepts that have been presented throughout the pathway. Students will also have the opportunity to explore the topics of the exceptional child and literacy development through children’s literature. Students will gain a deeper understanding of inclusive teaching

techniques along with policies, theories, and laws related to special education. Students interested in pursuing a career in Elementary Education are encouraged to also study the benefits of using children's literature in the classroom. This course may be further developed to include specific content for students interested in pursuing a career in secondary education. The course should include a significant classroom observation and assisting experience.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Teaching; Child and Adolescent Development, Teaching and Learning
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diploma

Health Sciences

5272 Introduction to Health Science Careers

INTRO HS CAREERS

Introduction to Health Science Careers is an exploratory course designed to provide students with an opportunity to investigate all aspects of the health science industry. Students will receive an introduction to healthcare systems and examine a variety of pathways in health science, and reflect on their own knowledge, skills and interests, to begin to narrow the areas within health science they want to continue exploring, in preparation for further study in Health Science I

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: Preparing for College and Careers
- Credits: 1 or 2 semester course, 1 credit per semester, maximum of 2 credits
- Counts as a directed elective or elective for all diplomas

5276 Anatomy and Physiology

A & P

Anatomy & Physiology is a course in which students investigate concepts related to Health Science, with emphasis on interdependence of systems and contributions of each system to the maintenance of a healthy body. It introduces students to the cell, which is the basic structural and functional unit of all organisms, and covers tissues, integument, skeletal, muscular and nervous systems as an integrated unit. Through instruction, including laboratory activities, students apply concepts associated with Human Anatomy & Physiology. Students will understand the structure, organization and function of the various components of the healthy body in order to apply this knowledge in all health related fields.

- Recommended Grade(s): 11,12
- Required Prerequisites: none
- Recommended Prerequisites: Biology
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Fulfills a Core 40 Science course requirement for all diplomas

5286 Health Science Education II: Special Topics

HSE II ST

Health Science Education II: Special Topics is an extended laboratory experience designed to address the advancement and specialization of healthcare careers through the provision of a specialized course for a specific healthcare workforce need in the school’s region. Practicum is at a qualified clinical site, and is designed to give the student the opportunity to practice technical skills previously learned in the classroom; all while working under the direction of the appropriately licensed healthcare professional. Throughout the course, students will focus on learning about the healthcare system and employment opportunities at a variety of entry levels; an overview of the healthcare delivery systems, healthcare teams, and legal and ethical considerations; and obtaining the knowledge, skills and attitudes essential for providing basic care in a variety of healthcare settings. Additionally, students will build their essential job related

skills for providing basic care appropriate for their healthcare setting and audience. Course standards and curriculum must be tailored to the specific healthcare profession, preparing students to advance in this career field, and where applicable, provide students with opportunities for certification or dual credit. This course also provides students with the knowledge, attitudes, and skills needed to make the transition from high school, to post-secondary opportunities, and to work in a variety of health science careers. Students are encouraged to focus on self-analysis to aid in their career selection. Job seeking and job maintenance skills, personal management skills, and completion of the application process for admission into a post-secondary program are also areas of focus. Participation in HOSA encourages the development of leadership, communication and career related skills, and opportunities for community service.

- Recommended Grade(s): 12
- Required Prerequisites: none
- Recommended Prerequisites: Health Science Education I; CTE courses that would help prepare the student for success in this area.
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, maximum of 6 credits.
- Counts as a directed elective or elective for all diplomas
- Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

6138 Advanced Career & Technical Education, College Credit: Health Science

ADV CTE CC HSCI

Advanced Career and Technical Education, College Credit is a course title covering any CTE advanced course offered for credit by an accredited post-secondary institution through an adjunct agreement with a secondary school. The intent of this course is to allow students to earn college credit for courses with content that goes beyond that currently approved for high school credit. This course may be used for any dual enrollment course, including a joint program of study involving a postsecondary partnership.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: CTE courses that would help prepare the student for success in this area.
- Credits: 1 semester course, up to 3 credits per semester, May be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- A student should earn at least 3 postsecondary credits for each high school credit. Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

<u>Biomedical Sciences</u>

5218 Principles of Biomedical Sciences

PRIN BIOMED

Principles of the Biomedical Sciences provides an introduction to this field through “hands-on” projects and problems. Student work involves the study of human medicine, research processes and an introduction to bioinformatics. Students investigate the human body systems and various health conditions including heart disease, diabetes, hypercholesterolemia, and infectious diseases. A theme through the course is to determine the factors that led to the death of a fictional person. After determining the factors responsible for the death, the students investigate lifestyle choices and medical treatments that might have prolonged the person’s life. Key biological concepts included in the curriculum are: homeostasis, metabolism, inheritance of traits, feedback systems, and defense against disease. Engineering principles such as the design process, feedback loops, fluid dynamics, and the relationship of structure to function will be included where appropriate. The course is designed to provide an overview of all courses in the Biomedical Sciences program and to lay the scientific foundation necessary for student success in the subsequent courses. NOTE: This course aligns with the PLTW Principles of Biomedical Sciences curriculum. Use of the PLTW Curriculum may require additional training and membership in the PLTW network.

- Recommended Grade(s): 9
- Required Prerequisites: Biology I or concurrent enrollment in Biology I is required
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Fulfills a science requirement for all diplomas
- Counts as a directed elective or elective for all diplomas

5216 Human Body Systems

HUMAN SYST

Human Body Systems is a course designed to engage students in the study of basic human physiology and the care and maintenance required to support the complex systems. Using a focus on human health, students will employ a variety of monitors to examine body systems (respiratory, circulatory, and nervous) at rest and under stress, and observe the interactions between the various body systems. Students will use appropriate software to design and build systems to monitor body functions. NOTE: This course aligns with the PLTW Human Body Systems curriculum. Use of the PLTW Curriculum may require additional training and membership in the PLTW network.

- Recommended Grade(s): 10
- Required Prerequisites: Principles of Biomedical Sciences
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Fulfills a science requirement for all diplomas

5217 Medical Interventions

MED INTERV

Medical Interventions is a course that studies medical practices including interventions to support humans in treating disease and maintaining health. Using a project-based learning approach, students will investigate various medical interventions that extend and improve quality of life, including gene therapy, pharmacology, surgery, prosthetics, rehabilitation, and supportive care. Students will also study the design and development of various interventions. Lessons will cover the history of organ transplants and gene therapy with additional readings from current scientific literature addressing cutting edge developments. NOTE: This course aligns with the PLTW Medical Interventions curriculum. Use of the PLTW Curriculum may require additional training and membership in the PLTW network.

- Recommended Grade(s): 11
- Required Prerequisites: Principles of Biomedical Sciences
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Fulfills a science requirement for all diploma types

5219 Biomedical Innovations

BIO INN

Biomedical Innovation is a capstone course designed to give students the opportunity to design innovative solutions for the health challenges of the 21st Century as they work through progressively challenging open-ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering, and public health. Students have the opportunity to work on an independent project and may work with a mentor or advisor from a healthcare or post-secondary industry. Throughout the course, students are expected to present their work to an adult audience that may include representatives from the local business and healthcare community. NOTE: This course aligns with the PLTW Biomedical Innovations curriculum. Use of the PLTW Curriculum may require additional training and membership in the PLTW network.

- Recommended Grade(s): 12
- Required Prerequisites: Principles of Biomedical Sciences; Human Body Systems or Anatomy and Physiology; Medical Interventions
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

Healthcare Specialist:

7168 Principles of Healthcare

PRIN HLCR

Principles of Healthcare content includes skills common to specific health career topics such as patient nursing care, dental care, animal care, medical laboratory, public health, and an introduction to healthcare systems. Lab experiences are organized and planned around the activities associated with the student's career objectives.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5274 Medical Terminology

MED TERMS

Medical Terminology prepares students with language skills necessary for effective, independent use of health and medical reference materials. It includes the study of health and medical abbreviations, symbols, and Greek and Latin word part meanings, all taught within the context of body systems. This course builds skills in pronouncing, spelling, and defining new words encountered in verbal and written information in the healthcare industry. Students have the opportunity to acquire essential skills for accurate and logical communication, and interpretation of medical records. Emphasis is on forming a foundation of a medical vocabulary including; appropriate and accurate meaning, spelling, and pronunciation of medical terms, and abbreviations, signs, and symbols.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, maximum of 2 credits
- Counts as a Directed Elective or Elective for all diplomas

7166 Healthcare Specialist: CNA

HC SPEC CAN

The Healthcare Specialist: CNA prepares individuals desiring to work as nursing assistants with the knowledge, skills and attitudes essential for providing basic care in extended care facilities, hospitals and home health agencies under the direction of licensed nurses. The course will introduce students to the disease process and aspects of caring for a long-term care resident with dementia. Individuals who successfully complete this course are eligible to apply to sit for the Indiana State Department of Health (ISDH) certification exam for nursing assistants. This course meets the minimum standards set forth by the ISDH for Certified Nursing Assistant training and for health care workers in long-term care facilities.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Healthcare
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7164 Certified Clinical Medical Assistant (CCMA)

CERT CL MED AST

The Certified Clinical Medical Assistant course will prepare students for the National Healthcare Association CCMA exam. Instruction includes taking and recording vital signs, preparing patients for examination, patient education, and assisting the physician during the exam. The collecting and preparation of laboratory specimen and basic laboratory test will be covered. Prepares for the administration of medication, venipuncture, ECG, and wound care. Provides a basic understanding of the clinical and administrative duties and responsibilities pertinent to medical offices. Includes instruction in medical correspondence and records, case histories of patients, filing, telephone procedures, appointment scheduling, receptionist duties, and processing mail. Written, verbal and nonverbal communications according to patient needs are covered as well as documentation and associated legal and ethical boundaries.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Healthcare; Medical Terminology
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools are strongly encouraged to offer the CCMA course along with Principles of Healthcare and Medical Terminology as part of a 3 period block of time.

7165 Emergency Medical Tech

EMT

This course is based on the training program developed by the Department of Transportation and the Emergency Medical Services Commission of Indiana. It covers theories, techniques and operational aspects of pre-hospital emergency care within the scope and responsibility of the emergency medical technician (EMT). It requires laboratory practice and clinical observation in a hospital emergency room and ambulance. Successful completion of the course meets national requirements to test for certification as an NREMT.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Healthcare; and Medical Terminology
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools are strongly encouraged to offer the EMT course along with Principles of Healthcare and Medical Terminology as part of a 3 period block of time.

7255 Healthcare Specialist Capstone

HC SPEC CAP

The capstone course will provide Healthcare students acquire additional knowledge and skills necessary to work in a variety of health care settings beyond a long term care facility, including hospitals, doctor’s offices and clinics. Students can accomplish this goal by completing coursework that will cover topics such as Medical Law and Ethics, Electronic Health Records, and/or Behavioral Health. Schools may offer additional healthcare certifications such as the

Certified Clinical Medical Assistant or Phlebotomy along with the coursework or in place of the coursework.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Healthcare; Medical Terminology; Healthcare Specialist: CNA, EMT or Certified Clinical Medical Assistant (CCMA)
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- Counts as a Directed Elective or Elective for all diplomas

7167 Pharmacy Tech

PHARM TECH

This course introduces the student to the foundational principles, career concepts, and entry-level skills and duties typically performed by a pharmacy technician in community/retail, hospital/health system, and other pharmacy practice settings. Classroom and lab activities provide opportunities for demonstration of knowledge, understanding, and proficiency in technical and customer service applications related to the role and scope of practice of a pharmacy technician. Essential pharmacy calculations are presented with emphasis on the development of problem-solving skills for safe pharmacy practices.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Healthcare
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course
- Counts as a science credit

7310 Pharmacy Capstone

PHARM TECH CAP

The Pharmacy Capstone courses builds upon the foundational knowledge learned in the Pharmacy Tech course. In addition to advanced pharmacology and dispensing labs, students will also explore Pharmacy law and ethics. Time is built into the capstone course to allow students to complete their practicum as well.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Healthcare; Medical Terminology; Pharmacy Tech
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credit per semester, 6 credits maximum
- Counts as a directed elective or elective for all diplomas

7163 Central Service Technician Fundamentals

CEN SER TEC FUN

This course introduces students to the field of central service and prepares students to identify surgical instruments by category type and use. Students will learn the principles and importance of the flow of material along with the environmental control factors affecting the central service department. The student will differentiate between equipment management systems and compare out-sourcing and insourcing.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Healthcare
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, maximum of 2 credits
- Counts as a directed elective or elective for all diplomas

7257 Central Service Technician Capstone

CENT SRV TECH CAP

Central Services Technician Capstone course emphasizes the practice of sterilization skills that have been learned in previous courses. Students will focus on high and low sterilization methods. Students will differentiate between the various sterilization methods. Students will learn the protocol for control infection and the spread of blood borne pathogens. Additionally this course will provide students the opportunity to complete practical hours toward the hours required to complete the International Association of Healthcare Central Services Material Management Certification Exam.

- Recommended Grade(s):
- Required Prerequisites:
- Recommended Prerequisites:
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a directed elective or elective for all diplomas

Dental Careers

7315 Principles of Dental Careers

PRIN DENT CAR

Principles of Dental Careers will provide the foundational knowledge and skills necessary to pursue a career in the Dental Field. A focus will be placed on the role of the modern dental assistant and will cover key pre-clinical prcedures and beginning dental terminology.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7316 Dental Careers Fundamentals

DENT CAR FUND

Dental Careers Fundamentals will build upon the knowledge and skills in the principles course. Students will understand and practice beginning chairside functions of the Dental Assistant along with a focus on the Anatomy and Physiology of the head, neck and oral cavity. Students will also study tooth anatomy, physiology and morphology. This part of the program will prepare students for the Anatomy, Morphology, and Physiology exam of the NELDA certification.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Dental Careers
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7317 Advanced Dental Careers

ADV DENT CAR

Advanced Dental Careers Fundamentals will build upon the knowledge and skills developed in the first two courses. Students will study more advanced chairside assisting functions along with advanced infection control techniques. Additionally students will explore preventive dentistry practices and dental emergencies. This course will prepare students for the ICE exam of the NELDA certification.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Dental Careers; Dental Careers Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7318 Dental Careers Capstone

DENT CAR CAP

Dental Careers capstone will provide the opportunity for increased skill development in clinical support through work-based learning experiences. Students will also prepare for the Radiation, Health and Safety which is third and final part of the NELDA certification. The capstone course may also provide the opportunity to review and prepare for the entire NELDA certification.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Dental Careers; Dental Careers Fundamentals; Advanced Dental Careers
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

<u>Exercise Science/Physical Therapy</u>

7320 Principles of Exercise Science

PRIN EXER SCI

Principles of Exercise Science provides an introduction to the science of exercise and human movement. Special topics include exercise physiology, sport biomechanics, sports medicine, and motor integration. Additionally, the course will examine career options in sport, health and wellness, education, and the medical fields like personal trainer, athletic training and physical therapy.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7321 Kinesiology

KINESIO

Kinesiology will study fundamental concepts concerning the interaction of biological and mechanical aspects of the musculoskeletal and neuromuscular structures. An emphasis on practical applications of the concepts will be accomplished through an introduction to fitness training methods and modalities for developing specific conditioning effects in individuals. Laboratory sessions focus on anatomy and physiology of the musculoskeletal system and cardiovascular system, theories on fitness programming, and injury avoidance in fitness environments.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Exercise Science
- Recommended Prerequisites: Anatomy and Physiology
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Counts as a science credit

7322 Human Performance

HUM PERF

Students will learn basic human physiology relating to exercise, and how the body adapts to acute and chronic physical activity. Systems covered include cellular metabolic processes, energy systems, and the effects of exercise on the respiratory, nervous, cardiovascular, endocrine, skeletal, and muscular systems. The course will also study the basic nutritional principles needed for optimal athletic and human performance.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Exercise Science
- Recommended Prerequisites: Kinesiology
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7323 Physical Therapy Capstone

PHYS THER CAP

The Physical Therapy Capstone course is designed to provide students the opportunity to explore the role of a physical therapy assistant and to practice technical skills previously learned in the classroom. It prepares students with the knowledge, skills and attitudes essential for providing basic care in extended care facilities, hospitals and home health agencies under the direction of licensed Physical Therapists. In addition students will learn skills specific to physical therapy including observing patients progress, helping patients do specific exercises, using massage and stretching for treatment, aiding patients with devises for movement, educating patient and families, as well as basic assisting in cleaning treatment areas and clerical work.

- Recommended Grade(s): 11. 12
- Required Prerequisites: Principles of Exercise Science; Kinesiology; Human Performance; or Any Healthcare Specialist CTE Concentrator Sequence EMT, CNA, CCMA
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Counts as a science credit

7324 Fitness Management Capstone

FIT MGMT CAP

The Fitness Management Capstone course will focus on the knowledge and skills needed to be a personal trainer. This course will focus on the fundamental concepts in personal training for healthy, general populations including topics of group fitness instruction and the principles and skills involved in the management within the the health and fitness industry.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Exercise Science; Kinesiology; Human Performance
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

Hospitality and Human Services

5438 Introduction to Culinary Arts and Hospitality

INT CUL HOS

Introduction to Culinary Arts and Hospitality is recommended for all students regardless of their career cluster or pathway, in order to build basic culinary arts knowledge and skills. It is especially appropriate for students with an interest in careers related to Hospitality, Tourism, and Culinary Arts. A project-based approach that utilizes higher order thinking, communication, leadership, and management processes is recommended. Topics include basic culinary skills in the foodservice industry, safety and sanitation, nutrition, customer relations and career investigation. Students are able to explore this industry and examine their own career goals in light of their findings. Laboratory experiences that emphasize industry practices and develop basic skills are required components of this course.

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: Nutrition and Wellness; Advanced Nutrition and Wellness
- Credits: 1-2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

6120 Advanced Career & Technical Education, College Credit: Hospitality and Human Services

ADV CTE CC HHS

Advanced Career and Technical Education, College Credit is a course title covering any CTE advanced course offered for credit by an accredited post-secondary institution through an adjunct agreement with a secondary school. The intent of this course is to allow students to earn college credit for courses with content that goes beyond that currently approved for high school credit. This course may be used for any dual enrollment course, including a joint program of study involving a postsecondary partnership.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: CTE courses that would help prepare the student for success in this area.
- Credits: 1 semester course, up to 3 credits per semester, May be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- A student should earn at least 3 postsecondary credits for each high school credit. Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

6152 Hospitality and Human Services: Special Topics

HHS ST

Hospitality and Human Services: Special Topics is an extended learning experience designed to address the advancement and specialization of careers within the career cluster through the provision of a specialized course for a specific workforce need in the school's region. The learning experience is at a qualified site, and is designed to give the student the opportunity to learn and practice technical skills; while working under the direction of the appropriately licensed professional. Throughout the course, students will focus on learning about employment opportunities and obtaining the knowledge, skills and attitudes essential for success in specific occupations. Course standards and curriculum must be tailored to the specific profession, preparing students to advance in this career field, and where applicable, provide students with opportunities for certification or dual credit. Participation in a related CTSO encourages the development of leadership, communication and career related skills, and opportunities for community service.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: CTE courses that would help prepare the student for success in this area.
- Credits: 1 semester course, up to 3 credits per semester, May be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

Culinary Arts

7173 Principles of Culinary and Hospitality

PRIN HOSP

Principles of Culinary and Hospitality is designed to develop an understanding of the hospitality industry and career opportunities, and responsibilities in the food service and lodging industry. Introduces procedures for decision making which affects operation management, products, labor, and revenue. Additionally, students will learn the fundamentals of food preparation, basic principles of sanitation, service procedures, and safety practices in the food service industry including proper operation techniques for equipment.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7171 Nutrition

NUTR

Nutrition students will learn the characteristics, functions and food sources of the major nutrient groups and how to maximize nutrient retention in food preparation and storage. Students will be made aware of nutrient needs throughout the life cycle and to apply those principles to menu planning and food preparation. This course will engage students in hands-on learning of nutritional concepts such as preparing nutrient dense meals or examining nutritional needs of student athletes

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Culinary and Hospitality
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7169 Culinary Arts

CUL ARTS

Culinary Arts teaches students how to prepare the four major stocks, the five mother sauces (in addition to smaller sauces) and various soups. Additional emphasis is placed on the further development of the classical cooking methods. This course will also present the fundamentals of baking science including terminology, ingredients, weights and measures, and proper use and care of equipment. Students will produce yeast goods, pies, cakes, cookies, and quick breads.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Culinary and Hospitality
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7235 Baking and Pastry Capstone

BAKE PSTRY CAP

The objective of this course is to help students understand the science of baking and the different reactions that take place based on the ingredients, temperatures, and equipment in relation to the final product. The course requires students to produce and finish a variety of cakes. The course emphasizes application techniques, color coordination, and the flavor and texture of fillings. Students will practice the techniques of basic cake decorating.This course will also address classical French and European desserts, including the preparation of goods such as Napoleons, Gateau St. Honoré, petit fours and petit fours sec, ganaches, pastry creams and fillings, sauces, flans and tarts, and European sponges. The course also includes instruction in tempering of chocolates, molding, and chocolate plastique, preparation of truffles, pastillage and marzipan, short doughs, and meringues. The student will be instructed in the latest preparation methods, innovative ideas for impressive plate presentations, and techniques that utilize specialized equipment and tools to make high-tech, novel creations

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Culinary and Hospitality; Nutrition; Culinary Arts
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- Counts as a Directed Elective or Elective for all diplomas

7233 Culinary Arts Capstone

CUL ARTS CAP

This course covers the techniques and skills needed in breakfast cookery as well as insight into the pantry department. Various methods of preparation of eggs, pancakes, waffles and cereals will be discussed. Students will receive instruction in salad preparation, salad dressing, hot and cold sandwich preparation, garnishes and appetizers. This course also covers the necessary skills for proper recruiting, staffing, training, and management of employees at various levels. The course will help prepare the student for the transition from employee to supervisor. Additionally, it will help the student evaluate styles of leadership, and develop skills in human relations and personnel management.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Culinary and Hospitality; Nutrition; Culinary Arts
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- Counts as a Directed Elective or Elective for all diplomas

Hospitality Management

7172 Hospitality Management

HOSP MAN

Hospitality Management prepares students for employment in the hospitality industry. It provides the foundations for study in higher education that leads to a full spectrum of hospitality careers. This is a broad-based course that introduces students to all segments of hospitality, what it includes, and career opportunities that are available; provides a survey of management functions, highlighting basic theories and facts; and exposes students to current trends and current events within the industry. Three major goals of this course are for students to be able to identify current trends in hotel and restaurant management, distinguish the difference between hospitality and tourism, and state differences in front of the house versus back of the house.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Culinary and Hospitality
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7237 Hospitality Management Capstone

HOSP MGMT CAP

This course presents the essentials of effective food and beverage control while establishing systems for sale values of food and beverages that are outlined. This course addresses the application of the four-step control process to the primary phases of foodservice operations: purchasing, receiving, storing, issuing and production. Labor costs and sales forecasting are analyzed. This course is also opportunity for the Intermediate Hospitality student to acquire valuable field experience by working the Hospitality Manager supervision. The student keeps a journal and prepares a report of their experience at the end of the course.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Culinary and Hospitality; Nutrition; Hospitality Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- Counts as a Directed Elective or Elective for all diplomas

Nutrition Sciences

7170 Nutrition Planning and Therapy

NUTR PL TRPY

This course presents the basic principles of nutrition; the role nutrients play in maintaining good health as well as their effect on certain disease states. Students will learn to modify diets to meet various nutritional needs and to plan menus using modified diet principles. This course teaches students to develop an in-depth understanding of the principles of diet therapy. Students will learn to assess patients' nutritional needs, develop care plans, and implement a delivery system. Students will also learn documentation skills required by Centers for Medicare and Medicaid Services (CMS).

