

# SEYMOUR HIGH SCHOOL

## COURSE DESCRIPTION GUIDE

2020-2021 Academic Year



### Administration

**Greg Prange, Principal**.....prangeg@scsc.k12.in.us  
**Talmadge Reasoner, Assistant Principal**.....reasonert@scsc.k12.in.us  
**Karla Bohle, Assistant Principal**.....bohlek@scsc.k12.in.us  
**Jeremy Richey, Dean of Students**.....richeyj@scsc.k12.in.us  
**Randy Fife, Director of Student Services**.....fifer@scsc.k12.in.us

### Student Services

**William Harmon, Counselor** (students last names A-E).....harmonw@scsc.k12.in.us  
**Nikki Storey, Counselor** (students last names F-L).....storeyn@scsc.k12.in.us  
**Randy Fife, Director of Student Services** (students last names M-Q).....fifer@scsc.k12.in.us  
**Sheana Harmon, Counselor** (students last names R-Z).....harmons@scsc.k12.in.us  
**Cathy Reasoner, College and Career Coordinator**.....reasonerc@scsc.k12.in.us  
**Ana DeGante, Director of English Learners Services**.....degantea@scsc.k12.in.us

### Administrative Staff

**Holly Cornn, Registrar**.....cornnh@scsc.k12.in.us  
**Sonja Followell, Administrative Assistant**.....followells@scsc.k12.in.us  
**Pat Myers, Administrative Assistant**.....myersp@scsc.k12.in.us  
**Carol Spivey, Administrative Assistant**.....spiveyc@scsc.k12.in.us  
**Amy Boyt, Attendance**.....boyta@scsc.k12.in.us

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## **ENGLISH/LANGUAGE ARTS**

### **ADVANCED ENGLISH/LANGUAGE ARTS, COLLEGE CREDIT (ADV ENG CC)**

*COURSE CODE: 1124*

2 CREDITS (1 PER SEMESTER)

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 postsecondary institution through an adjunct agreement with a secondary school.

- Grade Level: 12
- Prerequisites: English 9, English 10, English 11, or other literature, language, composition, and speech courses or teacher recommendation
- ***Students must have earned college credit in English 11 honors as a prerequisite to receive dual credit (see counselor for details)***
- Fulfills an English/Language Arts requirement for all diplomas

### **ADVANCED SPEECH AND COMMUNICATION (DUAL CREDIT)**

*COURSE CODE: 1078*

1 CREDIT

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

- Recommended Grade: 11, 12
- ***Students must have earned college credit in English 11 honors as a prerequisite to receive dual credit (see counselor for details)***
- Fulfills an English/Language Arts requirement for all diploma

### **ENGLISH 9/ACC ENGLISH 9**

*COURSE CODE: 1002*

2 CREDITS (1 PER SEMESTER)

English 9 is a study of language, literature, composition, and oral communication with a focus on exploring a wide-variety of genres and their elements. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to representative works of historical or cultural significance appropriate for Grade 9 in classic and contemporary literature balanced with nonfiction. Students write short stories, responses to literature, expository and argumentative/persuasive compositions, research reports, business letters, and technical documents. Students deliver grade-appropriate oral presentations and access, analyze, and evaluate online information.

- Prerequisites: None; Accelerated students placed at Teacher/Counselor Recommendation
- Fulfills an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### **ENGLISH 10/ACC ENGLISH 10**

*COURSE CODE: 1004*

2 CREDITS (1 PER SEMESTER)

English 10 is a study of language, literature, composition, and oral communication with a focus on exploring universal themes 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 appropriate for Grade 10 in classic and contemporary literature balanced with nonfiction. Students write short stories, responses to literature, expository and argumentative/persuasive compositions, research reports, business letters, and technical documents. Students deliver grade-appropriate oral presentations and access, analyze, and evaluate online information.

