

INDIANA DEPARTMENT of EDUCATION

# High School Course Titles & Descriptions

# 2025-2026

### Indiana Department of Education

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in.gov/doe

### Introduction

The Indiana Department of Education's (IDOE's) Office of Teaching and Learning developed the 2025-2026 High School Course Titles and Descriptions to identify course names and brief descriptions for schools and corporations as they plan the 2025-2026 academic year for high school students. These course descriptions are intended to assist schools with communicating the content and any 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 to IDOE, as well as on student transcripts.

Instructional decisions related to curriculum selection and development, implementation, and assessment are left to local school corporations. 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. View resources listed under "Nonstandard Course Waiver" on IDOE's <u>Course Titles and Descriptions webpage</u>. Information regarding teacher licensing for each course may be found <u>here</u>.

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 SBOE.

#### New High School Course Titles and Descriptions Companion Document

IDOE developed a companion summary document for the 2025-2026 school year to reflect the information that appeared in bulleted format in previous iterations of the Course Titles and Descriptions (e.g., course codes and titles, course durations, available credits, recommended and required course prerequisites, dual credit designations) and illustrate which course(s) support a variety of Graduation Pathways. All diploma requirements will be reflected until the current requirements (i.e., Core 40, Academic Honors Diploma and Technical Honors Diploma) sunset for the class of 2028.

#### High School Course Credit Earned Prior to Grade Nine

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

#### Indiana's Alternate Diploma

The Indiana Alternate Diploma is an available course of study (effective for student cohorts beginning with the 2018-2019 school year) for students with an Individualized Education Program

(IEP) who have been removed from a diploma path as determined by their case conference committees. The Indiana 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, see IDOE's <u>Graduation Pathways webpage</u>.

#### **Applied Courses**

The courses outlined in this document and denoted with an "(A)" (e.g., "1002 English 9 (A)") are eligible to serve as "applied" courses for students pursuing an alternate diploma. Educators are encouraged to establish connections between the designated course description and <u>Indiana's</u> <u>Content Connectors</u>, and provide opportunities for real-world application and content relevancy for hands-on learners in order to reach learning targets at each grade level. Applied courses enable students with a broad spectrum of ability levels to access a variety of course content. The method of instruction, accommodations, and any modifications will vary based on the needs of the student (e.g., students with IEPs).

#### Laboratory Courses

A laboratory course, identified by (L) in the course title, 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 student personally uses appropriate procedures and equipment in accomplishing that learning task.

#### **Honors Courses**

Schools may designate a course as "Honors" when the course content is significantly more rigorous than the state-approved course. Honors-level courses must be based on any 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.

Appendix A contains a list of course-related revisions, additions, and deactivations. Please contact IDOE's <u>Office of Teaching and Learning</u> with any questions.

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### Advanced Courses: Non-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 these courses 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 (e.g., 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.

Dual credit courses provide opportunities for qualified students to earn college credit from 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.

### 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.

### 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.

### 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.

### 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.

### 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, theatre 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.

### **Advanced Placement (AP) Courses**

#### 0551 AP Research (RSCH, AP)

AP Research, the second course in the AP Capstone experience, allows students to deeply explore an academic topic, problem, issue, or idea of individual interest. Students design, plan, and implement a yearlong investigation to address a research question. Through this inquiry, they further the skills they acquired in the AP Seminar course by learning research methodology, employing ethical research practices, and accessing, analyzing, and synthesizing information. Students reflect on their skill development, document their processes, and curate the artifacts of their scholarly work through a process and reflection portfolio. The course culminates in an academic paper of 4,000–5,000 words and a presentation with an oral defense.

#### 0552 AP Seminar (SEM, AP)

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. Through an inquiry-based approach, 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 written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Assessment in the course includes two through-course

performance tasks and an end-of-course exam, with the final AP score being calculated on a 1-5 scale. A student may take this course for elective credit OR course 1104 for English credit, but they may not take both. The same AP exam is used with this course and course 1104.

### 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.

### 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.

### 1104 AP Seminar: English (SEM ENG AP)

AP Seminar: English is designed as a seminar-style English course focusing on foundational writing, collaboration, research, and presentation skills. Through an inquiry-based approach, 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. The course integrates with local English standards, allowing for flexibility in instruction. Students learn to synthesize information from multiple sources, express their own perspectives through written essays, and deliver oral and visual presentations individually or as part of a team. Assessment in the course includes two through-course performance tasks and an end-of-course exam, with the final AP score being calculated on a 1-5 scale. A student may take this course for English credit or course 0552 for elective credit, but they may not take both. The same AP exam is used with this course and course 0552.

### 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.

#### 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.

#### 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 behavior and mental processes. The AP Psychology course is equivalent to an introductory college-level psychology course. While considering the studies that have shaped the field, students explore and apply psychological theories, key concepts, and phenomena associated with major units of study, including biological bases of behavior, cognition, development, learning, social psychology, personality, and mental and physical health. Throughout the course, students apply psychological concepts and employ psychological research methods and data interpretation to evaluate claims, consider evidence, and effectively communicate ideas.

# 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

### 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).

### 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).

### 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).

### 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.

#### 2092 AP 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 use 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.

### 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 culturel 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).

### 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 and Culture. 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).

### 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).

### 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.

# 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.

# 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.

#### 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 parametric, vector-valued, and polar functions, 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.

### 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.

#### 3020 AP Biology (L) (BIO 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.

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

### 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.

### 3081 AP 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 thermodynamics; electricity and magnetism; optics and waves; and modern physics.

# 3087 AP Physics C: Electricity and Magnetism (L) (PHYS: C EM AP)

AP Physics C: Electricity and Magnetism 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 C: Electricity and Magnetism is equivalent to a second-semester college course in calculus-based physics. AP Physics C: Electricity and Magnetism provides instruction in each of the following six content areas: electric charges and fields; electric potential; conductors and capacitors; electric circuits; magnetic fields and electromagnetism; and electromagnetic induction.

#### 3089 AP Physics C: Mechanics (L) (PHYS C: M AP)

AP Physics C: Mechanics 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 C: Mechanics is equivalent to a first-semester college course in calculus-based physics. AP Physics C: Mechanics provides instruction in each of the following seven content areas: kinematics; force and translational dynamics; work, energy, and power; systems of particles and linear momentum; torque and rotational dynamics; energy and momentum of rotating systems; and oscillations.

#### 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.

### 4048 AP 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.

### 4050 AP 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.

### 4052 AP 3-D Art and 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.

#### 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.

# 4568 AP 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.

### 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.

### 4590 AP CK Cyber: Networking (CK CYB NET AP)

Designed by College Board to parallel college-level networking courses, AP CK Cyber: Networking interweaves essential networking concepts with relevant, hands-on problem-solving activities to maximize students' understanding of network hardware and configuration, the use of protocols to enable reliable and accurate transmission of data between hosts, and relevant security practices that protect the transmission of data within and between computer networks. The course is designed to support student learning no matter their prior content knowledge or academic skills.

### 4590 AP CK Cyber: Security (CK CYB SEC AP)

Designed by the College Board to parallel college-level cybersecurity courses, AP CK Cyber: Security helps students build foundational cybersecurity skills in determining vulnerabilities and assessing the risk posed by potential threats exploiting vulnerabilities. Students then use their understanding of those vulnerabilities to determine, evaluate, and recommend a layered set of security mitigations. Finally, students determine and evaluate strategies for detecting malicious cyber activity on a device or network, and analyze digital records for indicators of compromise. Students practice these skills across a variety of domains of security including physical spaces, a computer network, individual devices, and data and applications. Students will research emerging cybersecurity trends and gain hands-on experience implementing security protocols. The course is designed to support student learning no matter their prior content knowledge or academic skills.

### **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 <u>Cambridge Pathway</u> 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. Review the <u>Cambridge website</u> for additional details.

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.

#### 2601 A Cambridge Advanced Drama (A Level) (CI A DRAMA)

Cambridge Advanced Drama (A Level) 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 Drama (A Level) Drama provides a foundation for the further study of drama or related courses in higher education.

#### 2602 A Cambridge Advanced Drama (AS Level) (CI AS DRAMA)

Cambridge Advanced Drama (AS Level) 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 Drama (AS Level) provides a foundation for the further study of drama or related courses in higher education.

#### 8100 Cambridge Advanced Accounting (A Level) (CI A ACCT)

The Cambridge Advanced Accounting (A Level) 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.

#### 8102 Cambridge Advanced Accounting (AS Level) (CI AS ACCT)

The Cambridge Advanced Accounting (AS Level) 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.

# 8104 Cambridge Advanced Biology (A Level) (L) (CI A BIO)

Cambridge Advanced Biology (A Level) 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 Advanced Biology (A Level) 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.

### 8106 Cambridge Advanced Biology (AS Level) (L) (CI AS BIO)

Cambridge Advanced Biology (AS Level) 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 Advanced Biology (AS Level) 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.

### 8108 Cambridge Advanced Business (A Level) (CI A BUS)

The Cambridge Advanced Business (A Level) 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.

#### 8110 Cambridge Advanced Business (AS Level) (CI AS BUS)

The Cambridge Advanced Business (AS Level) 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.

### 8112 Cambridge Advanced Chemistry (A Level) (L) (CI A CHEM)

Cambridge Advanced Chemistry (A Level) 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.

### 8114 Cambridge Advanced Chemistry (AS Level) (L) (CI AS CHEM)

Cambridge Advanced Chemistry (AS Level) 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.

### 8116 Cambridge Advanced Computer Science (A Level) (CI A COMSCI)

Cambridge Advanced Computer Science (A Level) 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 Advanced Computer Science (A Level) 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.

#### 8118 Cambridge Advanced Computer Science (AS Level) (CI AS COMSCI)

Cambridge Advanced Computer Science AS Level 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 Advanced Computer Science AS Level 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.

# 8120 Cambridge Advanced Design and Technology (A Level) (CI A DTECH)

Cambridge Advanced Design and Technology (A Level) 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.

### 8122 Cambridge Advanced Design and Technology (AS Level) (CI AS DTECH)

Cambridge Advanced Design and Technology (AS Level) 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.

### 8124 Cambridge International Economics (A Level) (CI A ECON)

Through Cambridge Advanced Economics (A Level), 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.

#### 8126 Cambridge International Economics (AS Level) (CI AS ECON)

Through Cambridge Advanced Economics (AS Level), 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.

#### 8128 Cambridge Advanced English – Language (A Level) (CI A ENG LAN)

Cambridge Advanced English - Language (A Level) 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.

#### 8130 Cambridge Advanced English – Language (AS Level) (CI AS ENG LAN)

Cambridge Advanced English - Language (AS Level) 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.

#### 8132 Cambridge Advanced English – Literature (A Level) (CI A ENG LIT)

Cambridge Advanced English - Literature (A Level) gives learners the opportunity to 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.

#### 8134 Cambridge Advanced English – Literature (AS Level) (CI AS ENG LIT)

Cambridge Advanced English - Literature (AS Level) gives learners the opportunity to 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.

#### 8135 Cambridge Advanced English Paper (AS Level) (CI AS ENG GEN PAPER)

Cambridge Advanced English Paper (AS Level) 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. Cambridge Advanced English Paper (AS Level) enables learners to develop these skills which are of great use for further study and employment.

#### 8136 Cambridge Advanced Geography (A Level) (CI A GEO)

Cambridge Advanced Geography (A Level) 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.

### 8138 Cambridge Advanced Advanced Geography (AS Level) (CI 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.

### 8140 Cambridge Advanced Global Perspective and Research (A Level) (CI A GLOBAL)

Cambridge Advanced Global Perspectives and Research (A Level) 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 Advanced Global Perspectives and Research (A Level) 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 Advanced Global Perspectives and Research (A Level) 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.