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Culinary and Hospitality; Nutrition
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a science credit

7239 Nutrition Science Capstone

NUT SCI CAP

This course offers practical experience in a health care facility monitored by a Registered Dietician in order to build specialized skills. This work-based experience provides an opportunity for students to transfer their academic preparation into actual work-based learning by acquiring "real world" skills and building ties with the healthcare community. Student must complete 150 hours of field experience. (Students should have a site in mind prior to registering for this course--coordinator will assist.)

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Culinary and Hospitality; Nutrition; Nutrition Planning and Therapy

- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- Counts as a Directed Elective or Elective for all diplomas

Cosmetology and Barbering

7175 Introduction to Cosmetology and Barbering

INT COS BARB

The Introduction to Cosmetology and Barbering course will provide students the opportunity to explore various aspects of Cosmetology and Barbering careers and business practices. In addition, students will gain an understanding of the variety of services provided by a salon including hairstyling, skin care, and nail care.

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7330 Principles of Barbering and Cosmetology

PRIN COSMO

Principles of Barbering and Cosmetology offers an introduction to cosmetology with emphasis on basic practical skills and theories including roller control, quick styling, shampooing, hair coloring, permanent waving, facials, manicuring, business and personal ethics, and bacteriology and sanitation. Successful completion of the course requires at least 375 Cosmetology studio hours.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Principles and Fundamentals should be concurrently enrolled if offering for Dual Credits. This course may require extended hours of participation in order to meet the 1500 hours required for the Cosmetology and Barbering exams.

7331 Barbering and Cosmetology Fundamentals

COSMO FUND

Barbering and Cosmetology Fundamentals focuses on the development of practical skills introduced in Principles of Barbering and Cosmetology. Clinical application and theory in the science of barbering and cosmetology are introduced. Successful completion of the course requires at least 375 Cosmetology studio hours.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Barbering and Cosmetology

- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Principles and Fundamentals should be concurrently enrolled. This course may require extended hours of participation in order to meet the 1500 hours required for the Cosmetology and Barbering exams.

7332 Advanced Cosmetology

ADV COSMO

Advanced Cosmetology will emphasize the development of advanced skills in styling, hair coloring, permanent waving, facials, manicuring, chemical texturizing, and hair cutting techniques. Students will also further study anatomy and physiology as it applies to hair care professions. Successful completion of the course requires at least 375 studio hours.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Barbering and Cosmetology; Barbering and Cosmetology Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- This course should be coenrolled with TSD. This course may require extended hours of participation in order to meet the 1500 hours required for the Cosmetology and Barbering exams.

7333 Advanced Barbering

ADV BARB

Advanced Barbering is a course with a focus particulary on barbering styles and techniques. The emphasis will be toward the development of advanced skills in styling, hair coloring, permanent waving, facials and facial hair care. Students will also study anatomy and physiology as it applies to cosmetology. Upon completion of the course requirements, the students will be able to Perform basic manipulative skills including haircutting, hairstyling, perming, shaving, treatment of the skin and scalp, salon management, license laws, sanitation and retain knowledge relating to the history of barbering. Successful completion of the course requires at least 375 Cosmetology studio hours.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Barbering and Cosmetology; Barbering and Cosmetology Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

- This course should be coenrolled with TSD. This course may require extended hours of participation in order to meet the 1500 hours required for the Cosmetology and Barbering exams.

7334 Barbering and Cosmetology Capstone

COSMO CAP

Barbering and Cosmetology Capstone builds and improves previously developed skills with emphasis on developing individual techniques. Professionalism, shop management, psychology in relation to barbering and cosmetology, and preparation for state board examination are stressed. Successful completion of the course requires at least 375 studio hours.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Barbering and Cosmetology; Barbering and Cosmetology Fundamentals; Advanced Cosmetology or Advanced Barbering
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- This course may require extended hours of participation in order to meet the 1500 hours required for the Cosmetology and Barbering exams.

<u>Human and Social Services</u>

7176 Principles of Human Services

PRIN HUM SERV

Principles of Human Services explores the history of human services, career opportunities, and the role of the human service worker. Focuses on target populations and community agencies designed to meet the needs of various populations. The course includes a required job shadowing project in a Human Services setting (a suggested four-hour minimum to meet Ivy Tech requirements). This course will also encourage cultural awareness and appreciation of diversity. Focuses on cultural variations in attitudes, values, language, gestures, and customs. Includes information about major racial and ethnic groups in the United States.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7174 Understanding Diversity

UND DIV

Understanding Diversity encourages cultural awareness and appreciation of diversity. Focuses on cultural variations in attitudes, values, language, gestures, and customs. Includes information about major racial and ethnic groups in the United States.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Human Services
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7177 Relationships and Emotions

REL EMO

Relationship & Emotions examines the key elements of healthy relationships. Explores the main problems that damage relationships. Presents research findings on successful and unsuccessful relationships, and emotional connections. Explores the impact of one's emotional and relationship history on current and future romantic relationships. Presents practical, scientific-based skills for improving relationships. Additionally, this course offers practical and useful information for people who have experienced loss. Students have the opportunity to evaluate their own experiences and attitudes toward loss and grief.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Human Services
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7241 Human Services Capstone

HUM SRV CAP

This course provides opportunities to increase effectiveness in helping people. Examines the helping process in terms of skills, helping stages, and issues involved in a helping relationship. This course also introduces and develops basic interviewing skills. Includes assessment strategies and treatment planning. This course provides basic information about the problems of alcohol and other drug abuse. Explores symptoms and effects of abuse and dependence on individuals, families, and society Additionally, this course studies group dynamics, issues and behavior. Includes group functioning and leadership, guidelines on working effectively with a co-leader, and practical ways of evaluating the group processes. It provides an overview of legal and ethical aspects in the field of human services with implications for the human service worker. Includes topics such as confidentiality, rights of clients, client records, equal protection for staff and clients, and discrimination. The Human Service Ethical Code and related codes are covered with an overview of ethical dimensions of practice.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Relationships & Emotions; Understanding Diversity
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- Counts as a Directed Elective or Elective for all diplomas

Information Technology

4578 Information Technology: Special Topics

IT ST

Information Technology: Special Topics is an extended learning experience designed to address the advancement and specialization of careers within the career cluster through the provision of a specialized course for a specific workforce need in the school's region. The learning experience is at a qualified site, and is designed to give the student the opportunity to learn and practice technical skills; while working under the direction of the appropriately licensed professional. Throughout the course, students will focus on learning about employment opportunities and obtaining the knowledge, skills and attitudes essential for success in specific occupations. Course standards and curriculum must be tailored to the specific profession, preparing students to advance in this career field, and where applicable, provide students with opportunities for certification or dual credit. Participation in a related CTSO encourages the development of leadership, communication and career related skills, and opportunities for community service.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Computer Science
- Credits: 1 semester course, up to 3 credits per semester, May be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

6022 Advanced Career & Technical Education, College Credit: Information Technology

ADV CTE CC IT

Advanced Career and Technical Education, College Credit is a course title covering any CTE advanced course offered for credit by an accredited post-secondary institution through an adjunct agreement with a secondary school. The intent of this course is to allow students to earn college credit for courses with content that goes beyond that currently approved for high school credit. This course may be used for any dual enrollment course, including a joint program of study involving a postsecondary partnership.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: CTE courses that would help prepare the student for success in this area.
- Credits: 1 semester course, up to 3 credits per semester, May be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- A student should earn at least 3 postsecondary credits for each high school credit. Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

4803 Introduction to Computer Science

INTO CS

Introduction to Computer Science allows students to explore the world of computer science. Students will gain a broad understanding of the areas composing computer science. Additionally, there is a focus on the areas of computer programming, gaming/mobile development, and artificial intelligence/robotics.

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5252 Computer Science: Special Topics

CS III SP TOP

Computer Science III: Special Topics is an extended experience designed to address the advancement and specialization of computer science careers allowing schools to provide a specialized course for a specific computer science workforce need in the school's region. It prepares students with the knowledge, skills and attitudes essential for working in the field of computer science. Course standards and curriculum must be tailored to the specific computer science specialization. This course must prepare students for advancement in this career field and should provide students with opportunities for certification or dual credit.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: CTE courses that would help prepare the student for success in this area.
- Credits: 1 semester course, up to 3 credits per semester, May be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.
- Formerly Computer Science III: Special Topics

7396 Advanced Digital Skills Capstone

DIG SKILL CAP

Digital Skills Capstone introduces digital skills and tools critical to manage information. The skills learned in this class will help individuals communicate and collaborate, develop and share digital content, and problem solve. This course will focus on applying advanced digital skills to a particular industry or occupation. The focus will be on advanced IT skills in programming, web, and app development, networking and sharing information, data science, and digital business analysis.

- Recommended Grade(s): 12
- Required Prerequisites: Any CTE Concentrator Sequence except the Information Technology or Computer Science pathways
- Recommended Prerequisites: Earn CTE Concentrator Status in any CTE program or program of study.
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a directed elective or elective for all diplomas

7183 Principles of Computing

PRIN COMP INFO

Principles of Computing provides students the opportunity to explore how computers can be used in a wide variety of settings. The course will begin by exploring trends of computing and the necessary skills to implement information systems. Topics include operating systems, database technology, cybersecurity, cloud implementations and other concepts associated with applying the principles of good information management to the organization. Students will also have the opportunity to utilize basic programming skills to develop scripts designed to solve problems. Students will learn about algorithms, logic development and flowcharting.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Computer Science; Completed or Co-Enrolled in Algebra I
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course
- Counts as a science credit

IT Operations

7180 Information Technology Fundamentals

INFO TECH FUN

Information Technology Fundamentals provides the necessary competencies required for an entry-level Information Technology professional. Students will have the knowledge required to assemble components based on customer requirements, install, configure and maintain devices/software for end users, understand the basics of networking and security, properly and safely diagnose, resolve and document common hardware and software issues while applying troubleshooting skills. Students will also learn appropriate customer support, understand the basics of virtualization, desktop imaging, and deployment. This course should also prepare students for the CompTia A+ Certification Exam.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Computing
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7181 Networking and Cybersecurity Operations

INFO TEC SUP SER

Advanced Information Technology will provide students with the fundamental concepts in networking and cybersecurity. Students are introduced to the principles and concepts of computer networking, covering the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. Students will be able to troubleshoot routers and switches and resolve common issues. The students will also explore the field of Cyber Security/Information Assurance focusing on the technical and managerial aspects of the discipline. Students will be introduced to the basic terminology, concepts, and best practices of computer/network security and the roles and responsibilities of management/security personnel. The students will learn the technologies used and techniques involved in creating a secure computer networking environment including authentication and the types of attacks against an organization.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Computing; Information Technology Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a science credit

7249 IT Operations: Cybersecurity Operations Capstone

CYBER OPER CAP

Cybersecurity Operations Capstone course introduces the core security concepts and skills needed to monitor, detect, analyze and respond to cybercrime, cyberespionage, insider threats, advanced persistent threats, regulatory requirements, and other cybersecurity issues facing organizations. It emphasizes the practical application of the skills needed to maintain and ensure security operational readiness of secure networked systems through an in-depth coverage of network protocols and ethical hacking. Through hands-on instruction students will be prepared to interact with TCP/IP on the vast majority of networks in use today and learn threats and defense mechanisms. The skills developed in the curriculum prepares students for a career in the rapidly growing area of cybersecurity operations.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Computing; Information Technology Fundamentals; Networking and Cybersecurity Operations
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7247 IT Operations: Cloud and Server Operations Capstone

CLD SRV OPER CAP

Cloud and Server Operations Capstone provides students with the general understanding of cloud computing concepts through a detailed overview of core services security architecture, pricing and support. Students will also learn to implement, administer, and troubleshoot Information systems using the Microsoft Windows clients and servers in an enterprise environment. Students will be introduced to managing applications, files, folders, and devices in a Windows active directory enrvironment. Additionally students have the chance to understand and apply Linux and Virtualization concepts.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Computing; Information Technology Fundamentals; Networking and Cybersecurity Operations
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7245 IT Operations: IT Support Capstone

IT SUPP CAP

IT Support Capstone students will acquire the skills and knowledge needed to provide tier 1 technical support services. The student will learn troubleshooting and problem solving in working with end users using various digital tools such as helpdesk software, knowledge bases, ticket management systems, and other tier 1 computer related support services. Students will also learn to implement, administer, and troubleshoot Information systems using the Microsoft

Windows clients and servers in an enterprise environment. Students will be introduced to managing applications, files, folders, and devices in a Windows active directory enrvironment. Additionally students have the chance to understand and apply Linux and Virtualization concepts.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Computing; Information Technology Fundamentals; Networking and Cybersecurity Operations
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

Networking

7182 Networking Fundamentals

NTWK FUN

Networking Fundamentals describes, explores and demonstrates how a network operates in our everyday lives. The course covers the technical pieces and parts of a network and also societal implications such as security and data integrity. Using hands-on lab work, this course offers students the critical information needed for a role as an Information Technology professional who support computer networks. Concepts covered include the TCP/IP model, OS administration, designing a network topology, configuring the TCP/IP protocols, managing network devices and clients, configuring routers and switches, wireless technology and troubleshooting. Provides students the ability to implement, administer, and troubleshoot information systems that incorporate the Microsoft Windows clients and servers in an enterprise environment. Students will be introduced to managing applications, files, folders, and devices in a windows active directory environment.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Computing; Information Technology Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7251 Networking Capstone

NETWK CAP

Networking Capstone includes hands-on lab work, and a wide array of assessment types and tools. The course covers the architecture, components, and operations of routers and switches in small networks and introduces wireless local area networks (WLAN) and security concepts. Students learn how to configure and troubleshoot routers and switches for advanced functionality using security best practices and resolve common issues with protocols in both IPv4 and IPv6 networks. The course also emphasizes network security concepts and introduces network virtualization and automation. Students learn how to configure, troubleshoot, and secure enterprise network devices and understand how application programming interfaces (API) and configuration management tools enable network automation.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Computing; Information Technology Fundamentals; Networking Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

Cybersecurity

7179 Cybersecurity Fundamentals

CYBSEC FUN

This course introduces fundamental networking protocols and their hierarchical relationship in the context of conceptual Information Communication Technology (ICT) frameworks. Students will learn how networked hosts and applications communicate across networks. Emphasis is placed on security throughout the entire SDLC (Systems Development Life Cycle).

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Computing
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a science credit

7178 Advanced Cybersecurity

ADV CYBSEC

Students will acquire the fundamentals of information and data security and understand the vulnerability most organizations have in their security systems with an emphasis on firewalls, security plans and Virtual Private Networks (VPNs). Discussions will include data security methods, authentication, network attacks, malicious code and viruses, wireless security, e-mail and web security and disaster recovery. This course will also focus on the managerial aspects of information security and assurance. Topics covered include access control models, information security governance, and information security program assessment and metrics. Coverage on the foundational and technical components of information security is included to reinforce key concepts, such as security planning and contingencies, security policies, security management models and practices and ethics.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Computing; Cybersecurity Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7243 Cybersecurity Capstone

CYBER CAP

The Cybersecurity Capstone is designed to increase a student's ability to investigate advanced topics with a primary focus on computer forensics, cyber law, cybercrimes, and cyber forensics. Using Federal, State, and existing case laws, students will gain in-depth experience investigating and gathering evidence to prepare for a presentation in a court of law. This course will emphasize the need for structured investigation techniques and proper protocol for maintaining a chain of evidence. Students will learn to follow proper investigative procedures while using a variety of forensic software tools and techniques.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Computing; Cybersecurity Fundamentals; Advanced Cybersecurity
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

Software Development

7185 Website and Database Development

WEB DATA DEV

Website and Database Development will provide students a basic understanding of the essential Web and Database skills and business practices that directly relate to Internet technologies used in Web site and Database design and development. Students will learn to develop Web sites using Hypertext Markup Language (HTML) and Cascading Style Sheets (CSS). Additionally students will be introduced to the basic concepts of databases including types of databases, general database environments, database design, normalization and development of tables, queries, reports, and applications. Students will be familiarized with the use of ANSI Standard Structured Query Language. Students will be introduced to data concepts such as data warehousing, data mining, and BIG Data. Students will develop a business application using database software such as Microsoft Access.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Computing
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course
- Counts as a science credit

7184 Software Development

SOFT DEV

Software Development introduces students to concepts and practices of programming languages and software development. Students are introduced to algorithms and development tools used to document/implement computer logic. Discusses the history of software development, the different types of programming such as real time processing, web/database applications, and different program development environments. Concepts will be applied using

different programming languages, and students will develop and test working programs in an integrated system.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Computing
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course
- Counts as a science credit

7253 Software Development Capstone

SW DEV CAP

Software Development Capstone provides a basic understanding of the fundamental concepts involved when using an object oriented programming language. The emphasis is on logical program design using a modular approach involving task-oriented program functions. Object-oriented concepts such as methods, attributes, inheritance, exception handling, and polymorphism are utilized. Applications are developed using these concepts and include developing a graphical user interface, selecting forms and controls, assigning properties and writing code. Students will also build upon their web design experiences in previous courses by taking an in-depth look into client- and server-side scripting aspects including Java Script and PHP: hypertext preprocessor along with other scripting tools.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Computing; Website and Database Development; Software Development
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

<u>Computer Science</u>

7351 Topics in Computer Science

TOP COMP SCI

Topics in Computer Science is designed for students to investigate emerging disciplines within the field of computer science. Students will use foundational knowledge from 7183 Principles of Computing to study the areas of data science, artificial intelligence, app/game development, and security. Students will utilize knowledge related to these areas and programming skills to develop solutions to authentic problems.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Computing
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum

- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course
- Counts as a science credit

7352 Computer Science

COMP SCI

Computer Science introduces the fundamental concepts of procedural programming. Topics include data types, control structures, functions, arrays, files, and the mechanics of running, testing, and debugging. The course also offers an introduction to the historical and social context of computing and an overview of computer science as a discipline.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Computing
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a science credit
- Counts as a quantitative reasoning course
- The AP Computer Science A curriculum may be used to complete the competencies required for this course.