- Prerequisites: English 9; Accelerated students placed at Teacher/Counselor Recommendation
- Fulfills an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### **ENGLISH 11/ENGLISH 11 HONORS**

*COURSE CODE: 1006*

2 CREDITS (1 PER SEMESTER)

English 11 is a study of language, literature, composition, and oral communication with a focus on exploring characterization across universal themes in 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 appropriate for Grade 11 in classic and contemporary literature balanced with nonfiction. Students write narratives, responses to literature, academic essays, reflective compositions, historical investigation reports, resumes, and technical documents incorporating visual information in the form of pictures, graphs, and tables. Students write and deliver grade-appropriate multimedia presentations and access, analyze, and evaluate online information.

- Prerequisites: English 9 and English 10; honors students placed at Teacher/Counselor Recommendation
- **HONORS ONLY: Students must meet Ivy Tech Testing Requirements for PSAT, SAT, ACT or Accuplacer to receive dual credit (see counselor for details)**
- Fulfills an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### **ENGLISH 12**

*COURSE CODE: 1008*

2 CREDITS (1 PER SEMESTER)

English 12 is a study of language, literature, composition, and oral communication focusing on an exploration of point of view or perspective across a wide variety of genres. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to representative works of historical or cultural significance for Grade 12 in classic and contemporary literature balanced with nonfiction. Students write narratives, responses to literature, academic essays, reflective compositions, historical investigation reports, resumes and technical documents incorporating visual information in the form of pictures, graphs, and tables. Students write and deliver grade-appropriate multimedia presentations and access, analyze, and evaluate online information

- Grade Level: 12
- Prerequisites: English 9, English 10, and English 11
- Fulfills an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### **ENGLISH AS A NEW LANGUAGE**

*COURSE CODE: 1012*

2 CREDITS (1 PER SEMESTER)

English as a New Language is the study of language, literature, composition and oral communication for Limited English Proficient (LEP) students 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 text, 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.

- Grade Level: All grade levels, with intent to transition into the Core 40 English courses offered in grades 9-12.

- Fulfills an English/Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas (up to 4 credits)

## **FILM AS LITERATURE**

*COURSE CODE: 1034*

1 CREDIT

Film as Literature 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.

- Grade Level: 11-12
- Prerequisites: English 9, English 10, or teacher recommendation
- Fulfills an English Language Arts requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **STUDENT PUBLICATIONS (NEWSPAPER/YEARBOOK)**

*COURSE CODE: 1086*

2 CREDITS (1 PER SEMESTER)

Student Publications (Yearbook/Newspaper), is the continuation of the study of journalism. Students demonstrate their ability to do journalistic writing and design for high school publications, including school newspapers and yearbooks, and a variety of 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 publications or media staffs so that they may prepare themselves for career paths in journalism, communications, writing, or related fields.

- Recommended Grade Level: Grades 9, 10, 11, or 12
- Prerequisites: Teacher Recommendation and Application required for consideration
- The nature of this course allows for successive semesters of instruction at advanced levels. May be offered over three- or four-years by subtitling the course Beginning, Intermediate, or Advanced
- Counts as an Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diploma
- Counts as a fine arts credit for the Core 40 with Academic Honors diploma

## **MATHEMATICS**

### **ALGEBRA I**

*COURSE CODE: 2520*

2 CREDITS (1 PER SEMESTER)

Algebra I formalizes and extends the mathematics students learned in the middle grades. Five critical areas comprise Algebra I: Relations and Functions; Linear Equations and Inequalities; Quadratic and Nonlinear Equations; Systems of Equations and Inequalities; and Polynomial Expressions. The 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, and students engage in methods for analyzing, solving, and using quadratic functions. The Mathematical Practice Standards apply throughout each course and, together with the content 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.

- Fulfills the Algebra I/Integrated Mathematics I requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- Qualifies as a quantitative reasoning course

**ALGEBRA II/ACCELERATED ALGEBRA II***COURSE CODE: 2522*

2 CREDITS (1 PER SEMESTER)

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 Mathematical Practice Standards apply throughout each course and, together with the content 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.