### 8142 Cambridge Advanced Global Perspective and Research (AS Level) (CI AS GLOBAL)

Cambridge Advanced Global Perspectives and Research (AS Level) 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 Advanced Global Perspectives and Research (AS Level) 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 Advanced Global Perspectives and Research (AS Level) 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.

### 8144 Cambridge Advanced History (American) (A Level) (CI A AM HIS)

Cambridge Advanced History (American) (A Level) 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. A Level learners can select from topics on European, American or International history.

#### 8146 Cambridge Advanced History (American) (AS Level) (CI AS AM HIS)

Cambridge Advanced History (American) (AS Level) 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.

### 8145 Cambridge Advanced History (International) (A Level) (CI A Int'l HIS)

Cambridge Advanced History (International) (A Level) 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. A Level learners can select from topics on International history.

### 8147 Cambridge Advanced History (International) (AS Level) (CI AS Int'l HIS)

Cambridge Advanced History (International) (AS Level) 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. AS Level learners can select from topics on International history.

### 8148 Cambridge Advanced Information Technology (A Level) (CI A INFOTECH)

Cambridge Advanced Information Technology (A Level) 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.

#### 8150 Cambridge Advanced Information Technology (AS Level) (CI AS INFOTECH)

Cambridge Advanced Information Technology (AS Level) 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.

### 8149 Cambridge Advanced History (European) (A Level) (CI A EU HIS)

Cambridge Advanced History (European) (A Level) 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. A Level learners can select from topics on European history.

### 8151 Cambridge Advanced History (European) (AS Level) (CI AS EU HIS)

Cambridge Advanced History (European) (AS Level) 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. AS Level learners can select from topics on European history.

# 8152 Cambridge Advanced Marine Science (A Level) (L) (CI A MARINE SCI)

Cambridge Advanced Marine Science (A Level) provides a coherent and stimulating introduction to the science of the marine environment. The course 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.

### 8154 Cambridge Advanced Marine Science (AS Level) (L) (CI AS MARINE SCI)

Cambridge Advanced Marine Science (AS Level) provides a coherent and stimulating introduction to the science of the marine environment. The course concentrates on the scientific study of the sea and its ecosystems. 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.

#### 8156 Cambridge Advanced Mathematics (A Level) (CI A ProbStat MATH)

Cambridge Advanced Mathematics (A Level) 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 Advanced Mathematics (A Level) depending on the choice of applied mathematics (Mechanics and/or Probability and Statistics).

# 8157 Cambridge Advanced Mathematics (Pure, Mechanics and Probability & Statistics) (A Level)

#### (CI A PureMech&Stat MATH)

Cambridge Advanced Mathematics (Pure, Mechanics and Probability & Statistics) (A Level) 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 Advanced Mathematics (Pure, Mechanics and Probability & Statistics) (A Level) 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.

### 8158 Cambridge Advanced Mathematics (Pure) (AS Level) (CI AS Pure MATH)

Cambridge Advanced Mathematics (AS Level) 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.

# 8159 Cambridge Advanced Mathematics (Pure and Probability & Statistics) (AS Level) (CI 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.

#### 8160 Cambridge Advanced Media Studies (A Level) (CI A MEDIA)

Cambridge Advanced Media Studies (A Level) 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.

#### 8162 Cambridge Advanced Media Studies (AS Level) (CI AS MEDIA)

Cambridge Advanced Media Studies (AS Level) 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.

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

Cambridge Advanced Further Mathematics (A Level) 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.

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

# Cambridge Advanced Further Mathematics (AS Level) 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.

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

Cambridge Advanced Further Mathematics (A Level) 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.

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

Cambridge Advanced Further Mathematics (AS Level) 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 Advanced Mathematics (A Level) 9709 syllabus (Pure, Mechanics and Probability & Statistics) is assumed as a prerequisite.

### 8169 Cambridge Advanced Mathematics (Pure and Mechanics) (AS Level) (CI AS Pure&Mech MATH)

Cambridge Advanced Mathematics (AS Level) 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 Mathematics (AS Level): Pure Mathematics only, Pure Mathematics and Mechanics, or Pure Mathematics and Probability & Statistics. This course will focus on Pure Mathematics and Mechanics applications.

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

Cambridge Advanced Physics (A Level) 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.

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

Cambridge Advanced Physics (AS Level) 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.

#### 8164 Cambridge Advanced Music (A Level) (CI A MUSIC)

Cambridge Advanced Music (A Level) 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.

#### 8166 Cambridge Advanced Music (AS Level) (CI AS MUSIC)

Cambridge Advanced Music (AS Level) 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.

#### 8176 Cambridge Advanced Psychology (A Level) (CI A PSYCH)

Cambridge Advanced Psychology (A Level) 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.

#### 8178 Cambridge Advanced Psychology (AS Level) (CI AS PSYCH)

Cambridge Advanced Psychology (AS Level) 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.

#### 8180 Cambridge Advanced Sociology (A Level) (CI A SOCIO)

Cambridge Advanced Sociology (A Level) 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.

### 8182 Cambridge Advanced Sociology (AS Level) (CI AS SOCIO)

Cambridge Advanced Sociology (AS Level) 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.

### 8184 Cambridge Advanced Thinking Skills (A Level) (CI A TSKILLS)

Cambridge Advanced Thinking Skills (A Level) helps students develop 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.

### 8186 Cambridge Advanced Thinking Skills (AS Level) (CI AS TSKILLS)

Cambridge Advanced Thinking Skills (AS Level) helps students develop 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.

#### 8188 Cambridge Advanced Law (A Level) (CI A LAW)

The main aim of Cambridge Advanced Law (A Level) 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.

# 8190 Cambridge Advanced Law (AS Level) 9084 (CI AS LAW)

The main aim of Cambridge Advanced Law (AS Level) 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.

#### 8192 Cambridge Advanced Chinese - Language (A Level) (CI A CHINESE)

Cambridge Advanced Chinese (A Level) 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.

#### 8194 Cambridge Advanced Chinese – Language (AS Level) (CI AS CHINESE)

The Cambridge Advanced Chinese (AS Level) 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.

#### 8196 Cambridge Advanced Classical Studies (A Level) (CI A CLASSTUD)

Cambridge Advanced Classical Studies (A Level) 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.

### 8198 Cambridge Advanced Classical Studies (AS Level) (CI 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.

#### 8200 Cambridge Advanced French – Language (A Level) (CI A FRENCH)

Cambridge Advanced French (A Level) builds on the language skills gained at Cambridge IGCSE, Cambridge O Level or Cambridge International 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.

#### 8202 Cambridge Advanced French – Language (AS Level) (CI AS FRENCH LANGUAGE)

Cambridge Advanced French (AS Level) 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.

#### 8206 Cambridge Advanced German – Language (A Level) (CI A GERMAN)

Cambridge Advanced German (A Level) builds on the language skills gained at Cambridge IGCSE, Cambridge O Level or Cambridge International 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.

#### 8208 Cambridge Advanced German – Language (AS Level) (CI AS GERMAN)

Cambridge Advanced German (AS Level) 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.

#### 8210 Cambridge Advanced Japanese – Language (AS Level) (CI AS JAPANESE)

Cambridge Advanced Japanese (AS Level) 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.

#### 8212 Cambridge Advanced Portuguese – Language (A Level) (CI A PORTUGUESE)

Cambridge Advanced A Level Portuguese builds on the language skills gained at Cambridge IGCSE, Cambridge O Level or Cambridge International 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.

#### 8214 Cambridge Advanced Portuguese – Language (AS Level) (CI AS PORTUGUESE)

Cambridge Advanced Portuguese (AS Level) 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.

#### 8216 Cambridge Advanced Spanish – Language (AS Level) (CI AS SPAN LANG)

Cambridge Advanced Spanish (AS Level) 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.

### 8218 Cambridge Advanced Spanish – Literature (AS Level) (CI AS SPAN LIT)

Cambridge Advanced Spanish (AS Level) enables learners to 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.

### 8220 Cambridge Advanced Travel and Tourism (A Level) (CI A TRAVEL)

Cambridge Advanced Travel and Tourism (AS and A Level) 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.

# 8222 Cambridge Advanced Travel and Tourism (AS Level) (CI AS TRAVEL)

Cambridge Advanced Travel and Tourism (AS and A Level) 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.

### 8228 Cambridge Advanced Art and Design (A Level) (CI A 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.

### 8230 Cambridge Advanced Art and Design (AS Level) (CI 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.

#### 8232 Cambridge Advanced Environmental Management (AS Level) (CI AS ENV MGMT)

Cambridge Advanced Environmental Management (AS Level) addresses 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.

### 8234 Cambridge Advanced Digital Media and Design (A Level) (CI A DIGMD)

Cambridge Advanced Digital Media & Design (AS & A Level) 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. Schools 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 Advanced Digital Media & Design (AS & A Level) 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.

# 8236 Cambridge Advanced Digital Media and Design (AS Level) (CI AS DIGMD)

Cambridge Advanced Level Digital Media & Design (AS & A Level) 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. Schools 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 Advanced Digital Media & Design (AS & A Level) 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.

### **English/Language Arts Courses**

#### 1002 English 9 (A) (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 complexity for this grade level. 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 compositions, and sustained research assignments. Students deliver grade-appropriate oral presentations with attention to audience and purpose and access, analyze, and evaluate online information.

#### 1004 English 10 (A) (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 complexity for this grade level. 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 compositions, and sustained research assignments. Students deliver grade-appropriate oral presentations with attention to audience and purpose and access, analyze, and evaluate online information.

#### 1006 English 11 (A) (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 complexity for this grade level. 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, argumentative, informative), 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.

#### 1008 English 12 (A) (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 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, argumentative, informative), 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.

### 1010 Language Arts Lab (A) (LANG LAB)

Language Arts Lab is a supplemental course that provides students with individualized or small group instruction designed to support success in completing coursework 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 of the Indiana Academic Standards.

# 1012 English as a New Language (English/Language Arts) (A) (ENL)

English as a New Language (English/Language Arts), 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. This coursework addresses Indiana's Academic Standards for English/Language Arts (ELA) and is based on the general ELA curriculum and student's Individualized Learning Plan.

# 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.

#### 1020 American Literature (A) (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 should embed Indiana Academic Standards for English/Language Arts writing standards within the American Literature curriculum.

### 1022 Biblical Literature (A) (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. The course can be offered in conjunction with a composition course, or schools should embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

### 1024 Biographies (A) (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. 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 should embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

### 1026 Classical Literature (A) (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. The course can be offered in conjunction with a composition course, or schools should embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

### 1028 Dramatic Literature (A) (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 an influence on the culture. The course can be offered in conjunction with a composition course, or schools should embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

### 1030 English Literature (A) (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. 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.

#### 1032 Ethnic Literature (A) (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 relate or interconnect with national issues and history. The course can be offered in conjunction with a composition course, or schools should embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

### 1034 Film Literature (A) (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. The course can be offered in conjunction with a composition course, or schools should embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

# 1036 Genres of Literature (A) (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. The course can be offered in conjunction with a composition course, or schools should embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

### 1038 Indiana Literature (A) (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. 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.