7353 Computer Science Capstone

COMP SCI CAP

Computer Science Capstone provides a working understanding of the fundamentals of procedural and object-oriented program development using structured, modular concepts and modern object-oriented programming languages. Reviews control structures, functions, data types, variables, arrays, and data file access methods. The course is a second level computer science course introducing object oriented computer programming, using a language such as Java or C++. Object-oriented concepts studied include classes, objects, inheritance, polymorphism, operator overloading, exception handling, recursion, abstract data types, streams and file I/O. Students will explore programming concepts such as software reuse, data abstraction and event-driven programming.

- Recommended Grade(s): 12
- Required Prerequisites: Principles of Computing; Topics in Computer Science; Computer Science
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credit per semester, 6 credits maximum
- Counts as a directed elective or elective for all diplomas

Public Safety

6136 Advanced Career & Technical Education, College Credit: Public Safety

ADV CTE CC PS

Advanced Career and Technical Education, College Credit is a course title covering any CTE advanced course offered for credit by an accredited post-secondary institution through an adjunct agreement with a secondary school. The intent of this course is to allow students to earn college credit for courses with content that goes beyond that currently approved for high school credit. This course may be used for any dual enrollment course, including a joint program of study involving a postsecondary partnership.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: CTE courses that would help prepare the student for success in this area.
- Credits: 1 semester course, up to 3 credits per semester, May be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- A student should earn at least 3 postsecondary credits for each high school credit. Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

6154 Public Safety: Special Topics

PS ST

Public Safety: Special Topics is an extended learning experience designed to address the advancement and specialization of careers within the career cluster through the provision of a specialized course for a specific workforce need in the school's region. The learning experience is at a qualified site, and is designed to give the student the opportunity to learn and practice technical skills; while working under the direction of the appropriately licensed professional. Throughout the course, students will focus on learning about employment opportunities and obtaining the knowledge, skills and attitudes essential for success in specific occupations. Course standards and curriculum must be tailored to the specific profession, preparing students to advance in this career field, and where applicable, provide students with opportunities for certification or dual credit. Participation in a related CTSO encourages the development of leadership, communication and career related skills, and opportunities for community service.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, up to 3 credits per semester, May be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

7190 Introduction to Public Safety and First Responders

IN PS FRST RESP

Introduction to Public Safety and First Responders introduces students to a variety of careers available and areas of interest including Fire Science, Criminal Justice, Homeland Security, Environmental Health and Safety, and Emergency Medical Services. The course is designed to help students create a career plan for the Public Safety sector which includes certification requirements and hiring practices.

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

Fire and Rescue

7195 Principles of Fire and Rescue

PRIN FIRE RES

Prinicples of Fire and Rescue introduces students to the various roles that firefighters and emergency services workers play to protect the public from the loss of life and property. They are frequently the first emergency personnel at the scene of a traffic accident or medical emergency and may be called upon to put out a fire, treat injuries or perform other vital functions. This course will introduce students to the history, terminology, and basic firefighting skills needed for a beginning firefighter. Additionally students will develop a career plan for a career in public safety; including areas of Fire Science, Homeland Security, and Emergency Medical Services.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7189 Fire Fighting Fundamentals

FIRE FGHT FUN

Fire Fighting Fundamentals is for those students who are seeking certification as a firefighter. This course will prepare students for the Hazardous Materials Awareness and Operations certifications and will introduce students to NFPA 1001 which serves as the standard of measurement for all fire fighters in North America. Students will learn the knowledge and hands-on practical skills for managing and controlling a hazardous materials incident required for the certifications. Furthermore, students will study how a fire behaves and will learn the basic firefighting skills needed to extinguish a fire while protecting themselves and other firefighters.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Fire and Rescue

- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7186 Advanced Fire Fighting

ADV FIRE FGHT

Advanced Fire Fighting expands upon the principles and techniques of firefighting learned in Fire Fighting Fundamentals. Students will study fire protection systems, firefighter safety and survival. Students will also learn what fire is, the chemical hazards of combustion, and related by-products of fire. Additionally, students will gain a better understanding of fire department organization, administration, operations, and basic strategies and tactics.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Fire and Rescue; Fire Fighting Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7229 Fire and Rescue Capstone

FIRE RES CAP

Fire and Rescue Capstone will prepare students to earn the EMT certification.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Fire and Rescue; Fire Fighting Fundamentals, Advanced Fire Fighting
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

<u>Criminal Justice</u>

7193 Principles of Criminal Justice

PRIN CR JUST

Principles of Criminal Justice covers the purposes, functions, and history of the three primary parts of the criminal justice system: law enforcement, courts, and corrections. This course further explores the interrelationships and responsibilities of these three primary elements of the criminal justice system.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum

- Counts as a directed elective or elective for all diplomas

7191 Law Enforcement Fundamentals

LAW ENF FUND

Law Enforcement Fundamentals Critically examines the history and nature of the major theoretical perspectives in criminology, and the theories found within those perspectives. Analyzes the research support for such theories and perspectives, and the connections between theory and criminal justice system practice within all the major components of the criminal justice system. Demonstrates the application of specific theories to explain violent and non-violent criminal behavior on both the micro and macro levels of analysis. Additionally, this course will introduce fundamental law enforcement operations and organization. This includes the evolution of law enforcement at federal, state, and local levels.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Criminal Justice
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7188 Corrections and Cultural Awareness

CRT CORR

Corrections and Cultural Awareness emphasizes the study of American criminal justice problems and systems in historical and cultural perspectives, as well as discussing social and public policy factors affecting crime. Multidisciplinary and multicultural perspectives are stressed. Additionally, this course takes a further examination of the American correctional system; the study of administration of local, state, and federal correctional agencies. The examination also includes the history and development of correctional policies and practices, criminal sentencing, jails, prisons, alternative sentencing, prisoner rights, rehabilitation, and community corrections including probation and parole. Current philosophies of corrections and the debates surrounding the roles and effectiveness of criminal sentences, institutional procedures, technological developments, and special populations are discussed.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Criminal Justice; Law Enforcement Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7231 Criminal Justice Capstone

CRIM JUST CAP

The Criminal Justice Capstone course allows students to complete additional instruction to earn a postsecondary certificate and should include a work-based learning component such as job

shadowing, internship, etc. once the core content is completed. Note that there may be age restrictions on work-based learning components.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Criminal Justice; Law Enforcement Fundamentals, Corrections and Cultural Awareness
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- Counts as a Directed Elective or Elective for all diplomas

Legal Studies

7194 Principles of Paralegal Studies

PRIN PARA ST

Principles of Paralegal Studies introduces the student to a broad understanding of the American legal system. Students will engage with and learn about the various court structures, the key players within the system, and how our rules and laws are made, enforced, interpreted and applied. The course will cover substantive legal topics and provide hands-on learning regarding legal research, legal writing, case briefing, interviewing skills, and profession ethics. The course will examine the rules of professional conduct that apply to all legal professionals including: the American Bar Association Model Rules of Professional Conduct, the Indiana Rules of Professional Conduct, the American Bar Association Guidelines for the Utilization of Legal Assistants, and various other sets of rules of conduct created by paralegal associations

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7192 Paralegal Fundamentals

PARA FUN

Paralegal Fundamentals introduces the student to legal research resources including: constitutions, statutory codes and annotations, administrative encyclopedias, treatises, legal periodicals, practice manuals, and form books. Students are introduced to various finding tools for accessing information in these resources. Students will learn proper legal citation form, citation services, and research strategy. Projects include a series of graded law library research assignments teaching the student how to use this variety of materials to research both primary and secondary legal authorities using methodologies for research in either print or online sources, and updating material to insure the most up-to-date research possible. is designed to improve the student's ability to write at a professional level, with appropriate attention to grammar, sentence structure, and style. Students will become familiar with basic legal terminology. This course will also develop the student's legal writing skills, including how to write sharp, clear prose and become more proficient and efficient at composing, organizing and summarizing a wide variety of legal written documents. The student will be exposed to various

legal writing techniques that are used in drafting a wide variety of legal documents. A strong emphasis is placed on proper legal writing methodology and formatting.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Paralegal Studies
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7187 Advanced Paralegal Studies

ADV PARA ST

Advanced Paralegal Studies introduces the student to the Indiana Trial Rules, court rules, local rules, and small claims; specifically knowing the Rules of Civil Procedure, and how they apply to each part of a case. Topics include: filing requirements, the rules regarding service of process, calculation of deadlines, motion practice, discovery, trials, and relief from judgements. This course will also develop the student's legal writing skills, including how to write sharp, clear prose and become more proficient and efficient at composing, organizing and summarizing a wide variety of legal written documents. The student will be exposed to various legal writing techniques that are used in drafting a wide variety of legal documents. A strong emphasis is placed on proper legal writing methodology and formatting.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Paralegal Studies; Paralegal Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7227 Paralegal Studies Capstone

LEGAL ST CAP

A core component of this course is a study of Indiana Trial Rules pertaining to an actual trial. Topics include the discovery process and discovery tools, litigation support – including organization and retrieval of trial documents – techniques in preparing witnesses for trial, and preparing jury instructions. The main project is compiling a trial notebook. Students will also receive instruction regarding a variety of different hardware and software programs used in general office settings, as well as those used specifically in the legal practice. Students will obtain an understanding of the sources of technology used in litigation in the courtroom. Additionally, students will be introduced to the concept of word processing systems and will be offered hands-on experience in the operation of Microsoft Word. Students are required to demonstrate course objectives through the appropriate Microsoft certification examination.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Paralegal Studies; Paralegal Fundamentals; Advanced Paralegal Studies
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max

- Counts as a Directed Elective or Elective for all diplomas

Science, Technology, Engineering and Mathematics (STEM)

4788 Engineering and Technology: Special Topics

ENG TECH ST

Engineering and Technology: Special Topics is an extended learning experience designed to address the advancement and specialization of careers within the career cluster through the provision of a specialized course for a specific workforce need in the school's region. The learning experience is at a qualified site, and is designed to give the student the opportunity to learn and practice technical skills; while working under the direction of the appropriately licensed professional. Throughout the course, students will focus on learning about employment opportunities and obtaining the knowledge, skills and attitudes essential for success in specific occupations. Course standards and curriculum must be tailored to the specific profession, preparing students to advance in this career field, and where applicable, provide students with opportunities for certification or dual credit. Participation in a related CTSO encourages the development of leadership, communication and career related skills, and opportunities for community service.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: CTE courses that would help prepare the student for success in this area.
- Credits: 1 semester course, up to 3 credits per semester, May be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

4794 Introduction to Design Processes

INT DES PRO

Introduction to Design Processes is a course that specializes in modern design and engineering processes with a focus on creative problem solving in developing, testing, communicating, and presenting post-evaluation of products. Students use the design process to analyze research, develop ideas, and produce products solutions. This process gives a framework through which they design, manufacture, test, and present their ideas. Students will demonstrate and utilize design principles and elements for visual presentation. Designing aspects will also cover aesthetics, ergonomics, the environment, safety, and production. The design process is a core-learning tool for many courses enabling the student to solve problems in a systematic, logical and creative manner. Students develop a good understanding of the way the process helps them think creatively and develope aesthetic ideas. The design process encourages the students to engage in higher level thinking to create solutions for many types of problems.

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

4800 Computers in Design & Production

COMP DES

Computers in Design and Production is a course that specializes in using modern technological processes, computers, design, and production systems in the production of products and structures through the use of automated production systems. Emphasis is placed on using modern technologies and on developing career related skills for electronics, manufacturing, precision machining, welding, and architecture career pathways. Students apply ingenuity using tools, materials, processes, and resources to create solutions as it applies in the electronics, manufacturing, precision machining, welding, and architecture. The content and activities should be developed locally in accordance with available advanced technologies in the school. Course content should address major technological content related to topics such as: Architectural drawing and print design, design documentation using CAD systems; assignments involving the interface of CAD, CNC, CAM, and CIM technologies; computer simulation of products and systems; publishing of various media; animation and related multimedia applications; 3-D modeling of products or structures; digital creation and editing of graphics and audio files; control technologies; and automation in the modern workplace.

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5614 Introduction to the Energy Industry

INTRO ENG IND

Introduction to the Energy Industry provides students with an understanding of the occupations in the energy industry and the education and training to enter and advance in careers in the field. Students will explore all aspects of the energy industry including nuclear, natural gas and renewable energy. Schools certified through the Center for Energy Workforce Development (CEWD) can offer their students the opportunity to earn the Energy Industry Fundamentals Certificate.

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

6126 Advanced Career & Technical Education, College Credit: STEM

ADV CTE CC

Advanced Career and Technical Education, College Credit is a course title covering any CTE advanced course offered for credit by an accredited post-secondary institution through an adjunct agreement with a secondary school. The intent of this course is to allow students to earn college credit for courses with content that goes beyond that currently approved for high

school credit. This course may be used for any dual enrollment course, including a joint program of study involving a postsecondary partnership.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: CTE courses that would help prepare the student for success in this area.
- Credits: 1 semester course, up to 3 credits per semester, May be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- A student should earn at least 3 postsecondary credits for each high school credit. Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

7199 Engineering Essentials

ENG ESS

Engineering Essentials is designed as a first-exposure experience to inspire students of all backgrounds to explore the breadth of engineering-related career opportunities. Throughout the course, students explore global engineering challenges and sustainability goals, the impact of engineering, and the variety of career paths available to them. Students will understand the various disciplines within the engineering field, approach and solve problems in different ways, use a variety of industry tools, and build an engineering mindset. NOTE: This course aligns with the PLTW Engineering Essentials curriculum. Use of the PLTW curriculum may require additional training and membership in the PLTW network.

- Recommended Grade(s): 9
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- NOTE: Schools that have agreed to be part of the Project Lead the Way network must follow all training and data collection requirements.

<u>Engineering</u>

4802 Introduction to Engineering Design

INT ENG DES

Introduction to Engineering Design is a fundamental pre-engineering course where students become familiar with the engineering design process. Students work both individually and in teams to design solutions to a variety of problems using industry standard sketches and current 3D design and modeling software to represent and communicate solutions. Students apply their knowledge through hands-on projects and document their work with the use of an engineering notebook. Students begin with completing structured activities and move to solving open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills. Ethical issues related to professional practice and product development are also presented. NOTE: This course aligns with the PLTW Introduction to

Engineering Design curriculum. Use of the PLTW curriculum may require additional training and membership in the PLTW network.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- NOTE: Schools that have agreed to be part of the Project Lead the Way network must follow all training and data collection requirements.

5644 Principles of Engineering

PRNC ENG

Principles of Engineering is a course that focuses on the process of applying engineering, technological, scientific and mathematical principles in the design, production, and operation of products, structures, and systems. This is a hands-on course designed to provide students interested in engineering careers to explore experiences related to specialized fields such as civil, mechanical, and materials engineering. Students will engage in research, development, planning, design, production, and project management to simulate a career in engineering. The topics of ethics and the impacts of engineering decisions are also addressed. Classroom activities are organized to allow students to work in teams and use modern technological processes, computers, CAD software, and production systems in developing and presenting solutions to engineering problems. Schools may use the PLTW curriculum to meet the standards for this course. NOTE: This course aligns with the PLTW Principles of Engineering curriculum. Use of the PLTW curriculum may require additional training and membership in the PLTW network.

- Recommended Grade(s): 10, 11
- Required Prerequisites: Introduction to Engineering Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Fulfills a science course requirement for all diplomas

5518 Aerospace Engineering

AERO ENG

Aerospace Engineering should provide students with the fundamental knowledge and experience to apply mathematical, scientific, and engineering principles to the design, development, and evolution of aircraft, space vehicles and their operating systems. Emphasis should include investigation and research on flight characteristics, analysis of aerodynamic design, and impact of this technology on the environment. Classroom instruction should provide creative thinking and problem-solving activities using software that allows students to design, test, and evaluate a variety of air and space vehicles, their systems, and launching, guidance and control procedures. NOTE: This course aligns with the PLTW Aerospace Engineering

curriculum. Use of the PLTW curriculum may require additional training and membership in the PLTW network.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Introduction to Engineering Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course
- Counts as a science credit

5650 Civil Engineering and Architecture

CIVIL ENG

Civil Engineering and Architecture introduces students to the fundamental design and development aspects of civil engineering and architectural planning activities. Application and design principles will be used in conjunction with mathematical and scientific knowledge. Computer software programs should allow students opportunities to design, simulate, and evaluate the construction of buildings and communities. During the planning and design phases, instructional emphasis should be placed on related transportation, water resource, and environmental issues. Activities should include the preparation of cost estimates as well as a review of regulatory procedures that would affect the project design. NOTE: This course aligns with the PLTW Civil Engineering and Architecture curriculum. Use of the PLTW Curriculum may require additional training and membership in the PLTW network.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Introduction to Engineering Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course

5534 Computer Integrated Manufacturing

COMP INT MFG

Computer Integrated Manufacturing is a course that applies principles of rapid prototyping, robotics, and automation. This course builds upon the computer solid modeling skills developed in Introduction of Engineering Design. Students will use computer controlled rapid prototyping and CNC equipment to solve problems by constructing actual models of their three-dimensional designs. Students will also be introduced to the fundamentals of robotics and how this equipment is used in an automated manufacturing environment. Students will evaluate their design solutions using various techniques of analysis and make appropriate modifications before producing their prototypes. NOTE: This course aligns with the PLTW Computer Integrated Manufacturing curriculum. Use of the PLTW curriculum may require additional training and membership in the PLTW network.

- Recommended Grade(s): 11, 12

- Required Prerequisites: Introduction to Engineering Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course

5538 Digital Electronics

DIG ELEC

Digital Electronics is a course of study in applied digital logic that encompasses the design and application of electronic circuits and devices found in video games, watches, calculators, digital cameras, and thousands of other devices. Instruction includes the application of engineering and scientific principles as well as the use of Boolean algebra to solve design problems. Using computer software that reflects current industry standards, activities should provide opportunities for students to design, construct, test, and analyze simple and complex digital circuitry software will be used to develop and evaluate the product design. This course engages students in critical thinking and problem-solving skills, time management and teamwork skills.

NOTE: This course aligns with the PLTW Digital Electronics curriculum. Use of the PLTW curriculum may require additional training and membership in the PLTW network.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Introduction to Engineering Design (-or- Principles of Engineering Technology)
- Recommended Prerequisites: Electronic Fundamentals
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course

4818 Environmental Sustainability

ENV SUS

Environmental Sustainability is a specialization course that builds upon prior knowledge learned in previous engineering and science courses. Students investigate and design solutions in response to current challenges such as providing the world with clean and abundant drinking water, an adequate food supply, and renewable energy. Students are introduced to environmental issues and use the engineering design process to design, build, and test potential solutions. This course engages critical thinking and problem-solving skills as students apply and extend their knowledge through designing experiments, managing projects, conducting research, and creating presentations to communicate solutions.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Introduction to Engineering Design
- Recommended Prerequisites: Biology
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

- Fulfills a science course requirement for all diplomas
- If PLTW curriculum is used, PLTW training is required of the teacher.

5698 Engineering Design and Development

ENG DES DEV

Engineering Design and Development is an engineering research course in which students work in teams to research, design, test, and construct a solution to an open-ended engineering problem. The product development life cycle and a design process are used to guide the team to reach a solution to the problem. The team and/or individual(s)communicates their solution to a panel of stakeholders at the conclusion of the course. As the capstone course in the Engineering Pathway, EDD engages students in critical thinking, problem-solving, time management, and teamwork skills. NOTE: This course aligns with the PLTW Engineering Design and Development curriculum. Use of the PLTW curriculum may require additional training and membership in the PLTW network.