- Prerequisite: Algebra I
- Fulfills the Algebra II/Integrated Mathematics III requirement for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas and counts as a Mathematics Course for the General Diploma
- Qualifies as a quantitative reasoning course

**ALGEBRA LAB***COURSE CODE: 2516*

2 CREDITS (1 PER SEMESTER)

Algebra I Lab is a mathematics support course for Algebra I. Algebra I Lab is taken while students are concurrently enrolled in Algebra I. This course provides students with additional time to build the foundations necessary for high school math courses, while concurrently having access to rigorous, grade level appropriate courses. The five critical areas of Algebra I Lab align with the critical areas of Algebra I: Relationships between Quantities and Reasoning with Equations; Linear and Exponential Relationships; Descriptive Statistics; Expressions and Equations; and Quadratic Functions and Modeling. However, whereas Algebra I contains exclusively grade-level content, Algebra I Lab combines standards from high school courses with foundational standards from the middle grades.

- Recommended Grade: 9, 10, 11, 12
- Counts as a Mathematics course for the General Diploma only or as an elective for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- Algebra I Lab is designed as a support course for Algebra I. As such, a student taking Algebra I Lab must also be enrolled in Algebra I during the same academic year.

**ANALYTICAL ALGEBRA II***COURSE CODE: 2524*

2 CREDITS (1 PER SEMESTER)

Analytical Algebra II builds on previous work with linear, quadratic and exponential functions and extends to include polynomial, rational, radical, logarithmic, and other functions. Data analysis, statistics, and probability content should be included throughout the course, as students collect and use univariate and bivariate data to create and interpret mathematical models. Additionally, Analytical Algebra II should focus on the application of mathematics in various disciplines including business, finance, science, career and technical education, and social sciences, using technology to model real-world problems with various functions, using and translating between multiple representations. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. This course is not recommended for students interested in pursuing a STEM degree at a four-year institution; this course does not prepare students for Pre-Calculus/Trigonometry.

- Recommended Grade Level: 11, 12
- Recommended Prerequisite: Algebra I
- Credits: 2 semester course, 1 credit per semester
- Fulfills the Algebra II/Integrated Mathematics III requirement for all diplomas; if students use this course to fulfill this credit, the parent and student must sign a consent form notifying the parent and the student that enrollment in Analytical Algebra II may affect the student's ability to attend a particular post-secondary educational institution or enroll in a particular course at a particular post-secondary educational institution because Analytical Algebra II may not align with academic requirements established by the postsecondary educational institution

## **AP COMPUTER SCIENCE**

*COURSE CODE: 4570*

2 CREDITS (1 PER SEMESTER)

AP Computer Science A 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 Computer Science A is equivalent to a first-semester, college-level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. The curriculum for AP Computer Science A is compatible with many CS1 courses in colleges and universities.

- Recommended Grade Level: 11,12
- Recommended Prerequisites: Digital Citizenship, Algebra I, and Algebra II
- Counts as a Mathematics or an Elective for all diplomas
- Qualifies as a quantitative reasoning course

## **BUSINESS MATH**

*COURSE CODE: 4512*

2 CREDITS (1 PER SEMESTER)

Business Math is a business 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.

- Grade Level: 11-12
- Prerequisite: Algebra I
- Fulfills a ***mathematics requirement for the General Diploma only*** or counts as an Elective or Directed Elective for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- Qualifies as a quantitative reasoning course

## **GEOMETRY/ACCELERATED GEOMETRY**

*COURSE CODE: 2532*

2 CREDITS (1 PER SEMESTER)

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. Six critical areas comprise the *Geometry* course: Congruency and Similarity; Measurement; Analytic Geometry; Circles; and Polyhedra. Close attention should be paid to the introductory content for the Geometry conceptual category

found in the high school INCC The Mathematical Practice Standards apply throughout each course and, together with the content 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.