### 1040 Literary Movements (A) (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. 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. **1042 Novels (A)** 

### (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. 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.

#### 1044 Poetry (A) (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. The course can be offered in conjunction with a composition course, or schools should embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

#### 1046 Short Stories (A) (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 being 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 (e.g., novels, epics, romances, biographies). The course can be offered in conjunction with a composition course, or schools should embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

#### 1048 Themes in Literature (A) (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. The course can be offered in conjunction with a composition course, or schools should embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

### 1050 Twentieth-Century Literature (A) (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. The course can be offered in conjunction with a composition course, or schools should embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

#### 1052 World Literature (A) (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. The course can be offered in conjunction with a composition course, or schools should embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

#### 1054 Contemporary Literature (A) (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. The course can be offered in conjunction with a composition course, or schools should embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

### 1060 Etymology (A) (ETYMOLOGY)

Etymology, a language studies course based on the Indiana Academic Standards for English/Language Arts, is the study and application of the derivation of English words and word families from their roots in ancient and modern languages (Latin, Greek, Germanic, and Romance Languages). Students analyze meanings of English words by examining roots, prefixes, and suffixes. Students analyze the connotative and denotative meaning of words in a variety of contexts and the reasons for language change. Students write about word history and semantics in texts that require etymological sensitivity, such as Renaissance poetry or works in translation.

### 1062 Grammar (A) (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.

### 1064 Linguistics (A) (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.

### 1070 Debate (A) (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).

### 1074 Critical Thinking and Argumentation (A) (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.

### 1076 Speech (A) (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.

# 1078 Advanced 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.

#### 1080 Journalism (A) (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 in order to analyze messaging techniques and identify and avoid the presentation of false or misleading information. By the end of the semester, students write, shoot, and design stories for print and digital media products.

#### 1082 Library Media (A) (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.

#### 1084 Digital Media (A) (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.

#### 1086 Student Media (A) (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.

### 1090 Composition (A) (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. The course can be offered in conjunction with a literature course, or schools should embed Indiana Academic Standards for English/Language Arts reading standards within the curriculum.

#### 1092 Creative Writing (A) (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. The course can be offered in conjunction with a literature course, or schools should embed Indiana Academic Standards for English/Language Arts reading standards within the curriculum.

### 1094 Expository Writing (A) (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. The course can be offered in conjunction with a literature course, or schools should embed Indiana Academic Standards for English/Language Arts reading standards within the curriculum.

# 1096 Technical Communication (A) (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. The course can be offered in conjunction with a literature course, or schools should embed Indiana Academic Standards for English/Language Arts reading standards within the curriculum.

# 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. The course can be offered in conjunction with a literature course, or schools should embed Indiana Academic Standards for English/Language Arts reading standards within the curriculum.

# 1120 Developmental Reading (A) (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 classwork will address all of the Indiana Academic Standards.

### 1120 Developmental Reading (A) (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.

### **Fine Arts Courses**

#### 0518 Musical Theater (A) (MUS THTR)

Musical Theatre is based on the Indiana Academic Standards for Theatre. Students in this course study the history of musical theatre 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, theatre, dance, and visual arts faculty. These activities should incorporate elements of theatre history, culture, analysis, response, creative process, and integrated studies. Additionally, students explore career opportunities in the theatre, attend and critique theatrical productions, and recognize the responsibilities and the importance of individual theatre patrons in their community.

### 4000 Introduction to Two-Dimensional Art (L) (A) (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.

# 4002 Introduction to Three-Dimensional Art (L) (A) (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.

### 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.

### 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.

#### 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.

### 4024 Art History (A) (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.

## 4026 Fine Arts Connections (A) (FN ART CONN)

Fine Arts Connections is a course based on the Indiana Academic Standards for Visual Art, Music, Theatre, 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.

### 4040 Ceramics (L) (A) (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.

#### 4042 Jewelry (L) (A) (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 judgements 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.

### 4044 Sculpture (L) (A) (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.

### 4046 Fiber Arts (L) (A) (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.

### 4060 Drawing (L) (A) (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.

### 4062 Photography (L) (A) (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 dark room 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.

#### 4064 Painting (L) (A) (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.

### 4066 Printmaking (L) (A) (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.

#### 4082 Digital Design (L) (A) (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.

# 4086 Visual Communication (L) (A) (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.

### 4140 Dance History and Appreciation (A) (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.

# 4142 Dance Choreography: Ballet, Modern, Jazz, or Ethnic-Folk (L) (A) (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.

# 4146 Dance Performance: Ballet, Modern, Jazz, or Ethnic-Folk (L) (A) (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.

# 4160 Beginning Concert Band (L) (A) (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.

### 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.

#### 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.

### 4166 Beginning Orchestra (L) (A) (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.

# 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.

# 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.

### 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.

### 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.

# 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.

### 4182 Beginning Chorus (L) (A) (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.

### 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.

# 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.

### 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.

#### 4200 Applied Music (L) (APP 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.

#### 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.

### 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.

# 4206 Music History and Appreciation (A) (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.

# 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.

## 4240 Advanced Theater Arts (L) (ADV THTR)

Advanced Theatre Arts is based on the Indiana Academic Standards for Theatre. Students enrolled in Advanced Theatre 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 theatre history, culture, analysis, response, creative process, and integrated studies. Additionally, students explore careers in theatre arts and begin to develop a portfolio of their work. They also attend and critique theatre productions and identify ways to support the theatre in their community.

#### 4242 Theater Arts (L) (A) (THTR ARTS)

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

#### 4244 Technical Theater (L) (TECH THTR)

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

### 4246 Theater Arts History (A) (THTR ART HST)

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

### 4248 Theater Production (L) (A) (THTR PROD)

Theatre Production is based on the Indiana Academic Standards for Theatre. Students enrolled in Theatre Production take on responsibilities associated with rehearsing and presenting a fully-mounted theatre 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 theatre history, culture, analysis, response, creative process, and integrated studies. Additionally, students investigate a theatre 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 theatre in their community.

#### 4250 Advanced Acting (L) (ADV ACTING)

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

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

Advanced Technical Theatre is based on the Indiana Academic Standards for Theatre. Students enrolled in Advanced Technical Theatre 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 theatre history, culture, analysis, response, creative process, and integrated studies. Additionally, students investigate technical theatre 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 theatre in their community.

# 4254 Theater Arts Special Topic (THTR ART ST)

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

### 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, theatre 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.

### **Health and Wellness Courses**

### 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.

# 3506 Health and Wellness Education (A) (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.

### 3508 Current Health Issues (A) (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.

### International Baccalaureate Courses

The International Baccalaureate (IB) Diploma Programme 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; and
- 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. Diploma Programme 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 Diploma Programme 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 Diploma Programme 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 Diploma Programme 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.

# 0556 IB Environmental Systems and Societies HL (IB ESS HL)

IB Environmental Systems and Societies (ESS) is an interdisciplinary course, encompassing a mixture of methodologies, techniques, and knowledge associated with both IB diploma subjects (sciences and individuals and societies) to engage students in the challenges of 21st century environmental issues. It requires its students to develop a diverse set of skills, knowledge and understanding from different disciplines and a scientific approach through explorations of

environmental systems. Students also acquire understandings and methods from individuals and societies subjects while studying sustainability issues within social, cultural, economic, political, and ethical contexts. The course emphasizes the ability to perform research and investigations and to participate in philosophical, ethical, and pragmatic discussions of the issues involved from the local through to the global level.

#### 0553 IB Personal and Professional Skills I (PPS I, 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.

#### 0554 IB Personal and Professional Skills II (PPS II, 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.

### 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.

# 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 Higher Level, 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.

### 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 Standard Level, 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.

# 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 theatre. 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 theatre 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).

# 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.

# 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.

# 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.

### 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.

# 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.

### 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.

### 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.

# 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. The 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.

#### 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.

#### 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.

### 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.

#### 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.

### 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.

### 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.

# 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.

# 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.

# 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.

# 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 experimental (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.

# 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.

# 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.

## 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 higher level should be able to follow university courses in other disciplines in the language B that is studied.

### 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.

### 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.

# 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.

### 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.

### 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.

### 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.

# 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.

# 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.

### 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.

## 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.

### 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.

## 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.

### 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.

# 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.

# 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.

# 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.

# 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.

# 4094 IB World Language ab Initio Higher Level (WL AIH IB)

The IB language ab initio Higher 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.

## 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.

## 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.

## 4212 IB 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.

## 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.

## 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.

## 4264 IB Theater Arts Standard Level (THTR S IB)

The IB Theatre Arts Standard 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.

### 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.

## 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.

## 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.

## 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.

## 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.

## 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.

### 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.

# 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.

# 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.

# 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.

## **Mathematics Courses**

## 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.

### 2516 Algebra I Lab (A) (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.

## 2518 Integrated Mathematics I Lab (A) (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, gradelevel 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.

### 2520 Algebra I (A) (ALG I)

Algebra I formalizes and extends the mathematics students learned in the middle grades. The

Indiana Academic Standards for Algebra I consist of five domains: Number Systems, Expressions, and Functions; Linear Equations, Inequalities, and Functions; Systems of Linear Equations and Inequalities; Quadratic and Exponential Equations and Functions; and Data Analysis & 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.

## 2522 Algebra II (A) (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. The Indiana Academic Standards for Algebra II consist of six domains: Arithmetic and Structure of Expressions, Equations, and Functions; Function Families; Modeling with Functions and Data; Modeling with Advanced Algebra; Modeling with Data and Statistics; and Modeling with Quantities. 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.

## 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, and radical 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. The Indiana Academic Standards for Analytical Algebra II consist of six domains: Arithmetic and Structure of Expressions, Equations, and Functions; Function Families; Modeling with Functions and Data; Modeling with Advanced Algebra; Modeling with Data and Statistics; and Modeling with Quantities. Additionally, Analytical Algebra II should focus on the application of mathematics in various disciplines including business, finance, science, CTE, 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. The essential standards for Analytical Algebra II are different from those noted for Algebra II, which may support students in a variety of STEM-related and non-STEM post-secondary pursuits.

### 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.

# 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.

### 2532 Geometry (A) (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. The Indiana Academic Standards for Geometry consist of five domains: Geometry Foundations, Triangles, Quadrilaterals and Other Polygons, Circles, and Transformations & Three-Dimensional Solids. 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.

# 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 a mathematics course 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.

## 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.

## 2550 Quantitative Reasoning (A) (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.

## 2554 Integrated Mathematics I (A) (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.

# 2556 Integrated Mathematics II (A) (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, rounds 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.

## 2558 Integrated Mathematics III (A) (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.

### 2560 Mathematics Lab (A) (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 an additional credit-bearing 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.

# 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.

## 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.

### 2595 PRIME Math (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.

## **Multidisciplinary Courses**

## 0500 Basic Skills Development (A) (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.

## 0502 Cadet Teaching Experience (A) (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.

### 0509 Jobs for America's Graduates (A) (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.

## 0512 Environmental Studies (A) (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.

### 0514 Humanities (A) (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 actually apply it to the human environment. Particular attention is given to the relevance of these applications in regard to the current conditions of life.

# 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.

## 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.

## 0522 Career Information and Exploration (A) (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.

### 0524 Community Service (A) (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.

# 0530 Career Exploration Internship (A) (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.

## 0532 College-Entrance Preparation (A) (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 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.

# 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: (1) Integrating academic study with service experience, (2) Reflecting larger social, economic, and societal issues, and (3) Collaborative efforts between students, schools, and community partners.

# 0543 Work-Based Learning Level 1: Employability Skills Development (WBL Lvl 1)

The Work Based Learning Level 1 course may be used to capture and track Career Relevant Learning Experiences that develop career readiness competencies and employability skills. Career Relevant Learning includes the universe of business and career connected experiences and opportunities that allow K-12 and postsecondary students to engage in meaningful conversations around careers and the world of work. This level 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. Career Relevant Learning includes the universe of business and career connected experiences and opportunities that allow K-12 and postsecondary students to engage in meaningful conversations around careers and the world of work. This level includes a to an employer assigning a student meaningful job tasks to develop his or her skills, knowledge, and readiness for work. Career Relevant Learning includes the universe of business and career connected experiences and opportunities that allow K-12 and postsecondary students to engage in meaningful conversations around careers and the world of work. This level includes paid or non-paid experiential 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 (e.g., Governor's Work Ethic Certificate, student entrepreneurial experience, supervised agricultural experience, school-based enterprise, or employability skills co-op or part-time job).