- Recommended Grade(s): 12
- Required Prerequisites: Introduction to Engineering Design; Principles of Engineering; and one pre-engineering specialty course
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a directed elective or elective for all diplomas

Design Technology

7196 Mechanical and Architectural Design

ARCT DES

Mechanical and Architectural Design provides students with a basic understanding of creating working drawings related to manufacturing detailing and assembly as well as a survey of Architectural design focused on the creative design of buildings. Topics include fastening devices, thread symbols and nomenclature, surface texture symbols, classes of fits, and the use of parts lists, title blocks and revision blocks. From an Architecture perspective, this course covers problems of site analysis, facilities programming, space planning, conceptual design, proper use of materials, and selection of structure and construction techniques.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Introduction to Engineering Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7202 Manufacturing Principles and Design

PRIN DES TECH

Manufacturing Principles and Design will challenge students will use 2D and 3D CAD skills to explore topics related to manufacturing principles and design. Students will gain an

understanding of solid modeling and parametric solid modeling and use 3D printers to create industry part prints. Additionally, students will compare manufacturing practices like Lean Manufacturing, design and program CNC processes, and use metrology tools and practices to evaluate an object.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: Introduction to Engineering Design; Mechanical and Architectural Design Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course

7223 Mechanical Design Capstone

MECH DES CAP

Mechanical Design Capstone covers a broad range of design techniques that are critical for the Manufacturing industry. Students will have the chance to study solid modeling techniques and design, fundamental principles of geometric dimensioning and tolerancing, Solidworks design software, and an introduction to additive manufacturing.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Introduction to Engineering Design; Mechanical and Architectural Design Fundamentals; Manufacturing Principles and Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Counts as a quantitative reasoning course

7197 BIM Architecture

BIM ARCH

BIM Architecture will introduce students to Building Information Modeling (BIM) which is an intelligent 3D model-based process that gives architecture, engineering, and construction professionals the insight and tools to better plan, design, and construct buildings. Students will deepen their skills in 3D CAD and learn to use BIM software to capture and analyze concepts and to prepare client presentations for Commercial Construction.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Introduction to Engineering Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course

7225 Architectural Design Capstone

ARCH DES CAP

Architectural Design Capstone covers residential design and drafting. Topics include interior space planning, structural design and development of working drawings. The course provides opportunity for students to design a residence using accepted building standards and introduces various construction materials. Students will also learn advanced CAD design topics in architectural design. Completion of the entire course may also provide students the opportunity to understand basic surveying equipment and surveying techniques.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Introduction to Engineering Design; Mechanical and Architectural Design Fundamentals; BIM Architecture
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

Biotechnology – Pharmaceutical/Medical Device Manufacturing

7340 Principles of Biotechnology

PRIN BIOTECH

Principles of Biotechnology presents an in-depth overview of biotechnology emphasizing basic molecular techniques of manipulating DNA; processes involved in protein purification and analysis; microbial, plant, aquatic, medical and animal biotechnology; regulations and ethics of the biotechnology industry.

- Recommended Grade(s): 9,10,11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7341 Biotech Manufacturing

BIOTECH MANF

Biotech Manufacturing introduces students to the basics of design and manufacturing within the biotechnology industry, gaining an understanding of the work environment. Students will learn a brief history of the Food and Drug Administration, then will learn how the practices set forth by the FDA control the work environment and the behavior of workers in the field. This course prepares students for the most basic entry level position in this regulated industry.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Biotechnology
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum

- Counts as a directed elective or elective for all diplomas

7342 Biotech Regulatory Affairs

BIOTECH REG AFF

Biotech Regulatory Affairs provides an entry level introduction to the laws and regulations that govern the development, marketing and commercial distribution of drugs, biological and medical device products and how they relate to the pharmaceutical, biotechnology and medical device industry. This course is intended to provide individuals with a greater understanding of regulatory affairs, specifically providing an understanding of how their actions are controlled by regulations and how to interact with FDA or global regulatory agencies.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Biotechnology
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7343 Advanced Biotech Manufacturing

ADV BIOTECH MANF

Advanced Biotech Manufacturing will introduce students to the key industrial technology knowledge and skills required in the manufacturing of pharmaceuticals and/or medical devices. Students will learn the basics of fluid power and metrology. Students will apply these skills through lecture, lab, and simulations.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Biotechnology; Biotech Manufacturing
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7344 Biotechnology Capstone

BIOTECH CAP

The Biotechnology Capstone course focuses on safety, quality, and manufacturing practices for Biotechnical manufacturing careers. The course can be customized to provide a focus on pharmaceutical manufacturing. Capstone content can be combined outside experiences and credits can be applied to the Medical Device Quality CT, Biopharmaceutical Manufacturing CT and the Biotechnology AAS (the degree requires Biology, but not the chemistry) at Ivy Tech. Students should have completed a college level Biology or Chemistry course prior to enrolling in the capstone course.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Biotechnology; Biotech Manufacturing; Advanced Biotech Manufacturing or Biotech Regulatory Affairs
- Recommended Prerequisites: none

- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a directed elective or elective for all diplomas
- Students enrolled in this pathway should complete a college level Biology or Chemistry course prior to enrolling in this course

Electronics and Computer Technology

7361 Electronic Fundamentals

ELEC FUND

Electronic Fundamentals will concentrate on the physical world of electricity and electronics. Practical techniques for proper and safe use of basic hand and machine tools are introduced. Techniques for connecting various types of circuits are also covered. The process of fabricating printed circuit boards is presented.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Introduction to Engineering Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course

7362 Electronics and Computer Technology Capstone

ECT CAP

Electronics and Computer Technology Capstone provides the opportunity for students to continue with foundational electronic concepts including circuit analysis and digital electronics modules. This course incorporates classroom, laboratory, and work-based experiences in the fundamental electronics concepts of circuit analysis and digital electronics as well as optional modules focused on industrial technology, emerging electronic technologies, residential and commercial electronic communication, and automation. Industry certifications and additional post-secondary education are critical components of this pathway.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Introduction to Engineering Design; Electronic Fundamentals; Digital Electronics
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course

Energy Technology

7203 Principles of Energy Technology

PRIN ENER TECH

Principles of Energy Technology provides a broad understanding of the electric and natural gas utility industry and the energy generation, transmission, and distribution infrastructure, commonly called the “largest machine in the world,” which forms the backbone for the industry. The course includes business models, regulations, types of energy and their conversion to useable energy such as electric power, how generated power is transmitted and distributed to the point of use, emerging technologies and the connection to careers in the energy industry. Safety instruction covers topics including; Material Safety Data Sheets (MSDS), confined space, lock out/tag out, zero energy state, hazardous materials, storage of flammable materials, storage of fuel gas and high pressure gas cylinders, portable powered tool safety, hand tool safety, record keeping, training, employer enforcement of safety regulations, and right to know.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7200 Fundamentals of Electricity and Motors

FUN ELE MOTR

Fundamentals of Electricity and Motors will introduce students to the basic electrical laws and principles pertaining to DC and AC circuits and provide a general understanding of the common types of electric motors. Electricity topics include current, voltage, resistance, power, inductance, capacitance, and transformers. Stresses the use of standard electrical tests, electrical equipment, and troubleshooting procedures. Topics related to motors will cover motor theory, magnetism and how it affects motor rotation, motor starting components and protective devices for motor circuits. Heat dissipation from a motor, motor slippage, how they are wired to obtain different speeds, and how capacitors affect a motor circuit will be included. Safety procedures and practices are emphasized.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Energy Technology
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course

7198 Electrical Power Distribution

ELC PWR DIS

Electrical Power Distribution is an introduction to the electrical grid and power distribution. It will cover the history of the current electrical grid and the future of the smart grid, basic electrical concepts, power generation, transmission, distribution, system operations, electrical market structures, regulation, restructuring, market dynamics, and most aspects of the electricity business. This course answers the questions of who creates the power we use, how it's

distributed throughout the electrical grid, who determines the cost of electricity, and who controls the entire electrical infrastructure. Students will also study the principles and components required for the transmission and distribution of electric power.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Energy Technology; Fundamentals of Electricity and Motors
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7268 Electrical Line Capstone

ELEC LN CAP

The Electrical Line Capstone course builds upon the knowledge and skills developed in the Principles of Energy Technology, Basic Electrical and Motor Controls, and Electrical Power Distribution courses by developing advanced skills that students can apply to the field. Students enrolled in this course will participate in instruction and lab activities that covers aspects proper care of climbing tools, and the mastering of climbing wood pole structures, electrical principles required for installation, maintenance and troubleshooting of power lines, rigging gear inspection, safe rigging procedures and load control, using almost any vertical or horizontal rigging system. Upon successful completion of this course, the student will be qualified in two methods of pole top rescue.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Energy Technology; Fundamentals of Electricity and Motors; Electrical Power and Distribution
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7269 Industrial Wind Capstone

IND WIND CAP

The Industrial Wind Capstone course builds upon the knowledge and skills developed in the Principles of Energy Technology, Basic Electrical and Motor Controls, and Electrical Power Distribution courses by developing advanced skills that students can apply to the field. Students enrolled in this course will participate in instruction and lab activities that covers aspects of site selection, topographic map reading, meteorology, wind turbine construction, wind power system components, and wind turbine safety. This course will cover general wind turbine systems and operations including troubleshooting for the mechanical, hydraulic, and electrical systems as well as the interaction of wind turbine systems with technologies. Upon completion of this course students will be able to earn the Small Wind Installer - Level 1 (SWI1) certification.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Energy Technology; Fundamentals of Electricity and Motors; Electrical Power and Distribution

- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7266 Natural Gas Capstone

NATL GAS CAP

The Natural Gas Capstone course builds upon the knowledge and skills developed in the Principles of Energy Technology, Basic Electrical and Motor Controls, and Electrical Power Distribution courses by developing advanced skills that students can apply to the field. Students enrolled in this course will participate in instruction and lab activities involving the health, safety and environmental hazards and federal regulations surrounding natural gas. Students will participate in activities that cover the types of natural gas pipeline materials, joining techniques, and coating maintenance. Students will also be engaged in activities that cover methods used to locate and install natural gas lines, basic design theory, backfilling, purging, valve inspection and maintenance, pressure testing, customer regulations and relief design, explanation of hoop stress, shutting down the flow of gas, basic tapping and stopping techniques, construction equipment and current methods and common materials. As a capstone course, students should have the opportunity to apply their knowledge and use skills through an intensive work-based learning experience.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Energy Technology; Fundamentals of Electricity and Motors; Electrical Power and Distribution
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7365 Renewable Energy Alternatives

RE ENGY ALT

The Renewable Energy Alternative Capstone course builds upon the knowledge and skills developed in the Principles of Energy Technology, Basic Electrical and Motor Controls, and Electrical Power Distribution courses by developing advanced skills that students can apply to the field. Students enrolled in this course will participate in instruction and lab activities that covers aspects of installation and maintenance of residential and commercial scale solar power and heat, wind power, and geothermal heat systems. Students will participate in activities that cover site selection, topographic map reading, meteorology, wind turbine construction, wind power system components, and wind turbine safety, leading technologies in the solar industry, photovoltaic system safety and PPE requirements, electrical circuits and multimeter practices, PV module function and build, charge controller and inverter operation, battery systems, and PV system wiring and code requirements. Upon completion of this course students will be able to earn the Small Wind Installer - Level 1 (SWI1) certification and the Photovoltaic Installer – Level I (PVI1) certification.

- Recommended Grade(s): 11, 12

- Required Prerequisites: Principles of Energy Technology; Fundamentals of Electricity and Motors; Electrical Power and Distribution
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

Water Systems

7381 Principles of Public Water Systems

PRIN WATER SYS

Principles of Public Water Systems provides students with the foundational knowledge to operate a public water distribution system. Including an introduction to water systems, rules and regulations, and safety.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Biology, Chemistry
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7382 Water Systems Fundamentals

WATER SYS FUND

Water Systems Fundamentals will include an overview of water distribution systems, specialized treatment processes, disinfection, and water system maintenance.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Public Water Systems
- Recommended Prerequisites: Biology, Chemistry
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7383 Advanced Water Systems

ADV WATER SYS

Advanced Water Systems will focus on practical application of concepts learned in previous courses and preparation for the certification exam. Additionally, students will study the National Incident Management System (NIMS) which helps to ensure that all organizations work together to prevent, protect against, mitigate, respond to, and recover from the effects of incidents impacting the water supply.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Public Water Systems; Water Systems Fundamentals
- Recommended Prerequisites: Biology, Chemistry

- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

7384 Water Systems Capstone

WATER SYS CAP

The Water Systems Capstone course will focus on higher level concepts that operators may be exposed to as they advance in their chosen careers. Courses topics may include; asset management, risk assessment and emergency response training, instrumentation (SCADA &GIS), water audits, construction inspection, water plant administration.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Public Water Systems; Water Systems Fundamentals; Advanced Water Systems
- Recommended Prerequisites: Biology, Chemistry
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

Transportation

4798 Introduction to Transportation

INT TRANS

Introduction to Transportation is an introductory course designed to help students become familiar with fundamental principles in modes of land, sea, air, and space transportation, including basic mechanical skills and processes involved in transportation of people, cargo, and goods. Students will gain and apply knowledge and skills in the safe application, design, production, and assessment of products, services, and systems as it relates to the transportation industries. Content of this course includes the study of how transportation impacts individuals, society, and the environment. This course allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant transportation related activities, problems, and settings.

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

6128 Advanced Career & Technical Education, College Credit: Transportation

ADV CTE CC TRANS

Advanced Career and Technical Education, College Credit is a course title covering any CTE advanced course offered for credit by an accredited post-secondary institution through an adjunct agreement with a secondary school. The intent of this course is to allow students to earn college credit for courses with content that goes beyond that currently approved for high school credit. This course may be used for any dual enrollment course, including a joint program of study involving a postsecondary partnership.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: CTE courses that would help prepare the student for success in this area.
- Credits: 1 semester course, up to 3 credits per semester, May be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- A student should earn at least 3 postsecondary credits for each high school credit. Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

6156 Transportation: Special Topics

TRANS ST

Transportation: Special Topics is an extended learning experience designed to address the advancement and specialization of careers within the career cluster through the provision of a specialized course for a specific workforce need in the school's region. The learning experience is at a qualified site, and is designed to give the student the opportunity to learn and practice technical skills; while working under the direction of the appropriately licensed professional. Throughout the course, students will focus on learning about employment opportunities and obtaining the knowledge, skills and attitudes essential for success in specific occupations. Course standards and curriculum must be tailored to the specific profession, preparing students to advance in this career field, and where applicable, provide students with opportunities for certification or dual credit. Participation in a related CTSO encourages the development of leadership, communication and career related skills, and opportunities for community service.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, up to 3 credits per semester; May be offered for successive semesters up to 12 credits
- Counts as a directed elective or elective for all diplomas
- Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.

<u>Automotive Service Technology</u>

7213 Principles of Automotive Services

PRIN AUTO SER

This course gives students an overview of the operating and general maintenance systems of the modern automobile. Students will be introduced to the safety and operation of equipment and tools used in the automotive industry. Students will study the maintenance and light repair of automotive systems. Also, this course gives students an overview of the electrical operating systems of the modern automobile. Students will be introduced to the safety and operation of equipment and tools used in the electrical diagnosis and repair in the automotive electrical industry. Students will study the fundamentals of electricity and automotive electronics.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7205 Brake Systems

BRK SYS

This course teaches theory, service and repair of automotive braking systems. This course provides an overview of various mechanical brake systems used on today's automobiles. This course will emphasize professional diagnosis and repair methods for brake systems.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Automotive Services
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools partnering with Vincennes University must offer the program of study as part of a 2-3 period block.

7212 Steering and Suspensions

STEER SUSP

This course will study driveline theory and in-car service procedures. Theory and overhaul procedures related to the driveshaft and axle assemblies for front and rear wheel drive vehicles are included as well. Additionally, this course teaches theory, service and repair of automotive steering and suspension systems. It provides an overview of various mechanical, power, and electrical steering and suspension systems used on today's automobiles and will emphasize professional diagnosis and repair methods for steering and suspension systems.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Automotive Services; Brake Systems
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools partnering with Vincennes University must offer the program of study as part of a 2-3 period block.

7375 Automotive Service Capstone

AUTO SRV CAP

This course further explores important skills and competencies within the Automotive Service Technology Pathway. Students will be exposed to an in-depth study of vehicle electrical systems. Students will study the fundamentals of electricity and automotive electronics in various automotive systems. Students will understand other topics such as Engine Repair, Climate Control, and Driveline Service. Additionally, Co-Op and Internship opportunities will be available for students.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Automotive Services; Brake Systems; Steering and Suspensions
- Recommended Prerequisites: none

- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- Counts as a Directed Elective or Elective for all diplomas

Automotive Collision Repair

7215 Principles of Collision Repair

PRIN COL REP

Principles of Collision Repair provides students an overview of the operating, electrical, and general maintenance systems of the modern automobile. Students will be introduced to the safety and operation of equipment and tools used in the automotive collision industry. Students will study the basics of collision repair, along with learning to perform basic service and maintenance, including the car's starting and charging system.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7204 Automotive Body Repair

AUTO BDY REP

Automotive Body Repair provides students with an understanding of the materials, measuring, welding, and information resources applicable to collision repair. Students will study steel and aluminum dent repair, including the welding practices commonly performed within an automotive repair environment. Students will gain basic skills and knowledge in oxy-fuel welding, cutting, brazing and plasma cutting, gas metal arc welding, squeeze type resistance welding, exterior panel welding and I-CAR welding test preparation. Students will also learn the installation of moldings, ornaments, and fasteners with emphasis on sheet metal analysis and safety.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Collision Repair
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7206 Plastic Body Repair and Paint Fundamentals

PAINT FUND

Plastic Body Repair and Paint Fundamentals introduces the types of fiberglass and plastic materials used in auto body repair and considerations for automotive painting. Students will explore methods for repairing fiberglass and plastic damage, like welding, reinforcing, repairing holes, and retexturing plastic. Students will be asked to demonstrate the proper use of primers and sealers, spraying techniques, and an understanding of various paint finishes.

- Recommended Grade(s): 10, 11, 12

- Required Prerequisites: Principles of Collision Repair; Automotive Body Repair
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7380 Collision Repair Capstone

COLL RPR CAP

This course further explores important skills and competencies within the Automotive Body Technology Pathway. Topics such as Automotive Painting Technology, Collision Damage Appraising, and Fiberglass Plastic Repair. Additionally, Co-Op and Internship opportunities will be available for students.

- Recommended Grade(s): 11,12
- Required Prerequisites: Principles of Collision Repair; Plastic Body Repair and Paint Fundamentals; Automotive Body Repair
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- Counts as a Directed Elective or Elective for all diplomas

Diesel Technology

7216 Principles of Diesel Technology

PRIN DSL SERV

This course introduces the maintenance requirements and procedures of modern diesel engines and medium and heavy-duty trucks. Proper procedures and requirements for the Federal Highway Safety Inspection (DOT) will be discussed and practiced. In addition, this course gives students an overview of the electrical operating systems of the modern automobile. Students will be introduced to the safety and operation of equipment and tools used in the electrical diagnosis and repair in the automotive electrical industry. Students will study the fundamentals of electricity and automotive electronics.

- Recommended Grade(s): 9,10,11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7210 Diesel Steering and Brakes

DSL STR BRKS

This course studies steering, and suspension systems commonly used on modern tractors and trailers. Study will include steering and suspension components, power steering units, alignment theory and procedures, tire repair and service, and wheel balancing. Diagnosis, repair, and servicing of components including modern air suspension systems will be emphasized. Additionally, this course will cover theory, service, and repair of medium and heavy truck brake

systems and their components. Emphasis is given to air brakes and their theory of operation, repair, and service of system components. Spring brakes and anti-lock systems will be studied on tractors and trailers.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Diesel Technology
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7211 Diesel Transmissions

DSL TRN ENGI REP

This course explores theory, diagnosis, and overhaul procedures related to manual transmissions and differentials. Course includes service of twin countershaft, under-drive, overdrive, power-dividers, and air shift systems. Additionally, this course Studies precision tools, equipment, and procedures needed to repair modern diesel engines. Repair, proper assembly, and component identification are studied along with service of removable cylinder liners.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Diesel Technology
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7221 Diesel Services Capstone

DESL SRV CAP

This course further explores important skills and competencies within the Diesel Technology Pathway. Topics such as Truck Climate Control Systems, Diesel Engine Performance, HT Electrical Systems, Hd Truck Auto. Transmission and Heavy Truck Electronics. Additionally, Co-Op and Internship opportunities will be available for students.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Diesel Technology; Diesel Steering and Brakes; Diesel Transmission
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Counts as a quantitative reasoning course

<u>Commercial Driver</u>

7386 Principles of Transportation and Logistics

PRIN TRANS LOG

Principles of Transportation and Logistics examines the structure and importance of the commercial transportation industry in the logistics sector of business. Topics covered include an in-depth examination of the various modes of transportation including discussions of regulations, economics, characteristics, and development in major transportation modes. Also discussed are costing and pricing issues in transportation and relationship management between buyers and sellers of transportation. Additionally, this course introduces students to an overview of the CDL licensure and prepares them to get their CDL permit. Students are required to get a Department of Transportation Physical and Drug Screen.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Recommended as a one year concentrator sequence offered through a half day program.