- Prerequisite: Algebra I; Accelerated students placed upon teacher/counselor recommendation
- Fulfills the Geometry/Integrated Mathematics II requirement for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas and counts as a Mathematics Course for the General Diploma

### ***Advanced Mathematics***

#### **AP CALCULUS (DUAL CREDIT)**

**COURSE CODE: 2562**

**2 CREDITS (1 PER SEMESTER)**

Calculus AB, Advanced Placement is a course based on content established by the College Board. Calculus AB is primarily concerned with developing the students' understanding of the concepts of calculus and providing experience with its methods and applications. The course emphasizes a multi-representational approach to calculus, with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. The connections among these representations also are important. Topics include: (1) functions, graphs, and limits; (2) derivatives; and (3) integrals. Technology should be used regularly by students and teachers to reinforce the relationships among the multiple representations of functions, to confirm written work, to implement experimentation, and to assist in interpreting results.

- Recommended Grade Level: Grades 11 or 12
- Prerequisite: Pre-calculus/Trigonometry
- ***Students must meet Ivy Tech Testing Requirements for PSAT, SAT, ACT or Accuplacer to receive dual credit (see counselor for details)***
- Counts as a Mathematics Course for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

#### **AP STATISTICS**

**COURSE CODE: 2570**

**2 CREDITS (1 PER SEMESTER)**

Statistics, Advanced Placement is a course based on content established by the College Board. The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Topics include: (1) exploring data: describing patterns and departures from patterns (2) sampling and experimentation: planning and conducting a study, (3) anticipating patterns: exploring random phenomena using probability and simulation, and (4) statistical inference: estimating population parameters and testing hypotheses. The use of graphing calculators and computer software is required.

- Recommended Grade Level: Grades 11 or 12
- Prerequisite: Algebra II
- Counts as a Mathematics Course for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

#### **FINITE MATHEMATICS (DUAL CREDIT)**

**COURSE CODE: 2530**

**2 CREDITS (1 PER SEMESTER)**

Finite Mathematics is an umbrella of mathematical topics. It is a course designed for students who will undertake higher-level mathematics in college that may not include calculus. Topics include: (1) counting techniques, (2) matrices, (3) recursion, (4) graph theory, (5) social choice, (6) linear programming, and (7) game theory. Technology, such as computers and graphing calculators, should be used frequently.

- Prerequisite: Algebra II and Geometry



- ***Students must meet Ivy Tech Testing Requirements for PSAT, SAT, ACT or Accuplacer to receive dual credit (see counselor for details)***
- Counts as a Mathematics Course for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### **PRE-CALCULUS: ALGEBRA (DUAL CREDIT)**

**COURSE CODE: 2564**

**2 CREDITS (1 PER SEMESTER)**

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 and Equations; Sequences and Series; and Conics. The course is designed for students who expect math to be a major component of their future college and career experiences, and as such it is designed to provide students with strong foundations for calculus and other higher-level math courses. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Grade: 11, 12
- Required Prerequisites: Accelerated Algebra II and Accelerated Geometry
- ***Students must meet Ivy Tech Testing Requirements for PSAT, SAT, ACT or Accuplacer to receive dual credit (see counselor for details)***
- Counts as a Mathematics course for all diplomas

### **PRE-CALCULUS: TRIGONOMETRY (DUAL CREDIT)**

**COURSE CODE: 2566**

**2 CREDITS (1 PER SEMESTER)**

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 also advance their understanding of imaginary numbers through an investigation of complex numbers and polar coordinates. A strong understanding of complex and imaginary numbers is a necessity for fields such as engineering and computer programming. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Grade: 11, 12
- Required Prerequisites: Pre-calculus: algebra
- ***Students must meet Ivy Tech Testing Requirements for PSAT, SAT, ACT or Accuplacer to receive dual credit (see counselor for details)***
- Counts as a Mathematics course for all diplomas

### **PROBABILITY AND STATISTICS**

**COURSE CODE: 2546**

**1 CREDIT (2<sup>nd</sup> SEMESTER)**

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 calculators and computer programs is encouraged. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Grade Level: 11, 12
- Recommended Prerequisites: Algebra II or Integrated Mathematics III
- Counts as a Mathematics Course for all diplomas

## **SCIENCE**

### **CHEMISTRY I**

*COURSE CODE: 3064*

2 CREDITS (1 PER SEMESTER)

Chemistry I is a course based on the following core topics: properties and states of matter; atomic structure; bonding; chemical reactions; solution chemistry; behavior of gases, and organic chemistry. Students enrolled in Chemistry I compare, contrast, and synthesize useful models of the structure and properties of matter and the mechanisms of its interactions. Instruction should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation by designing and conducting investigations guided by theory and by evaluating and communicating the results of those investigations according to accepted procedures.