# 0544 Work-Based Learning Level 2: Internship (WBL LvI 2)

The Work Based Learning Level 2 may be used to capture experiences that meet the newly adopted definition of WBL. Work-based Learning is defined as: Sustained interactions between participants (adults/youth) and professionals in real or simulated workplace settings that foster in-depth, firsthand experiences with the tasks required in a given career field, intentionally aligned and evaluated with course/training competencies, while offering participants the opportunity to gain intentional career outcomes. Internships and workplace simulations provide access or advancement in a career field

that 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 pathway coursework in real world workplace settings. Internships may take a variety of forms but can be generally categorized as paid or non-paid workplace simulations, academic or technical internships (i.e., career exploration internships, cadet teaching, health occupations explorations, WBL Capstone, NLPS Capstone, and clinical/practicums).

# 0545 Work-Based Learning Level 3: Modern Youth Apprenticeship/Pre-Apprenticeship (WBL LvI 3)

The Work Based Learning Level 3 may be used to capture experiences that meet the newly adopted definition of WBL. Work-based Learning is defined as: Sustained interactions between participants (adults/youth) and professionals in real or simulated workplace settings that foster in-depth, firsthand experiences with the tasks required in a given career field, intentionally aligned and evaluated with course/training competencies, while offering participants the opportunity to gain intentional career outcomes. Modern Youth Apprenticeships are work-based learning programs designed for high school students. They generally incorporate the key elements of the standard apprenticeship model, including paid workplace experience and related technical instruction. Modern youth apprenticeships must result in postsecondary credit and/or industry recognized credentials. Modern youth apprenticeships must result in a greed to by the student, school, and employer that may also include Pre-Apprenticeship programs. Pre-apprenticeship must be articulated with a registered apprenticeship program and include at least two semesters of related academic instruction eligible for secondary academic credit.

# 0546 Work-Based Learning Level 4: Federal Registered Apprenticeship (WBL LvI 4)

The Work Based Learning Level 4 may be used to capture experiences that meet the newly adopted definition of WBL. Work-based Learning is defined as: Sustained interactions between participants (adults/youth) and professionals in real or simulated workplace settings that foster in-depth, firsthand experiences with the tasks required in a given career field, intentionally aligned and evaluated with course/training competencies, while offering participants the opportunity to gain intentional career outcomes. Registered 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. Paid U.S. Department of Labor Registered 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.

# 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.

## 0550 Religion (A) (RELIGION)

Course content is to be determined locally to meet local needs.

## 0590 Pilot Course (A) (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.

# 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.

# 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.

## 3524 Introduction to Public Service (INTRO PUB SERV)

Introduction to Public Service offers a comprehensive overview of public service, focusing on both military and non-military avenues. Students will explore the multifaceted benefits of military service, including personal and professional development, leadership skills, and community impact. A historical overview of U.S. military history and the history of non-military public service will provide context for the evolution of public service and its significance in shaping national identity. Key components of this course include an introduction to military customs and courtesies, instruction on ethical behavior and decision-making, development of leadership and analytical reasoning skills, an introduction to career paths (and their entrance requirements) available within public service, incentives for public service, and the significance of public service.

## **Physical Education Courses**

## 3542 Physical Education I (L) (A) (PHYS ED I)

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). See 511 IAC 7-27-9, 7-27-11.

## 3544 Physical Education II (L) (A) (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). See 511 IAC 7-27-9, 7-27-11.

# 3560 Elective Physical Education (L) (A) (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). See 511 IAC 7-27-9, 7-27-11.

## **Science Courses**

# 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.

## 3010 Environmental Science (L) (A) (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.

## 3024 Biology I (L) (A) (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.

## 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.

## 3030 Life Science (L) (A) (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.

## 3044 Earth and Space Science I (L) (A) (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.

# 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.

### 3064 Chemistry I (L) (A) (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.

### 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.

### 3084 Physics I (L) (A) (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.

### 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.

# 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 (e.g., anatomy/physiology, astronomy, biochemistry, botany, ecology, electromagnetism, genetics, geology, nuclear physics, organic chemistry). 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.

## 3102 Physical Science (L) (A) (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.

# 3108 Integrated Chemistry-Physics (L) (A) (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.

# 5276 Anatomy and Physiology (A) (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.

## **Social Studies Courses**

### 1500 African Studies (A) (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.

#### 1502 Anthropology (A) (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.

### 1504 Applied Economics (A) (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.

### 1506 Asian Studies (A) (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.

## 1508 Citizenship and Civics (A) (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.

# 1512 Current Problems, Issues, and Events (A) (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.

### 1514 Economics (A) (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.

### 1516 Ethnic Studies (A) (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.

## 1518 Indiana Studies (A) (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.

# 1520 International Relations (A) (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.

# 1522 Introduction to Social Science (A) (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.

## 1524 Latin American Studies (A) (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.

## 1526 Law Education (A) (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.

## 1528 Modern World Civilization (A) (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.

## 1530 Political Science (A) (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.

### 1532 Psychology (A) (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.

## 1534 Sociology (A) (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 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.

# 1536 State and Local Government (A) (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.

## 1538 Topics in History (A) (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.

## 1540 United States Government (A) (US GOVT)

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.

## 1542 United States History (A) (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.

### 1544 Urban Affairs (A) (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.

## 1546 World Geography (A) (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.

## 1548 World History and Civilization (A) (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.

### 1550 Topics in Social Science (A) (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 topic 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.

# 1570 Geography and History of the World (A) (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.

## 4558 Global Economics (A) (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.

## World Language Courses

### 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.

## 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.

### 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.

### 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.

## 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.

## 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.

## 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.

## 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.

## 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.

### 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.

## 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.

### 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.

### 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.

### 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.

### 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.

## 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.

#### 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.

#### 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.

#### 2060 Japanese I (JPN 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.

#### 2062 Japanese II (JPN 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.

#### 2064 Japanese III (JPN 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.

#### 2066 Japanese IV (JPN 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.

#### 2068 Japanese V (JPN 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.

#### 2070 Japanese VI (JPN 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.

#### 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.

#### 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 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

### 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.

#### 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.

#### 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.

#### 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.

### 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.

### 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.

#### 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.

#### 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.

#### 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.

#### 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.

### 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.

## 2188 English as a New Language (English Language Development) (A) (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.

## 2190 Language for Heritage Speakers I (A) (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.

## 2192 Language for Heritage Speakers II (A) (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.

## 2194 Language for Heritage Speakers III (A) (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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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 in the community beyond the classroom is explored through the identification and evaluation of resources intended for native Italian speakers.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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 content areas with the target language and cultural understanding, as well as the exploration of community resources intended for native Korean speakers.

#### 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.

### 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 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.



### INDIANA COMMISSION for HIGHER EDUCATION

# High School Career and Technical Education Course Titles and Descriptions

2025-2026



INDIANA COMMISSION for HIGHER EDUCATION

### **CTE Course Titles and Descriptions Changes**

This page begins the Career and Technical Education (CTE) courses section of the Course Titles and Descriptions. All CTE courses are overseen by the Commission for Higher Education and questions regarding CTE courses can be directed to <u>CTE@che.in.gov</u>.

A tracking document has been included at the end of the Course Titles and Descriptions, but noteworthy changes within the CTE section are also outlined on this cover page. Nationally, work has been done to modernize and realign CTE career clusters to better support the changing landscape of work in the United States and globally. These recently released national changes have resulted in some adjustments to Indiana's CTE career clusters for the 2025-2026 school year. The new National Career Clusters Framework released in October 2024 by *Advance CTE* can be found here.

Career clusters (Advanced Manufacturing, Agriculture, Digital Technology, etc.) primarily serve as a way to organize available CTE programs of study. In the CTE Course Titles and Descriptions below available CTE programs of study have been realigned with the new career cluster framework. Some programs of study have been moved to different clusters, newly created career clusters, or had a cluster name change. Notable career cluster-related changes are shared below:

- The **STEM** cluster has been removed. This change was made in the updated national framework to avoid duplication and more accurately reflect how both industry and programs of study are designed.
  - The four dimensions of STEM (Science, Technology, Engineering, and Mathematics) are now dispersed across multiple Career Clusters. Programs of study previously within that career cluster have been reassigned to multiple other career clusters.
- Information Technology is now Digital Technology
- Human Services and Health Sciences have been combined into one career cluster (Health & Human Services).
- Energy & Natural Resources is a new career cluster.
- The Business Management & Administration, Marketing, and Finance career cluster has been split into 3 career clusters: Financial Services, Marketing, Sales, & Entrepreneurship, and Business Management
- Transportation, Distribution, and Logistics is now Supply Chain & Transportation.
- Architecture and Construction is now Construction.
- Hospitality and Tourism is now Hospitality, Events, & Tourism.
- Law, Public Safety, Corrections and Security is now Public Service & Safety

Other relevant updates to the CTE section are shared below:

- Addition of the Social and Community Services Capstone (7279) in the Social and Community Services pathway
- Addition of a Youth Apprenticeship course code (6149). This course can be utilized to give course credit for students who are in various forms of youth apprenticeships,

including a Modern Youth Apprenticeship, pre-apprenticeship, or an apprenticeship focused on youth that is not federally registered.

- For Youth Apprenticeships aligned to a CTE program of study, it is still recommended to utilize existing CTE courses. The 6149 course code is primarily designed for experiences that do not align to an existing CTE program of study.
- Updates to hour requirements for work-based learning focused courses.
- Architecture, Engineering, and Construction pathway noted as being phased out in future years
- Removal of 7175 Introduction to Cosmetology as part of realignment of introductory courses to explore multiple programs of study within a career cluster.

IMPORTANT NOTE: In addition to the above updates, as a reminder, introductory and foundational courses are no longer listed separately when offered as applied. More information on our applied course policy can be found on page 202 of the <u>2024-2025 Course Titles and</u> <u>Descriptions</u>.



Questions regarding Indiana's secondary CTE courses can be directed to <u>CTE@che.in.gov</u>. Please visit the <u>CTE Programs of Study</u> webpage to view additional resources.

### **Advanced Manufacturing**

## 4796 Introduction to Advanced Manufacturing and Logistics INT ADV MFG

Introduction to Advanced Manufacturing and Logistics introduces students to the field of advanced manufacturing and logistics. The course explores the field's relationship to society, individuals, and the environment. Students learn to apply modern manufacturing processes in order 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 processes, students are introduced to the logistical and business principles utilized in today's advanced manufacturing industry. Students gain a basic understanding of tooling, electrical skills, operation skills, inventory principles, Material Safety Data Sheets (MSDS), chart and graph reading, and other Manufacturing Skill Standards Council (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.

### 4880 Advanced Manufacturing: Special Topics ADV MFG ST

Advanced Manufacturing: Special Topics is an extended-learning experience designed to address the advancement and specialization of careers within the Advanced Manufacturing Career Cluster through the provision of a specialized course for a specific workforce need in the school's region. The learning experience takes place 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 an 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. Course Standards must prepare students to advance in this career field and, where applicable, provide students with opportunities for certification or dual credit. Participation in a related CTSO is encouraged to aid in the development of leadership, communication, and other career-related skills.

## 6146 Advanced Career & Technical Education, College Credit: Advanced Manufacturing ADV CTE CC AMFG

Advanced Career and Technical Education, College Credit is the course title covering any advanced CTE course offered for credit by an accredited postsecondary 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 what is 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.

#### 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.

### 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 solutions to problems. 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 develop aesthetic ideas. The design process encourages the students to engage in higher level thinking to create solutions for many types of problems.