7387 Commercial Drivers Opertions Fundamentals

CDL OPER FUND

Commercial Drivers Operation Fundamentals introduces students to an orientation of the CDL industry, the CDL license, driver qualifications, and the commercial vehicle. The vehicle control systems are reviewed and discussed. The vehicle systems including engine, suspension, electrical and many others are reviewed in detail. The vehicle inspection is practiced and applied. Range and on the road training in a tractor trailer are major components of this course. Students will discuss driving in a variety of conditions including at night, emergency situations, skidding, and extreme weather. Students will practice many different driving maneuvers including backing, turning, shifting, coupling, space and speed management in order to prepare for the CDL A exam. This course must be taken concurrently with Advanced Commercial Drivers Operations.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Transportation and Logistics; Co-enrolled in Advanced Commercial Drivers Operations
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Recommended as a one year concentrator sequence. Must be enrolled in both Commercial Drivers Operations Fundamentals and Advanced Commercial Drivers Operations

7388 Advanced Commercial Drivers Operations

ADV CDL FUND

Students will continue to practice until mastery of the pre-trip inspection which is a critical component of passing the CDL A exam. Administrative and professional components of being a

professional driver are discussed and explained including, hours of service, accident reporting, personal health, communication and Compliance, Safety, and Accountability (CAS). This course must be taken concurrently with Commercial Drivers Operations Fundamentals. Upon successful completion of Commercial Drivers Operation Fundamentals and Advanced Commercial Drivers Operations the student will be eligible to take the CDL A examination.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Transportation and Logistics; Co-enrolled in Commercial Drivers Operations Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Recommended as a one year concentrator sequence. Must be enrolled in both Commercial Drivers Operations Fundamentals and Advanced Commercial Drivers Operations

5622 Tractor/Trailer Operation

TRACT OPER

Tractor/Trailer Operation, is a comprehensive training program that prepares students to enter the trucking industry as an entry-level tractor-trailer operator. Instruction will include both classroom activities and behind-the-wheel driving experiences. Additional emphasis will include preventive maintenance and basic control skills training. Students are required to submit to and pass a Department of Transportation, Distribution and Logistics physical exam and drug screen. In addition, students must reach their 18th birthday prior to graduation from high school in order to enroll in and complete this course. Upon successful completion, students will be qualified to operate Class A Commercial Vehicles on Indiana highways.

- Recommended Grade(s): 12
- Required Prerequisites: Diesel Service Program of Study; or Supply Chain Management Program of Study
- Recommended Prerequisites: none
- Credits: 2 semester course, 1-3 credits per semester, 6 credits maximum
- Counts as a directed elective or elective for all diplomas
- May not be used as a capstone for the CDL pathway

<u>Aviation Management</u>

7214 Principles of Aviation Management

PRIN AVI MAN

This course provides the student the opportunity to develop an understanding of various aspects of the aviation industry to include general regulations and laws associated with the field. Included is an overview of the aviation field and all employment opportunities. Areas of study include aerodynamics, aircraft systems, performance, weight and balance, physiology, regulations, cross country planning, weather, and decision-making skills. Students will also learn of the departments associated with an airport and their impact on the industry as a whole.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7217 Private Pilot Theory

PVT PLT THRY

The student will receive ground school knowledge required for certification as a private pilot with an airplane single engine land rating. Areas of study include aerodynamics, aircraft systems, performance, weight and balance, physiology, regulations, cross country planning, weather, and decision-making skills.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Aviation Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7207 Aviation Safety and Operations

AVI SAF OPS

This course is an overview of general aviation operations, including the operation and management of the Fixed Base Operation (FBO). It introduces the challenges and complexity of aviation security faced by aviation professionals across the industry and traces the evolution of current security approaches and explores technologies and processes targeting threat mitigation and improved operational efficiency. Emphasis will be placed on financial and operational considerations as well as on regulatory requirements and constraints.

- Recommended Grade(s): 10, 11. 12
- Required Prerequisites: Principles of Aviation Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7385 Aviation Management Capstone

AVI MGMT CAP

This course is an introduction to the aviation weather service program. Course includes the National Weather Service, Flight Service Stations, International Civil Aviation Organization, and analyzing and interpreting of weather reports and maps. Additionally, this course will prepare students for certification as an Instrument Pilot with an Airplane Single Engine Land rating. Areas of study include basic instrument flying, flying instruments, IFR charts and approach plates, IFR regulations and procedures, ATC clearances, and IFR flight planning

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Aviation Management; Private Pilot Theory; Aviation Safety and Operations
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- Counts as a Directed Elective or Elective for all diplomas
- Counts as a quantitative reasoning course

Part II: Advanced Manufacturing

5606 Advanced Manufacturing II

ADV MFTG II

Advanced Manufacturing II builds on classroom and lab experiences students experienced in Advanced Manufacturing I. Domains include safety and impact, drafting principles, manufacturing programming, CAD/CAM and CNC technologies, automation and robotics, and careers in advanced manufacturing. Hands-on projects and team activities will allow students to apply learning on the latest industry technologies. Students continue this course with the goal of being a skilled machine operator, repair technician, or management at any company that produces goods and services using advanced manufacturing techniques. Work based learning experiences and industry partnerships are highly encouraged for an authentic industry experience.

- Recommended Grade(s): 12
- Required Prerequisites: Advanced Manufacturing I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course

5608 Advanced Manufacturing I

ADV MFTG I

Advanced Manufacturing I is a course that includes classroom and laboratory experiences in two broad areas: Industrial Technology/Software Controls and Manufacturing Trends. Domains include safety and impact, electricity, manufacturing essentials, fluid power principles, mechanical principles, lean manufacturing, and careers in advanced manufacturing. Hands-on projects and team activities will allow students to apply learning on the latest industry technologies. Students take this course with the goal of being a skilled machine operator, repair technician, or working in management at any company that produces goods and services using advanced manufacturing techniques. Work based learning experiences and industry partnerships are highly encouraged for an authentic industry experience.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Advanced Manufacturing
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5610 Industrial Automation and Robotics I

AUTO ROB I

Industrial Automation and Robotics I, will introduce students to design and programming concepts in basic robots that use sensors and actuators to solve specific problems and complete specific tasks. This will include introductory programming autonomous mode. Students will also learn to program a humanoid robot, tethered and in autonomous mode, able to react to specific circumstances and perform human-like tasks when programming is complete. This course will provide fundamentals in industrial robotics basic programming and operations. Students will program an industrial robot through exploration of a teach pendant and use proper programming commands with hands-on utilization of an industrial robot. This course will provide fundamental knowledge and skills in basic lasers, pneumatics, hydraulics, mechanics, basic electronics, and programmable logic controllers along with an understanding of career pathways in this sector.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5612 Industrial Automation and Robotics II

AUTO ROB II

Industrial Automation and Robotics II, focuses on industrial robots, programming PLC's, automating cells, advanced programming, and designing/building task-oriented robots. Students will engage in active learning, critical thinking, and problem solving through advanced robotic procedures and processes. Students will learn industrial robotic programming languages, as well as strategies for improving efficiency through automation. Students will study basic computer numerical controlled (CNC) machining and will combine automation and CNC machining to perform common industrial tasks. They will also apply knowledge to real world situations to create working solutions.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Industrial Automation and Robotics I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course

5686 Industrial Technical Maintenance I

INDUST MAINT I

Industrial Technical Maintenance I includes classroom and practical experiences that prepare students to apply technical knowledge and skills to repair and maintain industrial machinery and equipment. Instructional activities develop diagnostic and problem-solving skills related to

electric circuits, wiring, motors, robotics, hydraulics, and pneumatics. Additional areas of instruction should include plumbing, rigging, basic machining, welding, and cutting.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Advanced Manufacturing
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5688 Industrial Technical Maintenance II

INDUST MAINT II

Industrial Technical Maintenance II builds on the practical experiences learned in Industrial Maintenance I and prepares students to apply technical knowledge and skills to repair and maintain more advanced industrial equipment, systems, and processes. Instructional activities develop diagnostic and problem-solving skills related to electric circuits, wiring, motors, robotics, hydraulics, and pneumatics. Additional areas of instruction should include plumbing, rigging, basic machining, welding, and cutting.

- Recommended Grade(s): 12
- Required Prerequisites: Industrial Technical Maintenance I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Qualifies as a quantitative reasoning course

5776 Welding Technology I

WELD TECH I

Welding Technology I includes classroom and laboratory experiences that develop a variety of skills in oxy-fuel cutting and Shielded Metal Arc welding. This course is designed for individuals who intend to make a career as a Welder, Technician, Sales, Designer, Researcher or Engineer. Emphasis is placed on safety at all times. OSHA standards and guidelines endorsed by the American Welding Society (AWS) are used. Instructional activities emphasize properties of metals, safety issues, blueprint reading, electrical principles, welding symbols, and mechanical drawing through projects and exercises that teach students how to weld and be prepared for college and career success.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5778 Welding Technology II

WELD TECH II

Welding Technology II builds on the skills covered in Welding Technology I. Emphasis is placed on safety at all times. OSHA standards and guidelines endorsed by the American Welding Society (AWS) are used. Instructional activities emphasize properties of metals, safety issues, blueprint reading, electrical principles, welding symbols, and mechanical drawing through projects and exercises that teach students how to weld and be prepared for college and career success.

- Recommended Grade(s): 12
- Required Prerequisites: Welding Technology I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5782 Precision Machining I

PCSN MACH I

Precision Machining I provides students with a basic understanding of the precision machining processes used in industry, manufacturing, maintenance, and repair. The course instructs the student in industrial safety, terminology, tools and machine tools, measurement, and layout. Students will become familiar with the setup and operation of power saws, drill presses, lathes, milling machines, grinders, and an introduction to CNC (computer numerically controlled) machines.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Advanced Manufacturing
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Qualifies as a quantitative reasoning course
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5784 Precision Machining II

PCSN MACH II

Precision Machining II is a more in-depth study of skills learned in Precision Machining I, with a stronger focus in CNC setup/operation/programming. Classroom activities will concentrate on precision set-up and inspection work as well as machine shop calculations. Students will develop skills in advanced machining and measuring parts involving tighter tolerances and more complex geometry. A continued focus on safety will also be included.

- Recommended Grade(s): 12
- Required Prerequisites: Precision Machining I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Qualifies as a quantitative reasoning course

Agriculture

5002 Agribusiness Management

AG BUS MGMT

Agribusiness Management provides foundation concepts in agricultural business. It is a two semester course that introduces students to the principles of business organization and management from a local and global perspective, with the utilization of technology. Concepts covered in the course include accounting and record keeping, business planning and management, food and fiber, forms of business, finance, management, sales and marketing, careers, and leadership development. Students will demonstrate principles and techniques for planning, development, application and management of agribusiness systems through a supervised agriculture experience (work based learning) programs.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as an elective or directed elective for all diplomas.
- Qualifies as a quantitative reasoning course

5136 Landscape Management I

LAND MGMT I

Landscape Management is a two semester course that provides the student with an overview of the many career opportunities in the diverse field of landscape management. Students are introduced to the procedures used in the planning and design of a landscape using current technology practices, the principles and procedures involved with landscape construction, the determination of maintenance schedules, communications and management skills necessary in landscaping operations, and the care and use of equipment utilized by landscapers. Upon completion of the program, students have the opportunity to become Indiana Landscape Industry Certified through a state approved program.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as an elective or directed elective for all diplomas
- Qualifies as a quantitative reasoning course

- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5137 Landscape Management II

LAND MGMT II

Landscape Management II is a two semester course that extends the content and skills of Landscape Management and provides the student with in-depth exploration of the many career opportunities in the diverse field of landscape management. Students continue to build knowledge and skill in the procedures used in landscape planning and design using current industry standards and practices. Extended laboratory experiences include application of the principles and procedures involved especially in the Midwest and Great Lakes areas with landscape construction; turf management; scheduling and oversight of landscape maintenance; weed control; non-pathogenic and disease prevention, diagnosis, and treatment; communications; management skills necessary in landscaping operations; and the use and maintenance of equipment utilized by landscapers. Students should also participate in leadership development, supervised agricultural experience and career exploration activities in the area of landscape management.

- Recommended Grade(s): 12
- Required Prerequisites: Landscape Management I
- Recommended Prerequisites: Plant and Soil Science; or Horticulture Science
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as an elective or directed elective for all diplomas
- Qualifies as a quantitative reasoning course

5211 Veterinary Careers I

VET CRS I

Veterinary Careers I is a lab intensive course that introduces students to animal care and veterinary medicine. Through classroom and field experiences, students will attain the necessary skills to demonstrate standard protocols that are used in veterinary careers. This course also provides students with the knowledge, attitudes, and skills needed to make the transition from high school, to post-secondary opportunities, and to work in a variety of health science careers. Students are encouraged to focus on self-analysis to aid in their career selection. Job seeking and job maintenance skills, personal management skills, and completion of the application process for admission into a post-secondary program are also areas of focus. Participation in HOSA or FFA encourages development of leadership, communication, and career related skills, and opportunities for community service.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Animal Science; Advanced Life Science Animals
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5212 Veterinary Careers II

VET CRS II

Veterinary Careers II is an extended laboratory experience designed to provide students with the opportunity to assume the role of a veterinary assistant, and practice technical skills previously learned in the classroom; all while working at a qualified clinical site under the direction of licensed veterinarians. These sites may include animal clinics, hospitals or research laboratories. Throughout this course, students will focus on learning about the healthcare system and employment opportunities at a variety of entry levels; an overview of the healthcare delivery systems, healthcare teams and legal and ethical considerations; and obtaining the knowledge, skills and attitudes essential for providing basic care in veterinary clinics, hospitals and other related locations. Additionally, students will learn essential job related skills that include; monitoring and caring for animals before and after surgery; maintaining and sterilizing surgical instruments; cleaning and disinfecting kennels and operating rooms; providing emergency first aid to animals; giving medication to animals; appropriate techniques for collecting specimens and performing routine lab tests; and feeding and bathing animals. This course also provides students with the knowledge, attitudes, and skills needed to make the transition from high school, to post-secondary opportunities, and to work in a variety of health science careers. Students are encouraged to focus on self-analysis to aid in their career selection. Job seeking and job maintenance skills, personal management skills, and completion of the application process for admission into a post-secondary program are also areas of focus. Participation in HOSA or FFA encourages the development of leadership, communication and career related skills, and opportunities for community service.

- Recommended Grade(s): 12
- Required Prerequisites: Health Science Education I; or Veterinary Careers I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

Architecture and Construction

4830 Construction Trades: Electrical I

CONST ECT I

Construction Trades: Electrical I includes classroom and laboratory experiences focused on the installation and repair of the electrical and wiring systems of physical structures. This course includes instruction on the reading of technical drawings and their application in construction processes. Topics include the relationship between views and details, interpretation of dimension, transposing scale, tolerance, electrical symbols, sections, material lists, architectural plans, room schedules and plot plans. This course covers both AC and DC circuits. Studies include electron theory, Ohm’s Law, Watt’s Law, Kirchhoff’s Law, series circuits, series-parallel circuits, and other electrical concepts. Students will use the underlying scientific principles related to electricity, to complete construction projects. Mathematical principles will be used to solve electrical problems. Students will also interpret health, safety, and welfare standards and codes as dictated by local, state or federal agencies.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none

- Recommended Prerequisites: Introduction to Construction
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

4832 Construction Trades: Electrical II

CONST ECT II

Construction Technology: Electrical II includes classroom and laboratory experiences in residential wiring. This includes electrical service, metering equipment, lighting, switches, outlets and other common components. The course also covers methods of installation and maintenance of the residential wiring system in accordance with the current National Electrical Code. Additionally, it presents methods and techniques for troubleshooting appliances, motors, motor controls, relay wiring, commercial wiring and industrial wiring systems. It also covers wiring methods and material selection for commercial and industrial wiring systems. Studies include mechanical installation of hardware as well as electrical design and layout. Instruction in thinking critically to analyze, synthesize, and evaluate technical problems and information will also be covered as it relates to health, safety, and welfare standards and codes as dictated by local, state or federal agencies

- Recommended Grade(s): 12
- Required Prerequisites: Construction Trades: Electrical I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Qualifies as a quantitative reasoning course

5352 Housing and Interior Design Careers I

HIDC I

Housing and Interior Design Careers I prepares students for occupations and higher education programs of study related to the entire spectrum of career clusters that encompass careers related to housing, interiors, and furnishings. Topics include commercial applications of principles of design to creating aesthetic and functional residential and commercial environments; human, non-human, community, family, and financial resources for housing; housing and interiors materials and products; client-centered designing, drafting, blue printing, and space planning; rendering, elevations, and sketching; historical, technological, and environmental impacts on housing and interiors; zoning, building codes, regulations, and accessibility guidelines, and their impact on housing related outcomes. Ethical, legal, and safety issues as well as helping processes and collaborative ways of working with others are to be addressed. Intensive laboratory experiences with commercial applications are a required component of this course of study. Work based experiences in the housing, interiors, and/or furnishings industries are strongly encouraged.

- Recommended Grade(s): 11, 12

- Required Prerequisites: none
- Recommended Prerequisites: Preparing for College and Careers; Introduction to Housing and Interior Design
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5460 Housing and Interior Design Careers II

HIDC II

Housing and Interior Design Careers II prepares students for occupations and higher education programs of study related to the entire spectrum of career clusters that encompass careers related to housing, interiors, and furnishings. Topics include commercial applications of principles of design to creating aesthetic and functional residential and commercial environments, human, non-human, community, family, and financial resources for housing, housing and interiors materials and products, client-centered designing, drafting, blue printing, and space planning; rendering, elevations, and sketching; historical, technological, and environmental impacts on housing and interiors; zoning, building codes, regulations, and accessibility guidelines, and their impact on housing related outcomes. Ethical, legal, and safety issues as well as helping processes and collaborative ways of working with others are to be addressed. Intensive laboratory experiences with commercial applications are a required component of this course of study. Work based experiences in the housing, interiors, and/or furnishings industries are strongly encouraged.

- Recommended Grade(s): 12
- Required Prerequisites: Housing and Interior Design Careers I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5495 Construction Trades: Heavy Equipment II

CONST HVEQ II

Construction Technology Heavy Equipment II builds on the concepts learned in Heavy Equipment I. Students will explore more complex operations with various land-moving and construction equipment within the context of OSHA and industrial operation and safety standards. Emphasis should be placed on controlling equipment to perform specific operations per industry standards and on basic troubleshooting and maintenance procedures.

- Recommended Grade(s): 12
- Required Prerequisites: Construction Trades: Heavy Equipment I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum

- Counts as a directed elective or elective for all diplomas

5496 Construction Trades: HVAC I

CONST HVAC I

Construction Technology: HVAC I includes classroom and laboratory experiences focused on heat generation, ventilation, and cooling/refrigeration systems. This course introduces scientific and mathematical principles applicable in the installation, operation, and maintenance of HVAC systems. Types of units, parts, basic controls, functions, and applications will be covered. Additional topics include tool and meter use, temperature measurement, heat flow, the combustion process, and pipe installation practices. This course also emphasizes health, safety, and welfare standards/codes as mandated by professional and governmental agencies.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Construction
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5497 Construction Trades: Heavy Equipment I

CONST HVEQ I

Construction Technology Heavy Equipment I introduces students to basic heavy equipment operations. Students will learn how to control various land-moving and construction equipment. Emphasis should be placed on appropriate OSHA equipment safety standards. Students will be able to identify when to use specific equipment and know the appropriate operation and safety standards associated with it. Additional emphasis should be placed on performing simple operations with equipment such as basic excavation and debris movement.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Construction
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5498 Construction Trades: HVAC II

CONST HVAC II

Construction Technology: HVAC II builds on concepts introduced in HVAC I. This course will emphasize reading blueprints and other technical documents, as well as troubleshooting common mechanical and electrical problems encountered when servicing HVAC systems. Additional topics include combustion testing, venting and air requirements, electrical control systems, and electrical motor basics. Students will hone their science and math skills in HVAC system installation, maintenance, or repair projects.

- Recommended Grade(s): 12
- Required Prerequisites: Construction Trades: HVAC I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Qualifies as a quantitative reasoning course

5578 Construction Trades II

CONST TRA II

Construction Trades II builds on the formation, installation, maintenance, and repair skills learned in Construction Trades I. Information on materials, occupations, and professional organizations within the industry will be covered. Students will develop basic knowledge, skills, and awareness of interior trim and the installation of drywall, moldings, interior doors, kitchen cabinets, and baseboard moldings. Students will also develop exterior finishing competencies. The course includes instruction on the installation of cornices, windows, doors and various types of sidings currently used in industry. Studies will also focus on the design and construction of roof systems and the use of framing squares for traditional rafter and truss roofing.

- Recommended Grade(s): 12
- Required Prerequisites: Construction Trades I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Qualifies as a quantitative reasoning course.