- Grade Level: 10-12
- Recommended Prerequisite: Algebra II (can be taken concurrently) or Teacher/Counselor Recommendation
- Fulfills the requirement for physical science for the General diploma. Fulfills Chemistry credit for Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas
- Qualifies as a quantitative reasoning course

### **BIOLOGY I/ACCELERATED BIOLOGY I**

*COURSE CODE 3024*

2 CREDITS (1 PER SEMESTER)

Biology I is a course based on the following core topics: cellular chemistry, structure and reproduction; matter cycles and energy transfer; interdependence of organisms; molecular basis of heredity; genetics and evolution. Instruction should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation by designing and conducting investigations guided by theory and by evaluating and communicating the results of those investigations according to accepted procedures.

- Grade Level: 10; 9-10 for ACC Biology
- Prerequisites: None, teacher/counselor recommendation for Accelerated Biology
- Fulfills the life science requirement for the General diploma, Fulfills Biology credit for Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### **EARTH AND SPACE SCIENCE I**

*COURSE CODE: 3044*

2 CREDITS (1 PER SEMESTER)

Earth and Space Science I is a course focused on the following core topics: study of the earth's layers; atmosphere and hydrosphere; structure and scale of the universe; the solar system and earth processes. Students analyze and describe earth's interconnected systems and examine how earth's materials, landforms, and continents are modified across geological time. Instruction should focus on developing student understanding that scientific knowledge is gained from

observation of natural phenomena and experimentation by designing and conducting investigations guided by theory and by evaluating and communicating the results of those investigations according to accepted procedures.

- Grade Level:11-12
- Credits: A two credit course
- Fulfills the earth and space science requirement for the General Diploma. Fulfills Core 40 science credit for Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### **INTEGRATED CHEMISTRY-PHYSICS**

*COURSE CODE: 3108*

2 CREDITS (1 PER SEMESTER)

Integrated Chemistry-Physics is a course focused on the following core topics: motion and energy of macroscopic objects; chemical, electrical, mechanical and nuclear energy; properties of matter; transport of energy; magnetism; energy production and its relationship to the environment and economy. Instruction should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation by designing and conducting investigations guided by theory and by evaluating and communicating the results of those investigations according to accepted procedures

- Grade Level: 9
- Fulfills the physical science requirement for the General diploma. Fulfills the 2 credit requirement for Chemistry I, Physics I, or Integrated Chemistry and Physics towards the Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas

### ***Advanced Science***

#### **AP BIOLOGY (DUAL CREDIT)**

*COURSE CODE: 3020*

2 CREDITS (1 PER SEMESTER)

Biology, Advanced Placement is a course based on the content established by the College Board. The major themes of the course include: The process of evolution drives the diversity and unity of life, Biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain dynamic homeostasis, Living systems store, retrieve, transmit and respond to information essential to life processes, Biological systems interact, and these systems and their interactions possess complex properties.

- Recommended Grade Level: 11-12
- Recommended Prerequisite: Biology I and Accelerated Chemistry
- ***Students must meet Ivy Tech Testing Requirements for PSAT, SAT, ACT or Accuplacer to receive dual credit (see counselor for details)***
- Counts as a Science Course for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- Qualifies as a quantitative reasoning course

#### **AP CHEMISTRY (DUAL CREDIT)**

*COURSE CODE: 3060*

2 CREDITS (1 PER SEMESTER)

Chemistry, Advanced Placement, is a course based on the content established by the College Board. 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.