## 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.

#### 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.

### **Biotechnology**

#### 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.

#### 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.

### 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 as well as biological and medical devices. Students will also discuss how laws and regulations influence the pharmaceutical, biotechnology, and medical device industry as a whole. The goal of the course is to provide students with a greater understanding of how to interact with the U.S. Food and Drug Administration (FDA) and other global regulatory agencies.

#### 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.

#### 7344 Biotechnology Capstone BIOTECH CAP

The Biotechnology Capstone 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 with 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.

### **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.

### 7202 Manufacturing Principles and Design PRIN DES TECH

Manufacturing Principles and Design challenges students to 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.

### 7223 Mechanical Design Capstone MECH DES CAP

The 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.

#### 7197 BIM Architecture BIM ARCH

BIM Architecture introduces 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.

### 7225 Architectural Design Capstone ARCH DES CAP

The Architectural Design Capstone covers residential design and drafting. Topics include interior space planning, structural design and development of working drawings. The course provides an 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.

### **Electronics and Computer Technology**

#### 7361 Electronic Fundamentals ELEC FUND

In Electronic Fundamentals, students 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.

### 7362 Electronics and Computer Technology Capstone ECT CAP

Electronics and Computer Technology Capstone provides the opportunity for students to dig deeper into foundational electronic concepts including circuit analysis and digital electronics modules. This course incorporates classroom, laboratory, and work-based learning 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 postsecondary education are critical components of this pathway.

### 7098 Semiconductor Fabrication Capstone SEMI FAB CAP

The semiconductor fabrication capstone provides students with an opportunity to delve-into the burgeoning semiconductor manufacturing industry. Students will be challenged to identify, understand, and apply core concepts to semiconductor manufacturing. Topics such as microelectromechanical systems and vacuum technology in manufacturing will be discussed. Emphasis will also be placed on specific operating and safety procedures which the fabrication of semiconductors requires.

### **Engineering**

### 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.

### 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.

#### 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.

### 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. Emphasis should be placed on learning ways that environmental factors might influence the planning and design of a project. 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.

## 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.

#### 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.

## 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.

## 5698 Engineering Design and Development ENG DES DEV

Engineering Design and Development (EDD) 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 a 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.

### Industry 4.0 - Smart Manufacturing

## 7220 Principles of Industry 4.0 and Digital Manufacturing PRIN DIG MFG

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.

### 4728 Robotics Design and Innovation ROB DES INOV

The Robotics Design and Innovation course introduces students to technological innovations that are revolutionizing modern manufacturing and logistic centers across global markets. Students will explore careers that are related to the fourth industrial revolution and will 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, and big data analytics. Students will design a part to be mass-produced using a process 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.

#### 7100 Smart Manufacturing Systems SMRT MFG SYS

Smart Manufacturing Systems focuses on the electrical system that supports the 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, Programming Logic Controller (PLC) troubleshooting, cyber security, smart sensors, and smart network communications.

## 7222 Industry 4.0 - Smart Manufacturing Capstone SMRT MFG 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.

## 7250 Semiconductor and EV Battery Manufacturing Capstone SEV MFG

Course description and competencies are still under development.

## 7108 Principles of Advanced Manufacturing PRIN ADV MFG

Principles of Advanced Manufacturing includes classroom and laboratory experiences, which are focused on industrial technology and manufacturing trends. Covered topics include safety and impact, manufacturing essentials, lean manufacturing, design principles, and careers in advanced manufacturing. Students participate in hands-on projects and team activities to learn necessary skills while using the latest industry technologies. Work-Based Learning experiences and industry partnerships are highly encouraged for an authentic industry experience.

#### 7103 Advanced Manufacturing Technology ADV MFG TECH

Advanced Manufacturing Technology introduces students to a variety of manufacturing processes and procedures that are used in real-world manufacturing environments. The course covers key electrical principles—including current, voltage, resistance, power, inductance, capacitance, and transformers—as well as the basic principles of mechanical and fluid power. Additional course topics include, types of production, production materials, machining and tooling, manufacturing planning, production control, and product distribution. Students will be expected to understand the product life cycle from conception through distribution. This course also focuses on technologies used in production processes such as basic power systems, energy transfer systems, and machine operation. The course utilizes a combination of lecture, lab, online simulation, and programming to prepare students for Certified Production Technician Testing through Manufacturing Skill Standards Council (MSSC).

### Industrial Automation and Robotics

#### 7106 Mechatronics Systems MECH SYS

Mechatronics Systems covers the basic electrical and mechanical components and functions of a complex mechatronics system. Through a systems-based approach, students learn about the mechanical components that lead and support the flow of energy through a mechanical system. Emphasis is placed on the development of strategies for increasing efficiency and reducing wear and tear. After gaining an understanding of the complete system, students learn and apply troubleshooting strategies to identify, localize, and (where possible) correct malfunctions. Preventive maintenance of mechanical elements and electrical drives as well as safety issues within the system are also discussed.

## 7224 Industrial Automation and Robotics Capstone IND ROB CAP

The Industrial Automation and Robotics Capstone 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.

### Industrial Technical Maintenance - Electrical

### 7102 Industrial Electrical Fundamentals IND ELEC FUND

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.

### 7260 Industrial Electrical Capstone IND ELEC CAP

The Industrial Electrical Capstone 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 lectures, labs, online simulations and programming to

prepare students for the C-207 Programmable Controller Systems 1 Certification through Smart Automation Certification Alliance (SACA).

### Industrial Technical Maintenance - Mechanical

## 7104 Industrial Maintenance Fundamentals IND MAINT FUN

Industrial Maintenance Fundamentals introduces students to fundamental Welding and Machining skills. Students will 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.

## 7261 Industrial Maintenance Capstone IND MAINT CAP

The Industrial Maintenance Capstone 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).

### **Precision Machining**

### 7109 Principles of Precision Machining PRIN PREC MACH

Principles of Precision Machining provides 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, the use of 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, which may be required for college dual credit.

## 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, which may be required for college dual credit.

### 7107 Advanced Precision Machining PREC MACH

Advanced Precision Machining builds upon the Turning and Milling processes learned in Precision Machining Fundamentals and builds 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 Institute for Metalworking Skills (NIMS) Grinding I Certification, which may be required for college dual credit.

## 7219 Precision Machining Capstone PREC MACH CAP

The 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. Throughout the course there will be a continued focus on workplace safety.

### Welding Technology

### 7110 Principles of Welding Technology PRIN WELD TECH

The Principles of Welding Technology course 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.

### 7111 Shielded Metal Arc Welding SHLD MAW

Shielded Metal Arc Welding provides students with exposure to both the theory behind and the practical application of the Shielded Metal Arc Welding process. Covered 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.

#### 7101 Gas Welding Processes GAS WELD PROC

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.

## 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.

### Agriculture

## 5056 Introduction to Agriculture, Food, and Natural Resources INT AFNR

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.

## 5228 Supervised Agricultural Experience (SAE) SAE

The Supervised Agricultural Experience (SAE) is designed to provide students with opportunities to gain experience in the agricultural field(s) in which they are interested. Students will apply knowledge learned in the classroom, laboratory, and other training sites to real-life situations with a standards-based learning plan. 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.

## 6130 Advanced Career & Technical Education, College Credit: Agriculture ADV CTE CC AG

Advanced Career and Technical Education, College Credit is the course title covering any CTE advanced course offered for credit by an accredited postsecondary 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.

#### 6150 Agriculture: Special Topics AG ST

Agriculture: Special Topics is an extended-learning experience designed to address the advancement and specialization of careers within a specific 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.

### 7117 Principles of Agriculture PRIN AG

Principles of Agriculture exposes students to the diversity of career options found within the agricultural industry and to other 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.

### 7262 Agricultural Research Capstone AG RES CAP

The Agricultural Research Capstone 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 processes 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. This course can be used as a capstone experience for any agriculture pathway.

#### 7238 Agribusiness Capstone AG BUS CAP

The Agribusiness Management Capstone 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. This course can be used as a capstone experience for any agriculture pathway.

## 7230 Agriculture Biotechnology Capstone AG BIO CAP

The Ag Biotechnology Capstone 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.

### Ag Mechanical and Engineering

## 5088 Agriculture Power, Structure, and Technology AG POW

Agriculture Power, Structure and Technology is a lab-intensive course in which students develop an understanding of the 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.

## 7112 Agriculture Structures: Fabrication and Design AG ST FAB DES

Agricultural Structures: Fabrication and Design focuses on metal work and agricultural structures. This course allows 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.

## 7228 Agriculture Mechanization and Technology Capstone AG MECH CAP

The Agriculture Mechanization and Technology Capstone 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.

### Agri-Science – Plants or Animals

#### 5008 Animal Science ANML SCI

Animal Science provides students with an overview of the animal agriculture industry. Students participate in a 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.

### 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.

### 5074 Advanced Life Science: Plants and Soils ALS PLT/SL

Advanced Life Science: Plants and Soils 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.

## 5072 Advanced Life Science: Foods ALS FOODS

Advanced Life Science: Foods 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.

## 5070 Advanced Life Science: Animals ALS ANIML

Advanced Life Science: Animals 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.

#### 5102 Food Science FOOD SCI

Food Science 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.

### **Horticulture**

#### 5132 Horticultural Science HORT SCI

Horticulture Science 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.

## 7114 Greenhouse and Soilless Production GRN S PROD

Greenhouse and Soilless Production 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.

### 7232 Horticulture Capstone HORT CAP

The Horticulture Capstone 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.

### **Landscaping**

## 7115 Landscape and Turf Management LAND TUR MAN

Landscape and Turf Management provides students 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.

## 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.

### **Precision Agriculture**

### 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. Students will gain an understanding of the 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.

#### 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.

### 7236 Precision Agriculture Capstone PREC AG CAP

The Precision Agriculture Capstone 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.

### **Veterinary Science**

## 7280 Principles of Veterinary Science PRIN VET SCI

Principles of Veterinary Science provides students with an overview of the small and large animal veterinary industry which includes companion, food, and exotic animals. Principles of Veterinary Science provides students with an overview of common veterinary careers, including: veterinary assistant, veterinary technician, and veterinarian. Students will learn the foundational knowledge necessary for a career working with either large or small animals. Students will also begin developing practical lab skills and an understanding of common veterinary office practices.

### 7281 Veterinary Science VET SCI

Veterinary Science provides students with opportunities to participate in a variety of activities including laboratory work. Students will explore concepts including: medical terminology, laboratory procedures, clinical examination procedures, and the principles of animal diseases. Students will be introduced to issues associated with working in a veterinary clinic, veterinary clinic management, and veterinary law and ethics.

## 7282 Veterinary Science Capstone VET SCI CAP

The Veterinary Science Capstone 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 should explore concepts related to pharmacy and pharmacology, medical math, animal nursing, radiology and ultrasound imaging, and surgical preparation and assisting.

### Water Systems

### 7381 Principles of Public Water Systems PRIN WATER SYS

Principles of Public Water Systems provides students with an understanding of the implementation and management of water systems at the local, state, and federal levels. Students learn about the economic and environmental factors associated with operating a public water distribution system, including the rules, regulations and safety requirements therein.

## 7382 Water Systems Fundamentals WATER SYS FUND

Water Systems Fundamentals provides an overview of water distribution systems, specialized treatment processes, disinfection procedures, and general water system maintenance. Additional topics covered include organizational management, regulatory compliance, health and safety programs, and personal and professional skills.

#### 7383 Advanced Water Systems ADV WATER SYS

Advanced Water Systems focuses on the 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.

### 7384 Water Systems Capstone WATER SYS CAP

The Water Systems Capstone focuses on higher-level concepts that operators may be exposed to as they advance in their chosen careers. Course topics may include asset management, risk assessment and emergency response training, instrumentation (SCADA & GIS), water audits, construction inspection, and/or water plant administration.