5580 Construction Trades I

CONST TECH I

Construction Trades I classroom and laboratory experiences involve the formation, installation, maintenance, and repair of buildings, homes, and other structures. A history of construction, future trends and career options, reading technical drawings and transforming those drawings into physical structures are covered. The relationship of views and details, interpretation of dimension, transposing scale, tolerance, electrical symbols, sections, materials list, architectural plans, geometric construction, three dimensional drawing techniques, and sketching will be presented as well as elementary aspects of residential design and site work. Areas of emphasis will include print reading and drawing, room schedules and plot plans. Students will examine the design and construction of floor and wall systems and develop layout and floor construction skills. Blueprints and other professional planning documents will also be covered. Students will develop an understanding and interpretation of the Indiana Residential Code for one and two-family dwellings and safety practices including Occupational Safety and Health Administration Safety and Health Standards for the construction industry.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none

- Recommended Prerequisites: Introduction to Construction
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5592 Building and Facilities Management I

BF MGMT I

Building and Facilities Management I is an instructional program that prepares students to service a variety of structures including commercial and institutional buildings. This course provides instruction in basic maintenance and repair skills related to air conditioning, heating, plumbing, electrical, and other mechanical systems. Emphasis should be placed on the use of hand and power tools and the selection and use of appropriate professional supplies needed for care, repair and maintenance. Students will reinforce their mathematical skills through the practical study of measurement units, ratios, area, and volume calculations. Scientific knowledge will be enhanced through the emphasis on environmental concerns and chemical and electrical safety instruction. Language skills will be strengthened through oral and written work intended to improve students' abilities to communicate with supervisors, colleagues, and clients.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Construction
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5593 Building and Facilities Maintenance I

BF MANT I

Building and Facilities Maintenance I prepares students to perform routine care and maintenance activities in commercial and institutional buildings. Activities should include classroom and laboratory experiences in all phases of the care and cleaning of buildings. Emphasis should be placed on the selection and use of professional supplies needed for care and maintenance as well as Occupation Safety and Health Administration (OSHA) safety standards and appropriate guidelines in working with various chemicals and processes.

- Recommended Grade(s): 11
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Construction
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5594 Building and Facilities Maintenance II

BF MANT II

Building and Facilities Maintenance II builds on skills learned in Building and Facilities Maintenance I and encompasses instruction in basic upkeep and repair skills related to the mechanical systems within structures. Emphasis should be placed on the use of hand and power tools and the selection and use of appropriate supplies needed for care, repair and maintenance. Students will reinforce their mathematical skills through the practical study of measurement units, ratios, area, and volume calculations. Scientific knowledge will be enhanced through the emphasis on environmental concerns and chemical and electrical safety instruction. Language skills will be strengthened through oral and written work intended to improve students' abilities to communicate with supervisors, colleagues, and clients.

- Recommended Grade(s): 12
- Required Prerequisites: none
- Recommended Prerequisites: Building and Facilities Maintenance I
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5595 Building Facilities and Management II

BF MGMT II

Building and Facilities Management II Introduces students to the tools, processes and procedures needed to maintain the various HVAC, plumbing and electrical systems found in all buildings and facilities. Students will learn basic operation and troubleshooting techniques for these systems with an emphasis placed on utilizing appropriate maintenance standards to increase the working life of these systems. Additionally, a focus should be placed on modern automated facility efficiency systems.

- Recommended Grade(s): 12
- Required Prerequisites: Building and Facilities Management I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

Arts, AV Tech, and Communication

4516 Computer Illustration and Graphics

COMP ILL GRPH

Computer Illustration and Graphics introduces students to the computer's use in visual communication. The focus of the course is on basic computer terminology and use, mastering fundamental skills, and developing efficient working styles. These skills are then developed by creating work with imaging, drawing, interactive, and page layout software. The course includes organized learning experiences that incorporate a variety of visual art techniques as they relate to the design and execution of layouts and illustrations for advertising, displays, promotional materials, and instructional manuals. This course also covers advertising theory and preparation of copy, lettering, posters, vector illustrations, graphics and logos, and artwork in addition to incorporation of photographic images. Communication skills will be emphasized through the study of effective methods used to design products that impart information and ideas. Advanced

instruction might include experiences in silk screening and air brush techniques as well as activities in designing product packaging and commercial displays or exhibits.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Digital Applications and Responsibility
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5232 Applied Interactive Media

INT MEDIA

Applied Interactive Media prepares students for careers in business and industry working with interactive media products and services; which includes the entertainment industries. This course emphasizes the development and use of digitally generated or computer-enhanced products. Students will develop an understanding of professional business practices including the importance of ethics, communication skills, and knowledge of the “virtual workplace”.

- Recommended Grade(s): 11,12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits:
- Counts as an elective or Employability requirement for the Certificate of Completion

5232 Interactive Media

INT MEDIA

Interactive Media prepares students for careers in business and industry working with interactive media products and services which includes the entertainment industries. This course emphasizes the development of digitally-generated or computer-enhanced products using multimedia technologies. Students will develop an understanding of professional business practices including the importance of ethics, communication skills, and knowledge of the “virtual workplace.”

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Communications; Digital Applications and Responsibility
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5420 Fashion & Textiles Careers I

FSHN TXT I

Fashion and Textiles Careers I prepares students for occupations and higher education programs of study related to the entire spectrum of careers in the fashion industry. This course builds a foundation that prepares students to enter the Fashion Careers II course. Major topics include: review of the dimensions of clothing, investigation of design elements and principles, evaluating manufacturing process, reviewing the processes from fiber production to items of clothing being worn, overall review of the textile and apparel industry, investigation of education and related careers. The course of study includes, but is not limited to: the teaching profession, the learner and the learning process, planning instruction, learning environment, and instructional and assessment strategies. Extensive field experiences in one or more classroom settings, resumes, and career portfolios are required components. A standards-based plan guides the students' field experiences. Students are monitored in their field experiences by the Education Professions II teacher. Articulation with post-secondary programs is encouraged.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Preparing for College and Careers; Introduction to Fashion and Textiles Foundations; Entrepreneurship and Marketing courses
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5421 Fashion & Textiles Careers II

FSHNTX II

Fashion and Textiles Careers II prepares students for occupations and higher education programs of study related to the entire spectrum of careers in the fashion industry. This course builds a foundation that prepares students to enter into higher education programs of study related to the entire spectrum of the career clusters that encompass careers in fashion, apparel, and other textiles management, production, and services. Major topics include: fashion design, application of design elements and principles, the business of fashion designers, evaluating manufacturing processes, reviewing distribution processes in the fashion industry, garment costs and business math, reviewing the processes from fiber production to items of clothing being worn, overall review of the textile and apparel industry, fashion promotion, dynamics of fashion demand, writing fashion copy, investigation of fashion designers, customer relations and best practices, fashion merchandising, operational costs, forecasting trends, use of technology in the fashion industry, and career exploration and experience. A project-based approach with commercial/industry applications is a key component of this course of study. Student experiences may be either school-based or "on-the-job" or a combination of the two. Work based experiences in the fashion industry are strongly encouraged. A standards-based plan guides the students' experiences. This course is a core component of four-year career plans for the career clusters of Personal & Commercial Services; Manufacturing & Processing; and Art, A/V Technology & Communications. It is recommended for students with interests in apparel, textiles, and fashion career pathways and provides the foundation for continuing study. Students are monitored in their experiences by the Fashion Careers II teacher. Articulation with post-secondary programs is encouraged.

- Recommended Grade(s): 12
- Required Prerequisites: Fashion and Textiles Careers I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5530 3D Computer Animation and Visualization

3D CMP AN

3D Computer Animation and Visualization prepares students to use computer applications and related visual and sound imaging techniques to create and manipulate images and information. The course includes instruction in three-dimensional solid model creation, sketching, and storyboarding, time and motion study, color and lighting studies, and camera positioning. Using current computer animation software that reflects industry standards, students should produce projects for commercial applications in one or more of the following areas: engineering, architectural, or industrial design; marketing; video production; internet design; electronic gaming; and, education and training.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Computers in Design and Production
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5570 Commercial Photography

COMM PHOTO

Commercial Photography is an organized learning experience that includes theory, laboratory, and studio work as each relates to all phases of camera use, photographic processing, and electronic photographic editing. Instruction covers the topics of composition and color dynamics; contact printing and enlarging; developing film; lighting techniques and meters; large and medium format cameras and other current photographic equipment used for portrait, commercial, and industrial photography. Focus is placed on camera operation and composition related to traditional photographic principles and also tools and creative effects for editing and/or enhancing photographs. Instruction emphasizes the planning, development, and production of materials that visually communicate ideas and information.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Communications
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5572 Graphic Imaging Technology

GRAPH TECH

Graphic Imaging Technology will include organized learning experiences that focus on theory and laboratory activities in pre-press, press and finishing operations. Emphasis will be placed on elements of design and layout leading to computerized electronic image generation, plate preparation, pressroom operations, and finishing techniques. Instructional activities will enhance student's language arts skills through the use of proofreading, spelling, and punctuation exercises. The course will include actual production processes in conjunction with classroom assignments embracing the technologies of printing, publishing, packaging, electronic imaging, and their allied industries.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Computer Illustration and Graphics
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5986 Radio and Television I

RAD TV I

Radio and Television I focuses on communication, media and production. Emphasis is placed on career opportunities, production, programming, promotion, sales, performance, and equipment operation. Students will also study the history of communication systems as well as communication ethics and law. Students will develop oral and written communication skills, acquire software and equipment operation abilities, and integrate teamwork skills. Instructional strategies may include a hands-on school-based enterprise, real and/or simulated occupational experiences, job shadowing, field trips, and internships.

- Recommended Grade(s): 11,12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Communications
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5992 Radio and Television II

RAD TV II

Radio and Television II prepares students for admission to television production programs at institutions of higher learning. Students train on professional equipment creating a variety of video projects. During this second-year program students integrate and build on first-year curriculum while mastering advanced concepts in production, lighting and audio.

- Recommended Grade(s): 12
- Required Prerequisites: Radio and Television I
- Recommended Prerequisites: none

- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

4574 Web Design

WEB DESIGN

Web Design is a course that provides instruction in the principles of web design using HTML/XHTML and current/emerging software programs. Areas of instruction include audience analysis, hierarchy layout and design techniques, software integration, and publishing. Instructional strategies should include peer teaching, collaborative instruction, project-based learning activities, and school community projects.

- Recommended Grade(s): 11,12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Communications; Digital Applications and Responsibility
- Credits: Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum Credits:
- Counts as a directed elective or elective for all diplomas

Business

4558 Global Economics

GLOB ECON

Global Economics is a course that provides students with an understanding of their role as consumers and producers in domestic and global economies. This course enables students to understand how the economic system operates while comprehending their role in that system. Students deal with public policy, international economics, microeconomics, and macroeconomics in comparing economic systems and using selected economic measures.

Instructional strategies may include development of a school-based enterprise, case studies, field trips, guest speakers, job shadowing, simulations, Internet research, and business experiences.

- Recommended Grade(s): 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: Credits: 1 semester course, 1 credit per semester, 1 credit maximum
- Counts as a directed elective or elective for all diplomas
- May count as the one credit of the Economics graduation requirement
- Qualifies as a quantitative reasoning course

4560 Business Law and Ethics

BUS LAW ETH

Business Law and Ethics provides an overview of the legal system in the business setting. Topics covered include: basics of the judicial system, contract, personal, employment and

property law. Application of legal principles and ethical decision-making techniques are presented through problem-solving methods, case review, and situational analyses.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5258 Banking and Investment Capstone

BANK INVEST

Banking and Investment Capstone addresses the need of schools in areas that have workforce demand in the finance industry. It analyzes and synthesizes high-level skills needed for a multitude of careers in the banking and investment industry. Students learn banking, investments, and other finance fundamentals and applications related to financial institutions, business and personal financial services, investment and securities, risk management products, and corporate finance. The course provides students with work based learning experiences to acquire and apply knowledge and skills in one or more careers in the industry.

- Recommended Grade(s): 12
- Required Prerequisites: Introduction to Accounting; Advanced Accounting
- Recommended Prerequisites: Algebra II
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Qualifies as a quantitative reasoning course

5268 Administrative and Office Management

ADV BUS

Administrative and Office Management prepares students to plan, organize, direct, and control the functions and processes of a firm or organization and to perform business-related functions. Students are provided opportunities to develop aptitudes and apply skills and knowledge in the areas of business administration, management, and finance. Individual experiences will be based upon the student’s career and educational goals.

- Recommended Grade(s): 12
- Required Prerequisites: Principles of Business Management or Marketing Fundamentals
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5601 Supply Chain Management and Logistics

SCM LGST

Supply Chain Management and Logistics is a study of the basic concepts included in the field of logistics and supply chain management. Topics covered include: supply chain management,

customer service, transportation, purchasing, inventory, and warehouse management and introduces students to the various components of logistics. Topics will include logistics systems, supply chain management, order, demand inventory and warehouse management, and the control systems and automated components of logistics systems. The course also focuses on the terminology of supply chain management including the history, integration into the business plan, partnerships, profits and saving potential, sources of supply and other issues concerning supply chain management and operating environments. This course includes MSSC concepts required to earn the CLA/CLT MSSC certification.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5602 Warehouse Operations and Materials Handling

WOMH

Warehouse Operations and Materials Handling introduces the physical components of finished product handling. The focus is on the methods, mechanical equipment, systems and related controls used to achieve these functions. Topics covered include product receiving, storage methods, order picking, inventory control, lean concepts, packaging, and palletizing. Operating and maintaining material handling equipment in a safe and efficient manner in an industrial setting is stressed. The course applies these concepts to develop a work environment that promotes continuous improvement, eliminates waste, reduces operating cost, improves quality, and achieves measurable improvement in customer satisfaction.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Advanced Manufacturing and Logistics
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5962 Merchandising

MERCH

Merchandising is a specialized marketing course providing instruction of marketing practices that support the sale of products to retail consumers. Emphasis is placed on oral and written communications, problem solving and critical thinking skills as they relate to product design, selling, pricing, distribution, retail promotion, visual merchandising, retail cycles, retail theories, and career opportunities in the retail industry. This course can focus on a specific retail sector, such as fashion, sporting goods, or electronics.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Marketing Fundamentals
- Recommended Prerequisites: none
- Credits: Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum

- Counts as a directed elective or elective for all diplomas

5982 Marketing in Hospitality and Tourism

MKT HOSP

Marketing in Hospitality and Tourism is a specialized course that develops student understanding of marketing in the hospitality, travel, and tourism industry. Students gain experiences marketing-information management, pricing, product/service management, promotion, and selling in the hospitality, travel, and tourism

- Recommended Grade(s): 11, 12
- Required Prerequisites: Marketing Fundamentals
- Recommended Prerequisites: none
- Credits: Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5984 Sports and Entertainment Marketing

SPRT ENT MRK

Sports and Entertainment Marketing is a specialized marketing course that develops student understanding of the sport/event industries, their economic impact, and products, distribution systems and strategies, pricing considerations, product/service management, and promotion. Students acquire an understanding and appreciation for planning. Throughout the course, students are presented problem-solving situations for which they must apply academic and critical-thinking skills. Participation in cooperative education is an optional instructional method, giving students the opportunity to apply newly acquired marketing skills in the workplace.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Marketing Fundamentals
- Recommended Prerequisites: none
- Credits: Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

Education

5404 Education Professions II

ED PROF II

Education Professions II prepares students for employment in education and related careers and provides the foundation for study in higher education in these career areas. An active learning approach that utilizes higher order thinking, communication, leadership, and management processes is recommended in order to integrate suggested topics into the study of education and related careers. The course of study includes, but is not limited to: the teaching profession, the learner and the learning process, planning instruction, learning environment, and instructional and assessment strategies. Extensive field experiences in one or more classroom settings, resumes, and career portfolios are required components. A standards-based plan guides the students' field experiences. Students are monitored in their field experiences by the Education Professions II teacher. Articulation with post-secondary programs is encouraged.

- Recommended Grade(s): 12
- Required Prerequisites: Education Professions I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5406 Early Childhood Education II

ECE II

Early Childhood Education II prepares students for employment in early childhood education and related careers that involve working with children from birth to 8 years (3rd grade) and provides the foundations for study in higher education that leads to early childhood education and other child-related careers. ECE II is a sequential course that builds on the foundational knowledge and skills of Early Childhood Education I, which is a required prerequisite. In ECE II students further refine, develop, and document the knowledge, skills, attitudes, and behaviors gained in the foundational course. Major topics of ECE II include: overview of the Child Development Associate (CDA) credential, safe and healthy learning environment, physical and intellectual competence, social and emotional development, relationships with families, program management, and professionalism. The course standards parallel the expectations and documentation required for Child Development Associate (CDA) credentialing. These include rigorous levels of self-critique and reflection, performance assessments by instructors, parents, and other professionals, comprehensive assessment of knowledge through a standardized exam, and other professional documentation. Extensive experiences in one or more early childhood education settings are required: a minimum total of 480 hours must be accrued in ECE I and ECE II. These experiences may be either school-based or "on-the-job" in community-based early childhood education centers, or in a combination of the two. A standards-based plan for each student guides the early childhood education experiences. Students are monitored in these experiences by the Early Childhood Education II teacher. Dual credit agreements with post-secondary programs are encouraged.

- Recommended Grade(s): 12
- Required Prerequisites: Early Childhood Education I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5408 Education Professions I

ED PROF I

Education Professions I provides the foundation for employment in education and related careers and prepares students for study in higher education. An active learning approach that utilizes higher order thinking, communication, leadership, and management processes is recommended in order to integrate suggested topics into the study of education and related careers. The course of study includes, but is not limited to: the teaching profession, the learner and the learning process, planning instruction, learning environment, and instructional and

assessment strategies. Exploratory field experiences in classroom settings and career portfolios are required components. A standards-based plan guides the students' field experiences.

Students are monitored in their field experiences by the Education Professionals I teacher. Articulation with post-secondary programs is encouraged.

- Recommended Grade(s): 11,12
- Required Prerequisites: none
- Recommended Prerequisites: Nutrition and Wellness; Child Development, Advance Child Development; and Interpersonal Relationships
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5412 Early Childhood Education I

ECE 1

Early Childhood Education prepares students for employment in early childhood education and related careers that involve working with children from birth to 8 years (3rd grade) and provides the foundations for study in higher education that leads to early childhood education and other child-related careers. A project-based approach that utilizes higher order thinking, communication, leadership, and management processes is recommended in order to integrate the study of suggested topics. Major course topics include: career paths in early childhood education, promoting child development and learning, building family and community relationships, observing, documenting, and assessing to support young children and families, using developmentally effective approaches, using content knowledge to build meaningful curriculum, and becoming an early childhood education professional. The course provides an overview of the history, theory, and foundations of early childhood education as well as exposure to types of programs, curricula, and services available to young children. Students examine basic principles of child development, importance of family, licensing, and elements of quality care of young children. The course addresses planning and guiding developmentally appropriate activities for young children in various childcare settings, developmentally appropriate practices of guidance and discipline, application of basic health, safety, and nutrition principles when working with children, an overview of management and operation of licensed child care facilities or educational settings, child care regulations and licensing requirements, and employability skills. Intensive experiences in one or more early childhood settings, resumes, and career portfolios are required components. A standards-based plan for each student guides the laboratory/field experiences. Students are monitored in their laboratory/field experiences by the Early Childhood Education teacher. Student laboratory/field experiences may be either school- based or "on-the-job" in community-based early childhood education centers or in a combination of the two. Dual credit agreements with post-secondary programs are encouraged.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none

- Recommended Prerequisites: Nutrition and Wellness; Child Development; and Advanced Child Development
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

Health Sciences

5203 Dental Careers I

DENTCRRS I

Dental Careers I prepares the student for an entry-level dental assisting position. Emphasis is placed on the clinical environment, chair-side assisting, equipment/instrument identification, tray set-ups, sterilization, and characteristics of microorganisms and disease control. In addition, oral, head and neck anatomy, basic embryology, histology, tooth morphology, charting dental surfaces, and illness are all introduced. Simulated in-school laboratories and/or extended laboratory experiences are also included to provide opportunities for students to further develop clinical skills and the appropriate ethical behavior. Leadership skills are developed and community service opportunities are provided through participation in HOSA. Students have the opportunity to compete in a number of competitive events at both the state and national level.

- Recommended Grade(s): 11,12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5204 Dental Careers II

DENTCRRS II

Knowledge of the administrative planning, bookkeeping, recall programs, banking, tax records, computer software, insurance, office practice and management as related to the dental office. In addition, students will practice Oral and Maxillofacial Surgery, Periodontics, Endodontics, Prosthodontics, Pediatric Dentistry, and Orthodontics. Opportunity for increased skill development in clinical support and business office procedures is routinely provided. The importance of the clinical behavior of materials and biological factors are also stressed.

Leadership skills are developed and community service opportunities are provided through participation in HOSA. Students have the opportunity to compete in a number of competitive events at both the state and national level.