- Grade Level: 11-12
- Prerequisite: Biology, Accelerated Chemistry Algebra II, Pre-calculus/Trigonometry

- Counts as a Science Course for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- ***Students must meet Ivy Tech Testing Requirements for PSAT, SAT, ACT or Accuplacer to receive dual credit (see counselor for details)***
- Qualifies as a quantitative reasoning course

### **AP ENVIRONMENTAL SCIENCE (DUAL CREDIT)**

*COURSE CODE: 3012*

2 CREDITS (1 PER SEMESTER)

Environmental Science, Advanced Placement is a course based on content established by the College Board. 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.

- Grade Level: 11-12
- Recommended Prerequisite: Biology and Accelerated Chemistry
- Counts as a Science Course for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- Qualifies as a quantitative reasoning course

### **AP PHYSICS**

*COURSE CODE: 3080*

2 CREDITS (1 PER SEMESTER)

Physics, Advanced Placement is equivalent to a first-semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; mechanical waves and sound. It will also introduce electric circuits.

- Recommended Grade Level: 11-12
- Prerequisite: Biology & Accelerated Chemistry
- Counts as a Science Course for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- Qualifies as a quantitative reasoning course

### **ANATOMY AND PHYSIOLOGY (DUAL CREDIT)**

*COURSE CODE: 5276*

2 CREDITS (1 PER SEMESTER)

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. Introduces students to the cell, which is the basic structural and functional unit of all organisms, and covers tissues, integument, skeleton, 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.

- Grade Level: Grade 11- 12
- Prerequisites: Biology
- ***Students must meet Ivy Tech Testing Requirements for PSAT, SAT, ACT or Accuplacer to receive dual credit (see counselor for details)***
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

- Fulfills a Core 40 Science course requirement for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas or counts as an Elective or Directed Elective for any diploma

## **SOCIAL STUDIES**

### **AP UNITED STATES HISTORY (DUAL CREDIT)**

*COURSE CODE: 1562*

2 CREDITS (1 PER SEMESTER)

United States History, Advanced Placement is a course based on the content established by the College Board. The course has a chronological frame from 1492 to the present and focuses on multiple causation and change in United States history over time. A variety of historical themes are examined in order to place the history of the United States into larger analytical contexts. Students are expected to analyze and interpret primary sources and develop awareness of multiple interpretations of historical issues in secondary sources. Historical events and issues in U.S. history are to be examined from multiple perspectives.

- Grade Level: Grades 11 or 12
- Recommended Prerequisites: Teacher/counselor recommendation
- ***Students must meet Ivy Tech Testing Requirements for PSAT, SAT, ACT or Accuplacer to receive dual credit (see counselor for details)***
- Fulfills the US History requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas or counts as an Elective for any diploma

### **AP WORLD HISTORY MODERN**

*COURSE CODE: 1612*

2 CREDITS (1 PER SEMESTER)

AP World History Modern AP World History Modern is designed to be the equivalent of a two- semester introductory college or university world history course. According to the College Board 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; making historical comparisons; utilizing reasoning about contextualization, causation, and continuity and change over time; and developing historical arguments. The course provides five themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction between humans and the environment; development and interaction of cultures; state building, expansion, and conflict; creation, expansion, and interaction of economic systems; and development and transformation of social structures.

- Recommended Grade: 10
- Recommended Prerequisites: none. Students should be able to read a college level textbook and write grammatically correct, complete sentences.
- Fulfills the Geography History of the World/World History and Civilization graduation requirement for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### **ECONOMICS**

*COURSE CODE: 1514*

1 CREDIT

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 will 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.

- Grade Level: 12
- Fulfills the Economics requirement for the Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas, a Social Studies requirement for the General Diploma, or counts as an Elective for any diploma
- Qualifies as a quantitative reasoning course

## **GEOGRAPHY AND HISTORY OF THE WORLD**

*COURSE CODE: 1570*

2 CREDITS (1 PER SEMESTER)

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 the 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 21<sup>st</sup> Century.