### Arts, Entertainment & Design

## 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.

#### 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.

## 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.

### 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.

## 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 postsecondary education in fashion, textile, and apparel-related careers.

### 6134 Advanced Career & Technical Education, College Credit: Arts, Entertainment, and Design 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 postsecondary 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.

### **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.

#### 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.

### 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.

### 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.

### 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.

## 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.

#### Fashion and Textiles

### 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.

### 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.

### 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.

## 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.

### **Interior Design**

#### 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.

### 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.

### 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.

### 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 coursework and a work-based learning experience.

### **Radio and Television**

### 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.

### 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.

#### 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.

#### 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.

### **Business Management**

### 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.

#### 7201 Business Management Capstone BUS MGMT CAP

The Business Management Capstone is an applied course, and students will be implementing the correct legal, business, human resources, operations, marketing and financial structures after derisking their idea and launching their business.

### 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.

### **Business Administration**

#### 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.

#### 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.

#### 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.

### 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.

### **Business Operations and Technology**

### 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.

### 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.

### 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.

## 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.

### Construction

## 4792 Introduction to Construction INT CONST

Introduction to Construction offers students 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, Heating, Ventilation, and Air Conditioning (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.

## 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. This learning experience takes place 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 should focus on learning about employment opportunities and obtaining the knowledge, skills and attitudes essential for success in a specific occupation. Course standards and curriculum must be tailored to the specific profession, must prepare students to advance in this career field, and where applicable, must 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.

### 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 postsecondary 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.

### 7130 Principles of Construction Trades PRIN CON TR

Principles of Construction Trades provides students with the basic skills needed to continue in a construction trade field. Covered topics 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 worksite safety. Additionally, students study the roles of individuals and companies within the construction industry. Emphasis is placed on the importance of mathematical and communication skills within the construction industry.

### **Building and Facilities Maintenance**

## 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.

### 7286 Advanced Building and Facilities Maintenance ADV BLDG FAC MAINT

Advanced Building and Facilities Maintenance prepares students to complete more advanced repairs involving a building's mechanical system including electrical, Heating, Ventilation, and Air Conditioning (HVAC), and plumbing.

## 7287 Building and Facilities Maintenance Capstone BLDG FAC MAINT CAP

Building and Facilities Maintenance Capstone will continue to develop students' facilities maintenance skills (ideally through a work-based learning experience). Students will also explore additional topics such as processing work orders, fair housing regulation compliance, environmental and regulation compliance, reporting and documentation of maintenance activities, and implementation of a preventive maintenance schedule.

### **Civil Construction**

## 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 interpretation of 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.

### 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.

## 7240 Civil Construction Capstone CIV CSTR CAP

The Civil Construction Capstone covers topics such as earthmoving, finishing and grading, trenching and excavating, plant operations, paving, horizontal formwork, and vertical formwork. Additionally, students learn skills associated with working with concrete and bridge construction. The course prepares students for the NCCER Level 2 Certificate.

#### **Construction Trades - 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. Students learn the procedures for laying out and constructing floor systems, wall systems, and ceiling joists. Students also spend time learning the principles of roof framing, and basic stair layout. Additionally, students will be introduced to building envelope systems.

### 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. Covered 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.

### 7242 Construction Trades: General Carpentry Capstone CSTR TR CAP

The Construction Trades: General Carpentry Capstone allows students to gain a deeper understanding and experience of the field of carpentry. This course builds upon the skills and concepts that students were first introduced to in Principles of Construction Trade, Construction Trades: General Carpentry, and Construction Trades: Framing and Finishing. Additional topics include an introduction to the National Electric Code, electrical safety, electrical circuits, basic electrical construction drawings, and residential electrical services. The course prepares students for the NCCER Carpentry Electrical Level 1 Certificates.

### **Construction Trades - Masonry**

### 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.

### 7391 Construction Trades: Masonry Capstone MASON CAP

The Masonry Capstone builds upon the skills learned in the Masonry Fundamentals course. Students become familiar with specialty techniques, such as the construction of 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.

#### **Construction Trades - Electrical**

## 7124 Construction Trades: Electrical Fundamentals ELEC FUN

This course covers the materials present within the NCCER Electrical Level 1 Certificate. Included modules cover topics such as an overview of 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.

### 7119 Construction Trades: 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 additional electrical concepts. Students will be ready to complete the NCCER Electrical Level 2 Certificate upon successful completion of the 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 covered include load calculations (branch and feeder circuits), conductor selection and calculations, and the 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.

### Heating, Ventilation, and Air Conditioning (HVAC)

## 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. Modules include history of the HVAC Industry, OSHA 10-Hour Construction Industry Training, and basic communication and customer service skills. This course will also cover basic electricity concepts.

### 7125 HVAC Fundamentals HVAC FUN

Heating, Ventilation, and Air Conditioning (HVAC) Fundamentals introduces fundamentals applicable to the heating and refrigeration phases of air conditioning. Course topics include: types of units, parts, basic controls, functions, and applications. Emphasis is placed on standard industry practices, tool and meter use, temperature measurement, heat flow, the combustion process, and piping installation practices. The course also covers the basic sequence of operation for gas, oil and electric furnaces. Students receive an introduction to compression systems used in mechanical refrigeration including the refrigeration cycle and system components. The course introduces students to 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 utilizes lectures, labs, and online simulations to prepare students for the nationally recognized certification exam as part of the outcome assessment learning objectives.

#### 7126 HVAC Service HVAC SER

Heating, Ventilation, and Air Conditioning (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.

## 7244 HVAC Capstone HVAC CAP

The Heating, Ventilation, and Air Conditioning (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 ductwork. 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.

### Heavy Equipment Operator

#### 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. Covered topics include: jobsite safety, identification of heavy equipment, utility tractors, earthmoving, and grades. This course prepares students for the NCCER Heavy Equipment Level 1 Certification.

#### 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.

## 7292 Heavy Equipment Capstone HVY EQUIP CAP

Heavy Equipment Capstone covers 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.

### 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.

## 7129 Fundamentals of Plumbing and Pipefitting PLB PIPE FUN

Plumbing and Pipefitting Fundamentals builds 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.

## 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.

## 7264 Plumbing and Pipefitting Capstone PLB PIPE CAP

The Plumbing and Pipefitting Capstone builds on the skills learned in Principles of Construction Trades, Plumbing and Pipefitting, and Advanced Plumbing and Pipefitting. This course is strictly for students who will either be prepared to earn at least a NCCER Level 3 or another similar plumbing certification and/or have completed at least one full-year's worth of an apprenticeship. In order to facilitate the completion of at least one of those goals, additional course competencies are expected to be developed on an as-needed basis.

# Architecture, Engineering, and Construction (Architectural Drafting and Design)

# 7295 Principles of Architecture, Engineering, and Construction PRIN AEC

The Principles of Architecture, Engineering, and Construction course introduces students to 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. This course also introduces architectural drafting and construction trades.

NOTE: This pathway is being phased out. Students who have not already started this pathway should not be enrolled in these courses. Please email CTE@che.in.gov with questions about transitioning to a new pathway.

## 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.

NOTE: This pathway is being phased out. Students who have not already started this pathway should not be enrolled in these courses. Please email CTE@che.in.gov with questions about transitioning to a new pathway.

### 7389 Advanced Architectural Drafting and Design

#### ADV ARCH DR

Advanced Architectural Drafting and Design builds on the concepts learned in Principles of Architecture, Engineering, and Construction as well as in Engineering and Construction. Students explore the history 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. Focus is placed on advanced Computer-Aided Design (CAD) techniques using the Autodesk Revit software.

NOTE: This pathway is being phased out. Students who have not already started this pathway should not be enrolled in these courses. Please email CTE@che.in.gov with questions about transitioning to a new pathway.

## 7297 Architecture, Engineering, and Construction Capstone AEC CAP

The Architecture, Engineering, and Construction Capstone builds upon what students have learned in previous program courses. Students will study advanced architectural software, electrical wiring, and will gain an understanding of the Indiana Residential Code for one- and two-family dwellings.

NOTE: This pathway is being phased out. Students who have not already started this pathway should not be enrolled in these courses. Please email <u>CTE@che.in.gov</u> with questions about transitioning to a new pathway.

### General CTE Courses (Foundational, Standard, & WBL)

#### Nonstandard CTE Courses

#### 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 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.

### 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 Career and Technical Education at the Indiana Commission for Higher 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 approved course framework.

### 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 Career and Technical Education at the Indiana Commission for Higher 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 approved course framework.

### 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 Career and Technical Education at the Indiana Commission for Higher 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 approved course framework.

### 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 Career and Technical Education at the Indiana Commission for Higher 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 approved course framework.

### Foundational CTE Courses

## 5394 Preparing for College and Careers (PCC) 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 national career clusters and Indiana's College and Career Pathways, in-depth investigation of one or more pathways, reviewing graduation plans, exploring postsecondary options and making 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.

## 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.

### 4565 Computing Foundations for a Digital Age COMPFOUND

Computers and the internet have revolutionized the way we access and disseminate information. As technology continues to change at an ever-increasing pace, the need for students to gain a foundational understanding of computer science is clear. Computing Foundations for a Digital Age is designed to introduce students to five major topics within computer science including computing systems, networks and the internet, data and analysis, algorithms and planning, and impacts of computing. The course introduces foundational computing concepts while exploring current events and building critical thinking, collaboration, problem solving, and other important skills that are invaluable for life in a global and technologically advancing society.

### 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 studied include

written/oral/visual communication, listening, informational reading, Internet research/analysis, and electronic communication. Concepts addressed will include adapting communication to the situation, purpose, and audience. Students produce related documents such as employee handbooks, instructional manuals, employment communication, organizational communication, business reports, and social/professional situations using word processing, presentation, multimedia, and desktop publishing software.

#### 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; identify sources of income, savings, and investing; understand banking, budgeting, record-keeping and manage 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.

### 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 postsecondary education in all career areas related to individual and family life.

### 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.

### 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 recommended 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 postsecondary education in all career areas related to nutrition, food, and wellness.

### 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 postsecondary education in all career areas related to nutrition, food, and wellness.

#### 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 recommended 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.

#### 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 postsecondary education in all career areas related to children, child development, and nurturing of children.

### 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 postsecondary 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.

### 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, practices that promote human development 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.

#### 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.

#### 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.

#### 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, 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.

### WBL CTE Courses

### 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. The course combines time spent on workplace activities and time spent doing 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.

#### 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.

#### 0530 Career Exploration Internship (CEI) CAR EXP INT

The Career Exploration Internship (CEI) course consists of 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, CEI 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.

## 5974 WBL Capstone WBL CAPS

WBL Capstone is a stand-alone course that prepares students for college and/or a career. This course occurs in real or simulated workplace settings and involves 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, parent or guardian, school, and employer partner 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 either on-the-job or in a classroom setting 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.

#### 6149 Youth Apprenticeship YOU APPSHIP

Youth apprenticeships are intensive, paid, Work-Based Learning experiences, which utilize a combination of on-the-job (OJT) and classroom related technical instruction (RTI). Youth Apprenticeships may take a variety of forms, including Pre-Apprenticeships, Modern Youth Apprenticeships, and apprenticeships focused on youth that are not federally registered. Youth Apprenticeships, in any form, should support progressive skill acquisition and lead to postsecondary or industry credentials.

#### 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, lead to postsecondary credentials and, in some cases, postsecondary 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.

### **Digital 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.

# 6022 Advanced Career & Technical Education, College Credit: Digital 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 postsecondary 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.

#### 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.

# 4803 Introduction to Computer Science and Digital Technology INTRO CS IT

Introduction to Computer Science allows students to explore the world of computer science and digital technology. Students will gain a broad understanding of the areas composing computer science and digital technology fields. Specifically, there is a focus on the areas of computer programming, gaming/mobile development, and artificial intelligence/ robotics.