- Recommended Grade(s): 12
- Required Prerequisites: Dental Careers I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum

- Counts as a directed elective or elective for all diplomas

5214 Health Science Education II: Pharmacy

HSE II PHARM

Health Science Education II: Pharmacy is an extended laboratory experience designed to provide students with the opportunity to assume the role of pharmacy technician and practice technical skills previously learned in the classroom; all while working at the student's choice of clinical site and under the direction of licensed pharmacists. These sites may include pharmacies found in grocery and drug stores, or in long term facilities. Throughout the course, students will focus on learning about the healthcare system and employment opportunities at a variety of entry levels; an overview of the healthcare delivery systems, healthcare teams, and legal and ethical considerations; and obtaining the knowledge, skills and attitudes essential for providing basic care in a variety of healthcare settings. Additionally, students will build their essential job related skills to; record patient information, count tablets and measure medications, mix medications or ointments, package and label prescriptions, accept payment and process insurance claims, and do routine pharmacy tasks such as organizing medications, inventory, taking phone calls, cleaning, and customer service. This course also provides students with the knowledge, attitudes, and skills needed to make the transition from school to work in health science careers. Students are encouraged to focus on self-analysis to aid in their career selection. Job seeking and job maintenance skills, personal management skills, and completion of the application process for admission into a post-secondary program are also areas of focus. Participation in HOSA encourages the development of leadership, communication and career related skills, and opportunities for community service.

- Recommended Grade(s): 12
- Required Prerequisites: none
- Recommended Prerequisites: Health Science Education I
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5215 Health Science Education II: Physical Therapy

HSE II PT

Health Science Education II: Physical Therapy is an extended laboratory experience designed to provide student with the opportunity to assume the role of a physical therapy assistant and practice technical skills previously learned in the classroom while working at qualified clinical sites and under the direction of licensed physical therapists. These sites may include extended care facilities, hospitals, home health agencies and a variety of other healthcare settings. Throughout the course, students will focus on learning about the healthcare system and employment opportunities at a variety of entry levels within healthcare; an overview of the healthcare delivery systems, healthcare teams and legal and ethical considerations; and obtaining the knowledge, skills and attitudes essential for providing basic care in a variety of healthcare settings. Additionally, students will build their essential job related skills to; help patients perform specific exercises; use massage and stretching techniques for treatment, aide patients with devises for movement; observe patient progress; educate patients and families; assist in cleaning treatment areas; and provide clerical assistance. This course also provides

students with the knowledge, attitudes, and skills needed to make the transition from high school, to post-secondary opportunities, and to work in a variety of health science careers. Students are encouraged to focus on self-analysis to aid in their career selection. Job seeking and job maintenance skills, personal management skills, and completion of the application process for admission into a post-secondary program are also areas of focus. Participation in HOSA encourages the development of leadership, communication and career related skills, and opportunities for community service.

- Recommended Grade(s): 12
- Required Prerequisites: none
- Recommended Prerequisites: Health Science Education I
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Fulfills a science course requirement for all diplomas
- Counts as a directed elective or elective for all diplomas

5282 Health Science Education I

HLTH ED I

Health Science Education I is a course designed to provide a foundation of skills development to specific health careers including; patient care, nursing care, dental care, animal care, medical laboratory, and public health. Students will also receive an introduction to healthcare systems, anatomy, physiology, and medical terminology. Laboratory experiences with industry applications are organized and planned around the activities associated with the student's career objectives. Job seeking and job maintenance skills, personal management skills, self-analysis to aid in career selection and completion of the application process for admission into a post-secondary program of their choice are also included in this course. Participation in HOSA encourages the development of leadership, communication and career related skills, and opportunities for community service.

- Recommended Grade(s): 11
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Health Science Careers
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, maximum of 2 credits
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5284 Health Science Education II: Nursing

HSE II NURS

Health Science Education II: Nursing is an extended laboratory experience designed to provide students with the opportunity to assume the role of nurse assistant. Student have the opportunity to learn, and then to practice those technical skills previously learned in the classroom at qualified clinical sites while under the direction of licensed nurses. These sites may include extended care facilities, hospitals and home health agencies. Throughout the course, students will focus on learning about the healthcare system and employment

opportunities at a variety of entry levels of the healthcare field; an overview of the healthcare delivery systems, healthcare teams and legal and ethical considerations; and obtaining the knowledge, skills and attitudes essential for providing basic care in a variety of healthcare settings. Additionally, students will build their essential job related skills such as providing appropriate personal care to patients; reporting necessary information to nursing staff; operating and monitoring medical equipment; teaching and assisting patients and families with the management of their illness or injury; and performing general health screenings. This course provides students with the knowledge, attitudes, and skills needed to make the transition from high school, to post-secondary opportunities, and to work in a variety of health science careers. Students are encouraged to focus on self-analysis to aid in their career selection. Job seeking and job maintenance skills, personal management skills, and completion of the application process for admission into a post-secondary program are also areas of focus. Participation in HOSA encourages the development of leadership, communication and career related skills, and opportunities for community service.

- Recommended Grade(s): 12
- Required Prerequisites: none
- Recommended Prerequisites: Health Science Education I
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5288 Health Science Education II: Medical Forensics

HSE II FOREN

Health Science Education II: Medical Forensics is a course designed to prepare students to assume the role of a forensic examiner assistant through the practice and application of previously learned technical skills. Some of those skills include information learned about healthcare and delivery systems, employment opportunities, medical terminology, and legal and ethical considerations of working in the healthcare field. While under the direction of licensed Forensic Examiners, and in an extended work based learning laboratory experience, students are prepared with the knowledge, skills and attitudes essential for basic forensics.

- Recommended Grade(s): 12
- Required Prerequisites: none
- Recommended Prerequisites: Health Science Education I
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5290 Health Science Education II: Athletic Training

HSE II ATH

Health Science Education II: Athletic Training is an extended laboratory experience at a qualified clinical site designed for students to assume the role of an athletic trainer assistant and practice using the technical skills and information previously learned in the classroom. This course prepares students with the knowledge, skills and attitude essential for providing basic care under the direction of licensed Athletic Trainers. Throughout this course, students will focus

on learning about the healthcare system and employment opportunities at a variety of entry levels, an overview of healthcare delivery systems, and legal and ethical considerations of working in the healthcare field.

- Recommended Grade(s): 12
- Required Prerequisites: none
- Recommended Prerequisites: Health Science Education I
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

Hospitality and Human Services

5344 Biochemistry of Foods

BIOCHEM FOOD

Biochemistry of Foods is a two semester course that provides students with opportunities to participate in a variety of activities including laboratory work. This is an in-depth study of the application of scientific principles integrating biology, chemistry, and microbiology in the context of foods and the global food industry. Students enrolled in this course formulate, design, and carry out food-based laboratory and field investigations as an essential course component.

Students understand how biology, chemistry, and physics principles apply to the composition of foods, the nutrition of foods, food product development, food processing, food safety and sanitation, food packaging, and food storage. Students completing this course will be able to apply the principles of scientific inquiry to solve problems related to biology, physics, and chemistry in the context of highly advanced industry applications of foods.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Biology; Chemistry; Nutrition and Wellness; Advanced Nutrition and Wellness
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Fulfills a science requirement for all diplomas
- Qualifies as a quantitative reasoning course

5346 Culinary Arts and Hospitality II: Culinary Arts

CUL HOSP II: CUL ARTS

Culinary Arts and Hospitality II: Culinary Arts prepares students for occupations and higher education programs of study related to the entire spectrum of careers in the food industry, including (but not limited to) food production and services; food science, dietetics, and nutrition; and baking and pastry arts. Major topics for this advanced course include: basic baking theory and skills, introduction to breads, introduction to pastry arts, nutrition, nutrition accommodations and adaptations, cost control and purchasing, and current marketing and trends. Instruction and intensive laboratory experiences include commercial applications of principles of nutrition, aesthetic, and sanitary selection; purchasing, storage, preparation, and service of food and food products; using and maintaining related tools and equipment; baking and pastry arts skills;

managing operations in food service, food science, or hospitality establishments; providing for the dietary needs of persons with special requirements; and related research, development, and testing. Intensive laboratory experiences with commercial applications are a required component of this course of study. Student laboratory experiences may be either school-based or "on-the-job" or a combination of the two. Advanced Culinary Arts builds upon skills and techniques learned in Culinary Arts and Hospitality Management, which must be successfully completed before enrolling in this advanced course. Work based experiences in the food industry are strongly encouraged. A standards-based plan guides the students' laboratory and work based experiences. Students are monitored in these experiences by the Advanced Culinary Arts teacher. Articulation with post-secondary programs is encouraged.

- Recommended Grade(s): 12
- Required Prerequisites: Culinary Arts and Hospitality I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5440 Culinary Arts and Hospitality I

CULART HOSP

Culinary Arts and Hospitality I prepares students for occupations and higher education programs of study related to the entire spectrum of careers in the hospitality industry. This course builds a foundation that prepares students to enter the Advanced Culinary Arts or Advanced Hospitality courses. Major topics include: introduction to the hospitality industry; food safety and personal hygiene; sanitation and safety; regulations, procedures, and emergencies; basic culinary skills; culinary math; and food preparation techniques and applications; principles of purchasing, storage, preparation, and service of food and food products; ; apply basic principles of sanitation and safety in order to maintain safe and healthy food service and hospitality environments; use and maintain related tools and equipment; and apply management principles in food service or hospitality operations. Intensive laboratory experiences with commercial applications are a required component of this course of study. Student laboratory experiences may be either school-based or "on-the-job" or a combination of the two. Work based experiences in the food industry are strongly encouraged. A standards-based plan guides the students' laboratory experiences. Students are monitored in their laboratory experiences by the Culinary Arts and Hospitality teacher. Articulation with post-secondary programs is encouraged.

- Recommended Grade(s): 11,12
- Required Prerequisites: none
- Recommended Prerequisites: Nutrition and Wellness; Introduction to Culinary Arts and Hospitality
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, maximum of 2 credits
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5456 Nutrition Science Careers I

NUT SCI CAR I

Nutrition Science Careers I is an instructional program that introduces students to careers in nutrition, dietetics, food science, food research and development, and related careers. The course of study includes topics and issues in nutrition; food science topics and issues; topics related to management of daily living needs of individuals and families; nutrition and foods for children and the elderly; topics related to cleaning and maintenance, purchasing, and food preparation; managing operations in food production, food science, or food research and development establishments; related research, development, and testing. Intensive laboratory experiences with industry applications are a required component of this course of study. Work based experiences in food and nutrition science careers are strongly encouraged

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Nutrition and Wellness; Advanced Nutrition and Wellness; Advanced Life Science Foods; or Biochemistry of Foods
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, maximum of 2 credits
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5457 Nutrition Science Careers II

NUT SCI CAR II

Nutrition Science Careers II builds on content and skills of Nutrition Science Careers I and prepares students for careers in and higher education programs related to nutrition, dietetics, food science, food research and development, and related careers that focus on assisting individuals and families in managing their personal, family, and social needs regarding nutrition, diet, and foods. The course of study includes, but is not limited to: advanced topics and issues in nutrition; advanced food science topics and issues; food and nutrition for individuals and families with special needs and disadvantaging conditions; topics related to management of daily living needs of individuals and families; nutrition and foods in child care and convalescent care; topics and issues related to maintaining the food supply; topics related to cleaning and maintenance, purchasing, and food preparation; managing operations in food production, food science, or food research and development establishments; providing for the dietary needs of persons with special requirements; related research, development, and testing. Ethical, legal, and safety issues as well as helping processes and collaborative ways of working with others are to be addressed. Intensive laboratory experiences with industry applications are a required component of this course of study. Work based experiences in food and nutrition science careers are strongly encouraged. This course provides the foundation for study in higher education that leads to related careers.

- Recommended Grade(s): 12
- Required Prerequisites: Nutrition Science Careers I
- Recommended Prerequisites: none

- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5458 Culinary Arts and Hospitality II: Hospitality Management

CUL HOSP II: HOS MGMT

Culinary Arts and Hospitality II: Hospitality Management prepares students for employment in the hospitality industry. It provides the foundations for study in higher education that leads to a full spectrum of hospitality careers. This is a broad-based course that introduces students to all segments of hospitality, what it includes, and career opportunities that are available; provides a survey of management functions, highlighting basic theories and facts; and exposes students to current trends and current events within the industry. Three major goals of this course are for students to be able to: Identify current trends in hotel and restaurant management, distinguish the difference between hospitality and tourism, and state differences in front of the house versus back of the house. Intensive experiences in one or more hospitality industry settings are a required component of the course. A standards-based plan for each student guides the industry experiences. Students are monitored in their industry experiences by the Advanced Hospitality Management teacher. Industry experiences may be either school-based or “on the job” in community-based hospitality settings, or in a combination of the two.

- Recommended Grade(s): 11,12
- Required Prerequisites: none
- Recommended Prerequisites: Nutrition and Wellness; Introduction to Culinary Arts and Hospitality
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5336 Human and Social Services I

HUMN SRVS I

Human and Social Services I is an introductory/exploratory course for students interested in careers in human and community services and other helping professions. Areas of exploration include family and social services, youth development, and adult and elder care, and other for-profit and non-profit services. This project-based course will help students integrate higher order thinking, communication, leadership, and management processes to conduct investigations in human and social services at the local, state, national, or global/world level. Research and development, interdisciplinary projects, and/or collaboration with post-secondary faculty, community agencies or organizations, or student organizations are appropriate approaches.

Students will be introduced to human and social services professions through presentations from a variety of guest speakers, job shadowing, field trips and introductory and exploratory field experiences. Case studies, role play, and application of professional codes of ethics will be utilized reflecting the challenges of working in diverse communities. Service learning experiences are highly recommended. Achievement of applicable FACS, academic, and employability competencies will be documented through a student portfolio.

- Recommended Grade(s): 11, 12

- Required Prerequisites: none
- Recommended Prerequisites: Nutrition and Wellness; Interpersonal Relationships; Child Development; or Human Development and Wellness
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5462 Human and Social Services II

HUMN SRVS II

Human and Social Services II is a core component of the Family and Human Services pathway. The course prepares students for occupations and higher education programs related to assisting individuals and families in meeting their potential. Through work based experiences, students apply the knowledge and skills developed in the Human Services Foundations course. Concentration areas include family and social services, youth development, and adult and elder care. Ethical, legal, and safety issues, as well as helping processes and collaborative ways of working with others, will be addressed. Learning experiences will involve analysis of the influence of culture and socioeconomic factors on individual choices and opportunities, service delivery models, and theoretical perspectives. Intensive laboratory/field experiences in one or more human social service agencies are a required component of this course. Student laboratory/field experiences may be either school-based, if available, or “on the job” in community-based agencies, or a combination of the two. A standards-based plan guides the students’ laboratory/field experiences. Students are monitored in their laboratory/field experiences by the Human and Social Services II teacher. Achievement of applicable standards will be documented through a student portfolio. Articulation with post-secondary programs is encouraged.

- Recommended Grade(s): 12
- Required Prerequisites: Human and Social Services I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5802 Cosmetology I

CSMTLGY I

Cosmetology I offers an introduction to cosmetology with an emphasis on basic practical skills and theories including roller control, quick styling, shampooing, hair coloring, permanent waving, facials, manicuring, business and personal ethics, bacteriology, and sanitation. In the second semester greater emphasis is placed on the application and development of these skills. The State of Indiana requires a total of 1500 hours of instruction for licensure.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Interpersonal Relationships

- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as directed elective or elective for all diplomas

5806 Cosmetology II

CSMTLGY II

Cosmetology II builds on concepts learned in Cosmetology I with an emphasis on the development of advanced skills in styling, hair coloring, permanent waving, facials and manicuring. Students will also study anatomy and physiology, professionalism, and salon management in relation to cosmetology.

- Recommended Grade(s): 12
- Required Prerequisites: Cosmetology I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

Information Technology

4588 Networking II: Infrastructure

NET II INFRA

The OSI and TCP/IP functions and services are examined in detail. Students will learn how a router addresses remote networks and determines the best path to those networks, employing static and dynamic routing techniques.

- Recommended Grade(s): 12
- Required Prerequisites: Networking I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5230 Information Technology Support I

IN TECH SUPP

Information Technology Support allows students to explore how computers work. Students learn the functionality of hardware and software components as well as suggested best practices in maintenance and safety issues. Through hands-on activities and labs, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems.

- Recommended Grade(s): 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Digital Applications and Responsibility; and/or Introduction to Computer Science

- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5231 Information Technology Support II

INTO ENTR

Information Technology Support II, Capstone is designed for students to showcase the knowledge gained from the Information Technology Pathway. Through troubleshooting hardware, software, and networks, students solve problems through a variety of real-world IT problems. Throughout the course, students communicate with other team members and document progress to fix a variety of devices

- Recommended Grade(s): 11, 12
- Required Prerequisites: Information Technology Support
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5234 Networking I

NET I

Networking I introduces students to local and wide area networks, home networking, networking standards using the IEEE/OSI Model, network protocols, transmission media and network architecture/ topologies. Security and data integrity are introduced and emphasized throughout this course, which offers students the critical information needed to successfully move into a role as an IT professional supporting networked computers. Concepts covered will include TCP/IP client administration, planning a network topology, configuring the TCP/IP protocol, managing network clients, configuring routers and hubs, as well as creating a wireless LAN.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Information Technology Support I
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5245 Networking II: Cybersecurity Capstone

NETII

Networking II: Cybersecurity is a capstone experience of the Network Support Pathway. It builds upon a base knowledge of Information Technology as gained through lower level courses such as IT support and Networking I. This particular capstone course concentrates on the Security field within networking, also called the cybersecurity field. Laboratory and classroom components are used to cover key elements such as Information Security, Systems Security,

Network Security, Mobile Security and, Defense and Mitigation Techniques. The core concepts of confidentiality, integrity, and availability are covered.

- Recommended Grade(s): 12
- Required Prerequisites: Networking I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5257 Networking II: Servers

NET II SERV

Networking II: Servers focuses on the software skills needed to manage a network. Students will learn and practice the skills necessary to perform in the role of a network administrator. They will be able to accomplish fundamental network management tasks on a server such as set up of computer network services, create users and appropriate login scripts, develop groups, set the server remotely, set up security, backup/restore the server and setup/maintain clients.

- Recommended Grade(s): 12
- Required Prerequisites: Networking I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

Public Safety

5210 Emergency Medical Services

EMS

Emergency Medical Services prepares students for a state certification which may lead to a career in Emergency Medical Services. Examples of those careers include Emergency Medical Technician and Paramedic. This course is designed for persons desiring to perform emergency medical care. Theories, techniques, and operational aspects of pre-hospital emergency care, within the scope and responsibility of the basic emergency medical technician are covered in this course. Students will learn to recognize the seriousness of the patient's condition, use the appropriate emergency care techniques and equipment to stabilize the patient, and safely transport them to the hospital. The handling of victims of hazardous materials accidents is also addressed in this course. Opportunities for laboratory practice and clinical observation in a hospital emergency room and ambulance are also included to provide occasions for students to further develop clinical skills and the appropriate ethical behavior. Leadership skills are developed and community service opportunities are provided through participation in HOSA. Students have the opportunity to compete in a number of competitive events at both the state and national level.

- Recommended Grade(s): 12
- Required Prerequisites: none
- Recommended Prerequisites: Health Science Education I

- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5820 Fire and Rescue I

FIRE RSCU I

Fire and Rescue I; Every year, fires and other emergencies take thousands of lives and destroy property worth billions of dollars. Firefighters and emergency services workers help protect the public against these dangers by rapidly responding to a variety of emergencies. They are frequently the first emergency personnel at the scene of a traffic accident or medical emergency and may be called upon to put out a fire, treat injuries or perform other vital functions. The Fire and Rescue curriculum may include five Indiana state fire certifications: (1) Mandatory, (2) Firefighter I, (3) Firefighter II, (4) Hazardous Materials Awareness, and (5) Hazardous Materials Operations. An additional two industry certifications may be earned by adding (6) First Responder, and (7) Emergency Medical Technician-Basic to the curriculum.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5822 Criminal Justice I

CRIME I

Criminal Justice I Introduces specialized classroom and practical experiences related to public safety occupations such as law enforcement, loss prevention services, and homeland security. This course provides an introduction to the purposes, functions, and history of the three primary parts of the criminal justice system as well as an introduction to the investigative process. Oral and written communication skills should be reinforced through activities that model public relations and crime prevention efforts as well as the preparation of police reports. This course provides the opportunity for dual credit for students who meet post-secondary requirements for earning dual credit and successfully complete the dual credit requirements of this course.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Interpersonal Relationships
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5824 Criminal Justice II

CRIME II

Criminal Justice II introduces students to concepts and practices in traffic control as well as forensic investigation at crime scenes. Students will have opportunities to use mathematical skills in crash reconstruction and analysis activities requiring measurements and performance of speed/acceleration calculations. Additional activities simulating criminal investigations will be used to teach scientific knowledge related to anatomy, biology, and chemistry as well as collection of evidence, developing and questioning suspects, and protecting the integrity of physical evidence found at the scene and while in transit to a forensic science laboratory.