- Grade Level: 9-10
- Recommended Prerequisites: None
- Fulfills a Social Studies requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas or counts as an Elective for any diploma

## **PSYCHOLOGY**

*COURSE CODE: 1532*

1 CREDIT

Psychology is the scientific study of mental processes and behavior. The course is divided into eight content areas. History & 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 looks at all the changes through one's life; physical, cognitive, as well as emotional, social and moral development. Cognition focuses on learning, memory, information processing, and language development. Personality and Assessment looks at 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.

- Grade Level: 11-12 or Grade 10 with counselor permission
- Counts as an Elective for the General and Core 40 diplomas

## **SOCIOLOGY**

*COURSE CODE: 1534*

1 CREDIT

Sociology allows students to study human social behavior from a group perspective. The sociological perspective is a method of studying recurring patterns in people's attitudes and actions and how these patterns vary across time, cultures, and in social settings and groups. Students describe the development of sociology as a social science and identify methods

of research. Through research methods such as scientific inquiry students examine society, group behavior, and social structures. The influence of culture on group behavior is addressed through institutions such as the family, religion, education, economics, community organizations, government, and political and social groups. The impact of social groups and institutions on group and individual behavior and the changing nature of society will be examined. Influences on group behavior and social problems are included in the course. Students also analyze the role of individuals in the community and social problems in today's world.

- Grade Level: Grades 11-12 or Grade 10 with counselor permission
- Counts as an Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **UNITED STATES GOVERNMENT**

*COURSE CODE: 1540*

1 CREDIT

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. How the United States interacts with other nations and the government's role in world affairs will be included. Using primary and secondary resources, students will articulate, evaluate, and defend positions on political issues. As a result, they will 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.

- Grade Level: 12
- Fulfills the Government requirement for the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas or counts as an Elective for any diploma

## **UNITED STATES HISTORY**

*COURSE CODE: 1542*

2 CREDITS (1 PER SEMESTER)

United States History is a two-semester course that builds upon concepts developed in previous studies of U.S. History and emphasizes national development from the late nineteenth century into the twenty-first century. After reviewing fundamental themes in the early development of the nation, students are expected to identify and review significant events, persons, and movements in the early development of the nation. The course then gives major emphasis to the interaction of key events, people, and political, economic, social, and cultural influences in national developments from the late nineteenth century through the present as they relate to life in Indiana and the United States. Students are expected to trace and analyze chronological periods and examine the significant themes and concepts in U.S. History. Students develop historical thinking and research skills and use primary and secondary sources to explore topical issues and to understand the cause for changes in the nation over time.

- Recommended Grade Level: 10-12
- Fulfills the US History requirement of the General, Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas

## **WORLD LANGUAGES**

### **FRENCH I**

*COURSE CODE: 2020*

2 CREDITS (1 PER SEMESTER)

French I 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.

- Grade Level: 9-12
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as a Directed Elective or Elective for any diploma

## **FRENCH II**

*COURSE CODE: 2022*

2 CREDITS (1 PER SEMESTER)

French II 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.

- Grade Level: 9-12
- Prerequisites: Completion of French I with a "C-" or higher; teacher recommendation
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as a Directed Elective or Elective for any diploma

## **FRENCH III**

*COURSE CODE: 2024*

2 CREDITS (1 PER SEMESTER)

French III 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.

- Grade Level: 9-12



- Prerequisites: Completion of French II with a “C-” or higher; teacher recommendation
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as a Directed Elective or Elective for any diploma

## **FRENCH IV**

*COURSE CODE: 2026*

2 CREDITS (1 PER SEMESTER)

French IV 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.

- Grade Level: 10-12
- Prerequisites: Completion of French III with a “C-” or higher; teacher recommendation
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as a Directed Elective or Elective for any diploma

## **LATIN I**

*COURSE CODE: 2080*

2 CREDITS (1 PER SEMESTER)

Latin I 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.