# 5252 Computer Science: Special Topics CS 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.

## 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.

### **Computer Science**

# 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.

## 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.

#### 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.

### Cybersecurity (VU)

# 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).

## 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.

## 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.

### **Cybersecurity and Information Assurance (ITCC)**

# 7249 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.

### Information Technology 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.

# 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.

## 7247 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 environment. Additionally students have the chance to understand and apply Linux and Virtualization concepts.

#### 7245 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 environment. Additionally students have the chance to understand and apply Linux and Virtualization concepts.

### **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 supports 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.

# 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.

### 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.

#### 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.

## 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.

### Education

# 5415 Exploring Education Professions EX ED

Exploring Education Professions is for students interested in a career in (or exploring possibilities in) education. This course is an introduction to the education field and does not have prerequisites. Exploring Education Professions includes the history of education, an introduction to education professions, qualities and responsibilities of effective teachers, and student evaluation of aptitudes. The course will include exploration of early childhood, elementary, and secondary fields. A project-based approach that utilizes higher order thinking, communication, leadership, management, and fundamentals to college and career success is recommended. Direct, concrete mathematics and language arts proficiencies will be applied. Service learning, introductory laboratory/field experiences in a variety of education settings, and other authentic applications are strongly recommended. This course provides a foundation for continuing and postsecondary education in all career areas related to children, child development, and nurturing of children.

## 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 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 postsecondary 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 postsecondary 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.

# 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 postsecondary 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.

### 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 part of this course.

# 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 part of this course.

#### 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 part of this course.

# 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 part of this course.

### **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.

# 7157 Child and Adolescent Development CHLD ADL DEV

Child and Adolescent Development examines the physical, social, emotional, cognitive, and moral development of the child from 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.

## 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.

## 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.

### **Energy & Natural Resources**

## 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.

# 6126 Advanced Career & Technical Education, College Credit: Energy and Natural Resources ADV CTE CC

Advanced Career and Technical Education, College Credit is a course covering any CTE advanced course offered for credit by an accredited postsecondary 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.

### **Energy Technology**

#### 7203 Principles of Energy Technology PRIN ENER TECH

Principles of Energy Technology provides an overview of the electric and natural gas utility industry as well as the energy generation, transmission, and distribution infrastructure (commonly called the "largest machine in the world"), which forms the backbone of modern industry. The course covers topics such as 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. Students are given instruction on workplace safety and other related topics including: Material Safety Data Sheets (MSDS), procedures for working in confined spaces, 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.

## 7200 Fundamentals of Electricity and Motors FUN ELE MOTR

Fundamentals of Electricity and Motors introduces students to the basic electrical laws and principles pertaining to DC and AC circuits and provides a general understanding of the common types of electric motors. Electricity topics include current, voltage, resistance, power, inductance, capacitance, and transformers. The course stresses the use of standard electrical tests, electrical equipment, and troubleshooting procedures. Topics covered include electrical 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 motors are wired to obtain different speeds, and how capacitors affect a motor circuit are also covered. Safety procedures and practices are emphasized.

# 7198 Electrical Power Distribution ELC PWR DIS

Electrical Power Distribution provides 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.

### 7268 Electrical Line Capstone ELEC LN CAP

The Electrical Line Capstone builds upon the knowledge and skills developed in the Principles of Energy Technology, Fundamentals of Electricity and Motors, 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.

## 7269 Industrial Wind Capstone IND WIND CAP

The Industrial Wind Capstone builds upon the knowledge and skills developed in the Principles of Energy Technology, Fundamentals of Electricity and Motors, 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 cover 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.

## 7266 Natural Gas Capstone NATL GAS CAP

The Natural Gas Capstone builds upon the knowledge and skills developed in the Principles of Energy Technology, Fundamentals of Electricity and Motors, 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.

# 7365 Renewable Energy Alternatives Capstone RE ENGY ALT CAP

The Renewable Energy Alternative Capstone builds upon the knowledge and skills developed in the Principles of Energy Technology, Fundamentals of Electricity and Motors, and Electrical Power Distribution courses by developing advanced skills that students can apply in the field. Students enrolled in this course will participate in instruction and lab activities that cover 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.

### Natural Resources

#### 5180 Natural Resources NAT RSS

Natural Resources 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.

## 7270 Forestry and Wildlife Management FOR WILF MGMT

Forestry and Wildlife Management 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.

### 7271 Soil and Water Management SOIL WATR MGMT

Soil and Water Management 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.

## 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 other emerging technologies. Leadership development, supervised agricultural experiences, and career exploration opportunities are explored in this course.

### **Financial Services**

### Accounting

# 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.

### 7252 Accounting Capstone ACCT CAP

The Accounting Capstone course emphasizes 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 opportunity to participate in an intensive WBL experience and/or to complete additional coursework in using spreadsheets to solve accounting cases and to complete a postsecondary credential from ITCC or VU.

### Finance and Investment

### 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 the banking industry and the financial services provided by banks for individuals and businesses.

### 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 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.

### 7265 Finance and Investment Capstone FIN CAP

The Finance and Investment Capstone course includes content on credit and collections, real estate, business law and investing.

#### **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.

## 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.

### Health & Human Services

# 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 a health science principles course.

# 5286 Health Science Education: Special Topics HSE II ST

Health Science Education: 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 gualified clinical site, and is designed to give the student the opportunity to practice technical skills previously learned in the classroom while working under the direction of an 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 postsecondary 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 postsecondary program are also areas of focus. Participation in HOSA encourages the development of leadership, communication and career related skills, and opportunities for community service.

# 6138 Advanced Career & Technical Education, College Credit: Health and Human Services 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 postsecondary 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.

## 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.

### **Biomedical Sciences**

# 5218 Principles of Biomedical Sciences PRIN BIOMED

Principles of 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 determining 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.

#### 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.

#### 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.

# 5219 Biomedical Innovations BIO INN

Biomedical Innovations 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 postsecondary 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.

### **Central Service Technician**

# 7163 Central Service Technician Fundamentals CEN SER TEC FUN

The Central Service Technician Fundamentals 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.

# 7257 Central Service Technician Capstone CENT SRV TECH CAP

The 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 controlling infection and the spread of blood borne pathogens. Additionally, this course will provide students the opportunity to complete practical hours toward the hours required for the completion of the International Association of Healthcare Central Services Material Management Certification Exam.

### **Cosmetology and Barbering**

## 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, bacteriology, and sanitation. Successful completion of the course requires at least 375 Cosmetology studio hours.

## 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.

## 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.

## 7333 Advanced Barbering ADV BARB

Advanced Barbering is a course with a focus particularly 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.

# 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.

### **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 procedures and beginning dental terminology.

#### 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.

#### 7317 Advanced Dental Careers ADV DENT CAR

Advanced Dental Careers 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.

#### 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 Radiation, Health, and Safety which is the 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.

### Exercise Science/Physical Therapy

### 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 such as personal training, athletic training, and physical therapy.

#### 7321 Kinesiology KINESIO

Kinesiology students 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 and cardiovascular systems, theories on fitness programming, and injury avoidance in fitness environments.

#### 7322 Human Performance HUM PERF

Students in Human Performance 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.

## 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 devices for movement, educating patients and families, and basic assisting in cleaning treatment areas and clerical work.

#### 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 management within the the health and fitness industry.

### Human and Social Services

#### 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.

## 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.

# 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.

#### 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.

### **Pharmacy**

#### 7137 Principles of Pharmacy Tech PRIN PHARM

Principles of Pharmacy Tech is an introduction to the principles of pharmacotherapy including basic pharmacology, medication management, and safety. Students will be introduced to various systems of the human body and the most important drugs affecting these systems. Students will develop an understanding of drug classes and their mechanism of action when prescribed for a particular disease state. This course will also introduce the essential mathematical concepts and skills needed for pharmacy practice. Students will be introduced to metric, avoirdupois, and apothecary systems of measurements. Other calculation methods that will be studied are ratio and proportion, dimensional analysis, and calculations for compounded products.

#### 7167 Pharmacy Tech PHARM TECH

The Pharmacy Technician 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.

## 7310 Pharmacy Capstone PHARM TECH CAP

The Pharmacy Capstone course 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.

### Pre-Nursing / Healthcare Specialist

## 7168 Principles of Healthcare PRIN HLCR

Principles of Healthcare content examines 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.

#### 5274 Healthcare Fundamentals HEALTH FUND

Healthcare Fundamentals 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. Introduces cells, tissues, and human anatomy highlighting essential physiological principles through a systemic approach. Additionally, the course provides a general overview of basic concepts and terminology used in anatomy and physiology as applicable to health sciences and healthcare occupations. 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, abbreviations, signs, and symbols.

## 7166 Healthcare Specialist: CNA HC SPEC CNA

The Healthcare Specialist: CNA course 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 (CNA) training and for health care workers in long-term care facilities.

#### 7164 Certified Clinical Medical Assistant (CCMA) CERT CL MED AST

The Certified Clinical Medical Assistant (CCMA) 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 specimens and basic laboratory testing will be covered. The course prepares students for the administration of medication, venipuncture, ECG, and wound care and

provides a basic understanding of the clinical and administrative duties and responsibilities pertinent to medical offices. Instruction in medical correspondence and records, case histories of patients, filing, telephone procedures, appointment scheduling, receptionist duties, and processing mail is also included. Written, verbal, and nonverbal communications according to patient needs are covered as well as documentation and associated legal and ethical boundaries.

#### 7165 Emergency Medical Tech EMT

The Emergency Medical Technician (EMT) 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.

# 7255 Healthcare Specialist Capstone HC SPEC CAP

The Healthcare Specialist Capstone course will facilitate healthcare students' acquisition of additional knowledge and skills necessary to work in a variety of healthcare settings beyond a long term care facility including hospitals, doctors' 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 (CCMA) or Phlebotomy along with the coursework or in place of the coursework.

### Social and Community Services

#### 7276 Fundamentals of Human Services FUN HUMS

Fundamentals of Human Services examines key elements of effective delivery of human services. Topics of discussion include personal values, helping relationships, the impact of diversity, theories of helping, communication, problem-solving processes, crisis situations, abuse, and professional ethics. This course also provides training for identifying characteristics of a crisis and basic crisis intervention skills. Students will evaluate their own personal strengths and limitations and discuss the importance of professional development for the human and services social worker.

# 7278 Community Health Worker COM HLTH WK

Community Health Worker explores care coordination, case management, coaching, cultural competencies, Human Services Code of Ethics, professional development, and employment opportunities for community health workers and case managers. Examines background knowledge of the field of intellectual and developmental disabilities and issues pertaining to community social services. Presents practical and useful information regarding service availability and community resources for individuals and families living with disabilities.

## 7279 Social and Community Services Capstone SOC COMM CAPST

Social and Community Services Capstone introduces and develops interviewing skills. The course includes assessment strategies and treatment planning in addition to examining theories and research related to behavioral health and abnormal behavior in the healthcare setting. Primary emphasis will be on symptoms, communication strategies, and interaction with individuals. The course will explore fundamental concepts of diversity, disability awareness, addiction, and wellness as they apply to quality of life across the adult lifespan.

### Hospitality, Events, & Tourism

# 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.

# 6120 Advanced Career & Technical Education, College Credit: Hospitality, Events, and Tourism 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 postsecondary 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.

# 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.

### **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.

## 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

#### 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.

#### 7235 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

### 7233 Culinary 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.

### **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.

# 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 an opportunity for the Intermediate Hospitality student to acquire valuable field experience by working under the supervision of a Hospitality Manager. The students will keep a journal and prepare a report of their experiences at the end of the course.