Procedures for the use and control of informants, inquiries keyed to basic leads, and other information-gathering activities and chain of custody procedures will also be reviewed. Current trends in criminal justice and law enforcement will also be covered.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Criminal Justice I
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5826 Fire and Rescue II

FIRE RSCU II

Fire and Rescue II builds on skills learned in Fire and Rescue I. The Fire and Rescue curriculum may include five Indiana state fire certifications: (1) Mandatory, (2) Firefighter I, (3) Firefighter II, (4) Hazardous Materials Awareness, and (5) Hazardous Materials Operations. An additional two industry certifications may be earned by adding (6) First Responder, and (7) Emergency Medical Technician-Basic to the curriculum.

- Recommended Grade(s): 12
- Required Prerequisites: Fire and Rescue I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

STEM

4801 Computer Science I

COM SCI I

Computer Science I introduces the structured techniques necessary for the efficient solution of business-related computer programming logic problems and coding solutions into a high-level language. The fundamental concepts of programming are provided through explanations and effects of commands and hands-on utilization of lab equipment to produce accurate outputs. Topics include program flow-charting, pseudo coding, and hierarchy charts as a means of solving problems. The course covers creating file layouts, print charts, program narratives, user documentation, and system flowcharts for business problems; algorithm development and review, flowcharting, input/output techniques, looping, modules, selection structures, file

handling, control breaks, and offers students an opportunity to apply skills in a laboratory environment.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Computer Science
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Fulfills a science course requirement for all diplomas
- Qualifies as a quantitative reasoning course
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

4836 Mechanical Drafting and Design I

MECH DD I

Mechanical Drafting and Design I provides students with a basic understanding of the detailing skills commonly used by drafting technicians. Areas of study include: lettering, sketching, proper use of equipment, geometric constructions with emphasis on orthographic (multi-view) drawings that are dimensioned and noted to ANSI standards. This course also provides a basic understanding of the features and considerations associated with the operation of a computer-aided design (CAD) system. Students will gain hands-on experience with Auto CAD. They will be expected to complete several projects relating to command topics. Topics include: 2D drawing commands, coordinate systems, editing commands, paper and model space, inquiry commands, layers, plotting, text, and basic dimensioning.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Computers in Design and Production
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

4838 Mechanical Drafting and Design II

MECH DD II

Mechanical Drafting and Design II covers working drawings both in detailing and assembly. Topics include: fastening devices, thread symbols and nomenclature, surface texture symbols, classes of fits, and the use of parts lists, title blocks and revision blocks. This course will also focus on advanced CAD features, including fundamentals of three-dimensional modeling for design. An overview of modeling, graphical manipulation, part structuring, coordinate system, and developing strategies of modeling will also be included. Advanced CAD will enable the student to make the transition from 2D drafting to 3D modeling. Students will draw and calculate three-dimensional problems. Theory and methods include graphic developments and the relationships between points, lines and planes, curved lines and surfaces, intersections, and

development. Computer software and hardware experiences, as they relate to drafting and design, will be covered.

- Recommended Grade(s): 12
- Required Prerequisites: Mechanical Drafting and Design I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Qualifies as a quantitative reasoning course

5236 Computer Science II

CS II PROG

Computer Science II explores and builds skills in programming and a basic understanding of the fundamentals of procedural program development using structured, modular concepts. 67 Indiana Department of Education High School Course Titles and Descriptions Coursework emphasizes logical program design involving user-defined functions and standard structure elements. Discussions will include the role of data types, variables, structures, addressable memory locations, arrays and pointers, and data file access methods. An emphasis on logical program design using a modular approach, which involves task-oriented program functions.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Computer Science I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Fulfills a science course requirement for all diplomas
- Qualifies as a quantitative reasoning course
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5249 Computer Science III: Software Development Capstone

CS III SD

Computer Science III: Software Development focuses on gaining knowledge and acquiring competencies in the processes, techniques and tools used to develop production quality software. The course framework aligns with professional standards and situates software development within the context of a software project, providing focus on requirements development and management, project scheduling, project success metrics, code design, development and review principles, testing procedures, release and revision processes, and project archival. An additional topic provides exposure to career opportunities within the software development field. The final product of this capstone experience is a working software product that adheres to industry standards.

- Recommended Grade(s): 12
- Required Prerequisites: Computer Science I
- Recommended Prerequisites: Computer Science II

- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Fulfills a science course requirement for all diplomas
- Qualifies as a quantitative reasoning course
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5250 Computer Science III: Databases

CS III DATA

Computer Science III: Databases introduces students to the basic concepts of databases including types of databases, general database environments, and the importance of data to the business world. Discussion with hands-on activities will include database design, normalization of tables, and development of tables, queries, reports, and applications. Students will be familiarized with the use of ANSI Standard Structured Query Language. Discussions will include database administration and data maintenance. Students will be introduced to data concepts such as data warehousing, data mining, and BIG Data. Students will develop a business application using database software such as Microsoft Access. Students will be required to demonstrate skills such as team building, work ethic, communications, documentation, and adaptability.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Computer Science I
- Recommended Prerequisites: Computer Science II
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Fulfills a science course requirement for all diplomas
- Qualifies as a quantitative reasoning course
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5251 Computer Science III: Informatics

CS III INFO

Computer Science III: Informatics introduces the student to terminology, concepts, theory, and fundamental skills used to implement information systems and functions in a wide variety of applications from small businesses to large enterprise organizations. Topics include the history of and trends in computing, operating systems, security, cloud implementations and other concepts associated with applying the principles of good information management to the organization.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Computer Science I
- Recommended Prerequisites: Computer Science II
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum

- Counts as a directed elective or elective for all diplomas
- Fulfills a science course requirement for all diplomas
- Qualifies as a quantitative reasoning course
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5253 Computer Science III: Cybersecurity Capstone

CS III CYBER

Computer Science III: Cybersecurity introduces the secure software development process including designing secure applications, writing secure code designed to withstand various 69 Indiana Department of Education High School Course Titles and Descriptions types of attacks, and security testing and auditing. It focuses on the security issues a developer faces, common security vulnerabilities and flaws, and security threats. The course explains security principles, strategies, coding techniques, and tools that can help make software fault tolerant and resistant to attacks. Students will write and analyze code that demonstrates specific security development techniques. Students will also learn about cryptography as an indispensable resource for implementing security in real-world applications. Students will learn foundations of cryptography using simple mathematical probability. Information theory, computational complexity, number theory, and algebraic approaches will be covered. NOTE: This course aligns with the PLTW Cybersecurity curriculum. Use of the PLTW curriculum may require additional training and membership in the PLTW network.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Computer Science I
- Recommended Prerequisites: Computer Science II
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Fulfills a science course requirement for all diplomas
- Qualifies as a quantitative reasoning course
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5616 Energy Industry I

ENG IND I

Energy Industry I introduces students to basic concepts in energy delivery as well as maintaining energy related facilities and equipment. This course includes basic electric theory focused on safety and professional standards. Students will also explore the relationship between Alternative and Green Energy as it relates to the delivery of gas and electricity. This course includes field trips, on-site training, mentors, and project–based learning activities in the Energy Industry.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Construction

- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5618 Energy Industry II

ENG IND II

Energy Industry II builds on skills learned in Energy Industry I. This curriculum includes electrical installation and generation and will touch on natural gas services. Students will have the opportunity to experience career internships, participate with field mentors, carry out a culminating senior project and participate in field trips related to their area of interest. Industry partners would include Energy companies, Electricians Unions, the steel industry, and manufacturing companies.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Energy Industry I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5640 Architectural Drafting and Design I

ARCH DDI

Architectural Drafting and Design I gives students a basic understanding of the detailing skills commonly used by drafting technicians. Areas of study include: lettering, sketching, and the proper use of equipment. This course includes the creation and interpretation of commonly used construction documents. Methods of geometric construction, three-dimensional drawing techniques, and sketching will be taught as well as elementary aspects of residential design and site work. Areas of emphasis will include print reading and drawing. This course also provides students with a basic understanding of the features and considerations associated with the operation of a computer-aided design (CAD) system. Students will gain valuable hands-on experience with Auto CAD. They will be expected to complete several projects relating to command topics.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Computers in Design and Production
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5652 Architectural Drafting and Design II

ARCH DDII

Architectural Drafting and Design II builds on the concepts of Architectural Drafting and Design I and presents a history and survey of architecture with a focus on the creative design of buildings in a studio environment. This course covers site analysis, facilities programming, space planning, conceptual design, and the proper use of materials. Students will develop

presentation drawings, give oral presentations, and critique works. Generation of form and space is addressed through basic architectural theory, related architectural styles, design strategies, and a visual representation of the student's design process. This course will focus on advanced Computer Aided Design (CAD) techniques. It includes an overview of modeling, graphical manipulation, parts-structuring, and modeling strategies. Advanced CAD will enable students to make the transition from 2D drafting to 3D modeling. Various Architectural software packages and applications may be used.

- Recommended Grade(s): 12
- Required Prerequisites: Architectural Drafting and Design I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- Qualifies as a quantitative reasoning course

5684 Electronics and Computer Technology I

ELECT TECH I

Electronics and Computer Technology I introduces students to the fundamental electronic concepts necessary for entry into an electronic and computer systems career. Classroom and laboratory experiences will allow students to begin their career preparation in the fundamental electronics concepts of Jobsite Skills, DC Basics, AC Basics, and Personal Computer Design, and will incorporate safety, technical writing, mathematical concepts, and customer service.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Digital Electronics
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5694 Electronics and Computer Technology II

ELECT TECH II

Electronics and Computer Technology II provides the opportunity for students to continue with foundational electronic concepts including circuit analysis and digital electronics modules. This course focuses on applying electronic concepts to real-world solutions in the fields of: industrial technology, emerging electronic technologies, residential and commercial electronic communication, and automation. Industry certifications and additional post-secondary education are critical components of this pathway. Classroom, laboratory, and work based experiences in the fundamental electronics concepts of circuit analysis and digital electronics as well as one of the optional modules will incorporate safety, technical writing, mathematics, and customer service.

- Recommended Grade(s): 12
- Required Prerequisites: Electronics and Computer Technology I
- Recommended Prerequisites: none

- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Qualifies as a quantitative reasoning course

TRANSPORTATION

5510 Automotive Services Technology I

AUTO TECH I

Automotive Services Technology I is a one year course that encompasses the sub topics of the NATEF/ ASE identified areas of Steering & Suspension and Braking Systems. This one year course offering may be structured in a series of two topics per year offered in any combination of instructional strategies of semester based or yearlong instruction. Additional areas of manual transmissions and differentials, automatic transmissions, air conditioning, and engine repair should be covered as time permits. This one year offering must meet the NATEF program certifications for the two primary areas offered in this course. This course provides the opportunity for dual credit for students who meet post-secondary requirements for earning dual credit and successfully complete the dual credit requirements of this course. Mathematical skills will be reinforced through precision measuring activities as well as cost estimation and calculation activities. Scientific principles taught and reinforced in this course include the study of viscosity, friction, thermal expansion, and compound solutions. Written and oral skills will also be emphasized to help students communicate with customers, colleagues, and supervisors.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Transportation
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5514 Automotive Collision Repair I

ACR TECH I

Automotive Collision Repair Technology I includes classroom and laboratory experiences in all phases of the body repair process. Students will examine the characteristics of body metals including the installation of moldings, ornaments, and fasteners with an emphasis on sheet metal analysis and safety. Course coverage also includes instruction in personal and environmental safety practices as related to OSHA and other regulatory agencies. Additional instruction is given in the course on measurement principles and automotive fasteners. Instruction should also emphasize computerized frame diagnosis, color-mixing, and estimation of repair costs.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Transportation

- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5520 Aviation Maintenance I

AV MAINT

Aviation Maintenance I is a comprehensive course that familiarizes the student with Federal Aviation Regulations, weight and balance, ground operation, maintenance forms and records, non-destructive \testing methods, aircraft paint and refinishing systems and the basics of aircraft welding. The course also covers various onboard systems including cabin atmospheric control systems, pressurization and fire detection/extinguishing systems. This course familiarizes students with the inspection, damage evaluation and repair of composite and wood structures, windows and fabric covering systems used on aircraft.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Aerospace Engineering
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5522 Aviation Maintenance II

AV MAINT

Aviation Maintenance II builds on concepts learned in Aviation Maintenance I. The course provides a deeper focus on testing methods, aircraft systems and engine maintenance and repair procedures. The course also covers inspection and damage evaluation and compliance with applicable FAA regulations.

- Recommended Grade(s): 12
- Required Prerequisites: Aviation Maintenance I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Qualifies as a quantitative reasoning course

5524 Aviation Flight

AV FLIGHT

Aviation Flight familiarizes students with aviation technology and provides a historic overview of the field. This course also provides an overview of the careers and employment opportunities in the field of aviation. It prepares new student pilots for the maneuvers that are required to be performed during the Practical Test portion of the Private Check Ride. In addition to these maneuvers, the concepts of basic aerodynamics, aircraft systems, instrument operation, weight

and balance, flight physiology and a basic working knowledge of aircraft power plants and their construction will be covered.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Aerospace Engineering
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5528 Aviation Operations

AV OPS

Aviation Operations provides students with a broad-based introduction to the field of aviation. Course activities include: familiarization with aviation technology; a historic overview of the field of aviation; exploration of the current aviation environment and careers and employment opportunities in the field. Topics are focused on aircraft manufacturing, airline operations, general aviation, air-freight, airport management, and government service. Additional topics covered include: aviation safety, human factors, regulations, and certification. This course is designed to enhance the students' knowledge of the pertinent areas of aircraft basic science that comprise the scientific fundamentals applied in all areas of the aviation industry. The fundamental areas of the federal aviation regulations, pertinent to aviation operations, are also introduced in this course.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Aerospace Engineering
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5544 Automotive Collision Repair II

ACR TECH II

Automotive Collision Repair Technology II introduces concepts in automotive painting with an emphasis on the handling of materials and equipment in modern automotive technologies. Instruction should build on concepts learned in Automotive Collision Repair Technology I. Additional academic skills taught in this course include precision measurement and mathematical calibrations as well as scientific principles related to adhesive compounds, color-mixing, abrasive materials, metallurgy, and composite materials.

- Recommended Grade(s): 12
- Required Prerequisites: Automotive Collision Repair Technology I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5546 Automotive Services Technology II

AUTO TECH II

Automotive Services Technology II is a one year course that encompasses the sub topics of the NATEF/ASE identified areas of Electrical Systems and Engine Performance. This one year course offering may be structured in a series of two topics per year offered in any combination of instructional strategies of semester based or yearlong instruction. Additional areas of manual transmissions /differentials, automatic transmissions, air conditioning, and engine repair should be covered as time permits. This one-year offering must meet the NATEF program certifications for the two primary areas offered in this course. Mathematical skills will be reinforced through precision measuring activities and cost estimation/calculation activities.

Scientific principles taught and reinforced in this course include the study of viscosity, friction, thermal expansion, and compound solutions. Written and oral skills will also be emphasized to help students communicate with customers, colleagues, and supervisors.

- Recommended Grade(s): 12
- Required Prerequisites: Automotive Services Technology I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5620 Diesel Service Technology I

DIESL TECH I

Diesel Services Technology I introduces students to engine operation principles and theories as well as diesel fuel systems and hands-on training related to modern diesel engines. The course covers inspection, troubleshooting, overhaul and engine replacement procedures. It includes classroom and laboratory experiences focused on diesel engine repair. Students will demonstrate performance of these tasks as defined by ASE/NATEF standards. Use of technical manuals, hand and power tools and of testing and diagnostic equipment are also studied in the course.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Intro to Transportation
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

5624 Diesel Service Technology II

DIESL TECH II

Diesel Service Technology II includes classroom and laboratory experiences covering all phases of repair work on diesel electrical systems. Instruction and practice is provided in the diagnostics and repair of electrical/electronic systems. Students will demonstrate performance of tasks as measured by ASE/NATEF standards. Use of technical manuals, hand and power tools and of

testing and diagnostic equipment are covered. Instruction in personal and environmental safety practices as related to OSHA and other agencies that affect individuals working in the ground transportation technology areas is also covered. Utilization of analog and digital meters, wiring diagrams, and other diagnostic tools will be stressed in a hands-on environment.

- Recommended Grade(s): 12
- Required Prerequisites: Diesel Service Technology I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Qualifies as a quantitative reasoning course

5842 Recreational and Mobile Equipment I

RME I

Recreational and Mobile Equipment I introduces students to fundamental concepts in the internal workings and operations of engines. Training will cover hydraulics, cooling and electrical systems, and other engine components. Students will explore the interrelatedness of these systems by examining and identifying the commonalities and differences between the various engines that power recreational and mobile equipment. Additional emphasis should be placed on content specific reading of repair and maintenance manuals.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Transportation
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

5844 Recreational and Mobile Equipment II

RME II

Recreational and Mobile Equipment II builds on the basic engine concepts of Recreational and Mobile Equipment I. Advanced training should cover care and service of recreational vehicles including motorcycles, mini-bikes, snowmobiles, all-terrain vehicles (ATVs), and outboard motors. Daily emphasis is placed on reading technical manuals and using oral communications skills in a customer service setting.

- Recommended Grade(s): 12
- Required Prerequisites: Recreational and Mobile Equipment I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7208 Aviation Sheet Metal I

AVI SHT MET I

This course is designed to develop skills in the inspection and repair of aircraft sheet metal structures. Students will layout, fabricate, and install sheet metal repairs that conform to F.A.A. return to service standards. The student will select various sheet metal fasteners and use the proper installation tools to accomplish repairs. This course also addresses the aerodynamic stresses applied to sheet metal structures and the assessment of damage in determining airframe reparability.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

7209 Aviation Sheet Metal II

AVI SHT MET II

This course expands on the knowledge learned in Aviation Sheet Metal I. The student will gain further knowledge and skills in various techniques of fabricating and repairing aircraft sheet metal structures, structural load analysis and assessment of damage, characteristics of aluminum alloys, standard and special fastener installation, and layout and forming techniques are emphasized.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Aviation Sheet Metal I
- Recommended Prerequisites: none
- Credits: Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Recommended Grade(s):
- Required Prerequisites:
- Recommended Prerequisites:
- Credits:

Appendix A: 2023-2024 Course Changes

The courses listed in this chart include changes to the academic course offerings in Indiana, including new courses, deactivated courses, and course titles with updates for 2023-2024.

Please contact the Office of Teaching and Learning with questions regarding these updates.

New Course Titles	Course Code	Update/Description
Cambridge Advanced History A Level (International)	8145	New course added.
Cambridge Advanced History AS Level (international)	8147	New course added.
Cambridge Advanced History A Level (European)	8149	New course added.
Cambridge Advanced History AS Level (European)	8151	New course added.
Cambridge Advanced Mathematics A Level (Pure Mechanics and Probability & Statistics)	8157	New course added.
Cambridge Advanced Mathematics AS Level (Pure and Mechanics)	8169	New course added.
Cambridge Advanced Mathematics AS Level (Pure and Probability and Statistics)	8159	New course added.
Cambridge Advanced Further Mathematics A Level (Further Pure 2 and Further Mechanics)	8161	New course added.
Cambridge Advanced Further Mathematics AS Level (Further Pure 1 and Further Mechanics)	8163	New course added.
Cambridge Advanced Further Mathematics A Level (Further Pure 2 and Further Probability and Statistics)	8165	New course added.
Cambridge Advanced Further Mathematics AS Level (Further Pure 1 and Further Probability	8167	New course added.

and Statistics)		
AP PreCalc	2563	New course added.
Word-Based Learning Level 1	0543	New course added.
Work-Based Learning Level 2	0544	New course added.
Work-Based Learning Level 3	0545	New course added.
Work-Based Learning Level 4	0546	New course added.
Service-Based Learning	0539	New course added.
Project-Based Learning	0547	New course added.
Principles of Public Water Systems	7381	New CTE course.
Water Systems Fundamentals	7382	New CTE course.
Advanced Water Systems	7383	New CTE course.
Water Systems Capstone	7384	New CTE course.
Principles of Transportation and Logistics	7386	New CTE course.
Commercial Drivers Operations Fundamentals	7387	New CTE course.
Advanced Commercial Drivers Operations	7388	New CTE course.
Advanced Architectural Drafting	7389	New CTE course.
Masonry Fundamentals	7390	New CTE course.
Masonry Capstone	7391	New CTE course.
Career and Technical Education Principles Course	7392	New CTE course.
Career and Technical Education Concentrator A Course	7393	New CTE course.
Career and Technical Education Concentrator B Course	7394	New CTE course.
Career and Technical Education Capstone Course	7395	New CTE course.
Advanced Digital Skills Capstone	7396	New CTE course.

Deactivated Course Titles	Course Code	Update/Description
Math 10	2531	Course has been deactivated.
Change in course description	**Course Code**	**Update/Description**
College-Entrance Preparation	0532	Course description was changed to focus on SAT test prep.