### Nutrition Science

# 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).

### 7239 Nutrition Science Capstone NUT SCI CAP

This course offers practical experience in a healthcare 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. Students must complete 150 hours of field experience. (Students should have a site in mind prior to registering for this course--coordinator will assist.)

### Marketing, Sales, & Entrepreneurship

## 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.

# 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.

## 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.

#### 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 postsecondary 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.

### 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.

#### 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 including the appropriate business structure and organization, developing plans and strategies for the entrepreneurial venture, financing strategies, exploring growth opportunities, and successfully managing scarce resources. Students will explore buy/sell/lease negotiations, insurance, logistics, and technology use. By the end, students will be well-prepared to tackle the challenges of small business management and entrepreneurship.

#### 7147 Small Business Operation SM BUS OPER

Small Business Operations will focus on key marketing strategies particularly relevant to new ventures. Students will develop an understanding of marketing, advertising, social media, and branding. Upon successful completion of this course, the student should be able to 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; estimate capital requirements and risk, exit strategies; and prepare a budget for their business. 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.

### **Marketing and Sales**

#### 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.

#### 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.

#### 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.

### **Public Service & Safety**

# 6136 Advanced Career & Technical Education, College Credit: Public Service and 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 postsecondary 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.

### 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 an 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.

# 7190 Introduction to Public Service and Safety INTRO LAW PS

Introduction to Public Service and Safety introduces students to a variety of available careers and areas of interest including Fire Science, Criminal Justice, Homeland Security, Environmental Health and Safety, Emergency Medical Services, and Legal Services. The course is designed to help students create a career plan for the public service and safety sectors which includes certification requirements and hiring practices.

### **Criminal Justice**

# 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.

# 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. Students analyze 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. The course will allow students to demonstrate 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.

# 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 and 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.

### 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**: there may be age restrictions on work-based learning components.

### Fire and Rescue

# 7195 Principles of Fire and Rescue PRIN FIRE RES

Principles 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.

#### 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 firefighters 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.

#### 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.

### 7229 Fire and Rescue Capstone FIRE RES CAP

Fire and Rescue Capstone will prepare students to earn the EMT certification.

### Paralegal

#### 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 of Legal Assistants, and various other sets of rules of conduct created by paralegal associations.

## 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. The course 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.

## 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.

#### 7227 Paralegal Studies Capstone LEGAL ST CAP

A core component of Paralegal Studies Capstone 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.

### **Supply Chain & 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.

# 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 postsecondary 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.

# 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 an 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.

### 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.

#### 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. 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 will be gained. Students will also learn the installation of moldings, ornaments, and fasteners with emphasis on sheet metal analysis and safety.

# 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.

### 7380 Collision Repair Capstone COLL RPR CAP

Collision Repair Capstone 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.

### Automotive Services

## 7213 Principles of Automotive Services PRIN AUTO SER

Principles of Automotive Services 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.

#### 7205 Brake Systems BRK SYS

Brake Systems 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.

# 7212 Steering and Suspensions STEER SUSP

Steering and Suspensions will cover 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, the 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.

## 7375 Automotive Service Capstone AUTO SRV CAP

Automotive Service Capstone 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. The course will cover 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.

### **Aviation Maintenance**

#### 7372 Principles of Aviation Maintenance PRIN AVI MAI

Principles of Aviation Maintenance Regulations provides students with an understanding of Federal Aviation Administration (FAA) regulations as they pertain to aircraft technicians and the maintenance of aircraft. Topics of discussion will include aviation regulations, ground operations, weight and balance, and corrosion control.

## 7374 Aviation Maintenance Fundamentals AVI MAIN FUN

Aviation Maintenance Fundamentals provides students with an understanding of aircraft materials and operations. Topics of discussion will include ground operations and servicing, cleaning and corrosion control, and weight and balance. This course will include lab elements that allow students to build necessary skills associated with the above understandings of FAA Maintenance General Section subjects.

# 7376 Advanced Aviation Maintenance ADV AVI MAIN

Advanced Aviation Maintenance provides students with an understanding of aircraft drawings, electricity, and electronics systems. The course will also explore aircraft materials, hardware, processes, inspection concepts and techniques, and fluid lines and fittings. The course will include lab elements that allow students to build necessary skills associated with the above understandings of FAA Maintenance General Section subjects.

# 7378 Aviation Maintenance Capstone AVI MAIN CAP

The Aviation Maintenance Capstone will explore knowledge and risks elements associated with the FAA airframe section. Topics of discussion will be non-metallic structures, landing gear, flight controls, and inspection practices. This course will prepare students for completion of the FAA airframe mechanic certificate. This course will include lab elements that allow students to build necessary skills associated with the above understandings of FAA Maintenance General Section subjects.

### **Aviation Management**

# 7214 Principles of Aviation Management PRIN AVI MAN

Principles of Aviation Management provides students 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.

#### 7217 Private Pilot Theory PVT PLT THRY

In Private Pilot Theory students 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.

## 7207 Aviation Safety and Operations AVI SAF OPS

Aviation Safety and Operations provides 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.

## 7385 Aviation Management Capstone AVI MGMT CAP

Aviation Management Capstone is an introduction to the aviation weather service program. Course topics include the National Weather Service, Flight Service Stations, International Civil Aviation Organization, and analyzing and interpreting 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.

### **Commercial Driver**

# 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. **Note: Students are required to get a Department of Transportation Physical and Drug Screen.** 

#### 7387 Commercial Drivers Operation Fundamentals CDL OPER FUND

Commercial Drivers Operation Fundamentals introduces students to an orientation of the CDL industry, the Commercial Driver's License (CDL), 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, and space and speed management in order to prepare for the CDL A exam. **Note: This course must be taken concurrently with Advanced Commercial Drivers Operations**.

## 7388 Advanced Commercial Drivers Operations ADV CDL FUND

In Advanced Commercial Drivers Operations, 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). **Note: 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.

### **Diesel Services**

#### 7216 Principles of Diesel Technology PRIN DSL SERV

Principles of Diesel Technology 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 electrical diagnosis and repair in the automotive electrical industry. Students will study the fundamentals of electricity and automotive electronics.

## 7210 Diesel Steering and Brakes DSL STR BRKS

Diesel Steering and Brakes studies steering and suspension systems commonly used on modern tractors and trailers. Topics 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.

#### 7211 Diesel Transmissions DSL TRN ENGI REP

Diesel Transmissions explores theory, diagnosis, and overhaul procedures related to manual transmissions and differentials. Course topics include 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 examined along with service of removable cylinder liners.

#### 7221 Diesel Services Capstone DESL SRV CAP

Diesel Services Capstone 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.

# 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.

### **Supply Chain Management**

# 7155 Logistics and 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.

## 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.

## 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.

### Appendix A: 2025-2026 High School Course Changes

Several course descriptions throughout this document were minimally revised for additional clarity. The chart reflects those course codes, titles, and/or descriptions for which significant changes (i.e., updates, additions, deactivations) are implemented and which will go into effect beginning with the 2025-2026 school year. Guidance outlined on pages 137-138 of this document references important updates regarding CTE course(s) and clusters.

- Contact the Indiana Commission for Higher Education's <u>Office of Career and Technical</u> <u>Education</u> with questions related to the CTE courses and pathways.
- Contact IDOE's <u>Office of Teaching and Learning</u> with any other questions about this document.

Course Title	Course Code	Description of Update(s)
AP Seminar	0552	IDOE revised the course description to include a clarifying statement defining the course as appropriate for elective credit only compared to the new <i>1104 AP Seminar: English</i> course.
AP Psychology	1558	IDOE revised the course description, per College Board's recommendation.
AP Research	0551	IDOE revised the course description, per College Board's recommendation.
English as a New Language (English/Language Arts)	1012	IDOE revised the course titles (shown, left) and descriptions to clearly delineate between the focus on ELA (for ELA credit) and the focus on English language development (for World Language credit).
English as a New Language (English Language Development)	2188	
World Language Immersion	2304	IDOE revised the course description to remove references to dual language programs.
Cambridge International (CI) courses	Assorted	IDOE revised any remaining CI course titles from "Cambridge International" to "Cambridge Advanced" per Cambridge International staff.
Numerous Courses	Assorted	IDOE updated a variety of course titles throughout the entire document to include an "(A)", designating them as eligible to serve as "applied" courses for students pursuing Indiana's Alternate Diploma.
Introduction to Advanced Manufacturing	4796	CTE applied minor revisions to course descriptions.
Small Business Operation	7147	
New Venture Development	7148	
Business Management Capstone	7201	

Introduction to Computer Science and Digital Technology	4803	CTE revised the course title and description to reflect content that explores multiple digital technology pathways.
Healthcare Fundamentals	5274	CTE revised the course title and description to better reflect content covered in the course.
Semiconductor Fabrication Capstone	7098	CTE added the course description.
Introduction to Public Service and Safety	7190	CTE revised the course title and description to reflect course content exploring all programs of study within the career cluster.
Industrial Electrical Fundamentals	7102	CTE revised course prerequisites.
Industrial Maintenance Fundamentals	7104	
Mechatronics Systems	7106	
Career Exploration Internship	0530	CTE revised course hour requirements and descriptions to ensure consistency with current state policies related to work-based learning (WBL).
WBL Capstone	5974	
Cooperative Education	6162	
Technical Skills Development	7156	
Advanced Career & Technical Education, College Credit: Digital Technology	6022	CTE revised titles to reflect alignment of career clusters.
Advanced Career & Technical Education, College Credit: Hospitality, Events, and Tourism	6120	
Advanced Career & Technical Education, College Credit: Arts, Entertainment, and Design	6134	
Advanced Career & Technical Education, College Credit: Public Service and Safety	6136	
Advanced Career & Technical Education, College Credit: Health and Human Services	6138	

#### Additional Notes for CTE Courses:

- **Career Cluster Realignment:** CTE implemented several revisions (e.g., placement of programs of study, names of career clusters) following the release of a new National Career Cluster Framework. Review additional details on pages 137-138 of this document.
- Architecture, Engineering, and Construction Pathway: This pathway is being phased out in future years. Review details on pages 137-138 of this document.

New Course Title	New Course Code	Description of New Course
Dual Language Education: High School	2422	IDOE added this new course, code, title, and description specifically designed for high school students entering dual language programs.
AP Seminar: English	1104	IDOE added this new course code, title, and description based on the existing 0552 AP Seminar course title and description to allow for English credit upon course completion, per Indiana educator committee and College Board recommendations.
AP Physics C: Electricity and Magnetism	3087	IDOE added this new course code, title, and description to separate AP Physics: Electricity and Magnetism from AP Physics: Mechanics, per College Board's recommendation
AP Physics C: Mechanics	3089	IDOE added this new course code, title, and description to separate AP Physics C: Mechanics from AP Physics C: Electricity and Magnetism, per College Board's recommendation.
IB Environmental Systems and Societies HL	0556	IDOE added this new course code, title, and description for an existing International Baccalaureate (IB) course in response to educator feedback and in consultation with IB staff.
Introduction to Public Service	3524	IDOE added this new course to meet the Introduction to Public Service course requirement needed to attain the Enlistment Readiness Seal, part of Indiana's new diploma requirements.
Computing Foundations for a Digital Age	4565	CTE and IDOE designated this course to fulfill a legislated computer science course requirement for students beginning with the 2029 cohort.
Social and Community Services Capstone	7279	CTE added this course.
Youth Apprenticeship	6149	CTE added this course.
Deactivated Course Title	Deactivated Course Code	Rationale for Deactivation
AP Physics C	3088	IDOE deactivated this course and code to facilitate separation of AP Physics C: Electricity and Magnetism from AP Physics C: Mechanics, per IDOE's Office of Data Reporting and College Board's recommendations.
Introduction to Cosmetology	7175	CTE deactivated this course.