- Grade Level: 9-12
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as a Directed Elective or Elective for any diploma

## **LATIN II**

*COURSE CODE: 2082*

2 CREDITS (1 PER SEMESTER)

Latin II builds upon effective strategies for Latin language learning by encouraging the use of the language and cultural understanding for self-directed purposes. This course emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and comprehending longer written or oral directions. Students will address the presentational mode by presenting prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Though interpersonal communication is not an explicit emphasis of this course, opportunities may be provided for students to make and respond to requests and questions in expanded contexts,

participate independently in brief conversations on familiar topics, and write cohesive passages with greater independence and using appropriate formats. Additionally, students will describe the practices, products and perspectives of classical Roman culture; report on basic family and social practices of the target culture; and describe contributions from the target culture. This course further emphasizes making connections across content areas and the application of understanding Latin language and culture outside of the classroom.

- Grade Level: 9-12
- Prerequisites: Completion of Latin I with a “C-” or higher; teacher recommendation
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as a Directed Elective or Elective for any diploma

### **LATIN III**

*COURSE CODE: 2084*

**2 CREDITS (1 PER SEMESTER)**

Latin III 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.

- Grade Level: 9-12
- Prerequisites: Completion of Latin II with a “C-” or higher; teacher recommendation
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as a Directed Elective or Elective for any diploma

### **LATIN IV**

*COURSE CODE: 2086*

**2 CREDITS (1 PER SEMESTER)**

Latin IV 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 presentational 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.

- Grade Level: 10-12
- Prerequisites Completion of Latin III with a “C-” or higher; teacher recommendation

- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as a Directed Elective or Elective for any diploma

### **SPANISH I**

*COURSE CODE: 2120*

2 CREDITS (1 PER SEMESTER)

Spanish I 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.

- Grade Level: 9-12
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as a Directed Elective or Elective for any diploma

### **SPANISH II**

*COURSE CODE: 2122*

2 CREDITS (1 PER SEMESTER)

Spanish II 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.

- Grade Level: 9-12
- Prerequisites: Completion of Spanish I with a "C-" or higher; teacher recommendation
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as a Directed Elective or Elective for any diploma

### **SPANISH III**

*COURSE CODE: 2124*

2 CREDITS (1 PER SEMESTER)

Spanish III 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.

- Grade Level: 9-12
- Prerequisites: Completion of Spanish I with a "C-" or higher; teacher recommendation
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma or counts as a Directed Elective or Elective for any diploma

## **SPANISH IV**

**COURSE CODE: 2126**

**2 CREDITS (1 PER SEMESTER)**

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.

- Grade Level: 9-12
- Prerequisites: Completion of Spanish III with a "C-" or higher; teacher recommendation
- Fulfills a World Language requirement for the Core 40 with Academic Honors or counts as a Directed Elective or Elective for any diploma

## **HEALTH AND PHYSICAL EDUCATION**

***All Students are expected to have 2 Basic PE credits (Phys Ed I & II) and 1 Health credit completed by the end of grade 10. PE requirements may be met through athletics, cheerleading, or band by completing the ASPE form (bowling and archery do NOT count for alternate PE credit).***

### **ELECTIVE PHYSICAL EDUCATION (MULTIPLE DISCIPLINES)**

**COURSE CODE: 3560**

- ELECTIVE PE LIFETIME FITNESS
- ELECTIVE PE AQUATICS
- ELECTIVE PE WEIGHT TRAINING

Elective 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 cardiorespiratory 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. It 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.

- Grade Level: 9 – 12
- Counts as an Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **HEALTH & WELLNESS EDUCATION**

*COURSE CODE: 3506*

1 CREDIT

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

- Recommended Grade Level: 10
- Fulfills the Health & Wellness requirement for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors diplomas

## **MEDICAL TERMINOLOGY (DUAL CREDIT)**

*COURSE CODE: 5274*

2 CREDITS (1 PER SEMESTER)

Medical Terminology prepares students with language skills necessary for effective, independent use of health and medical reference materials. It includes the study of health and medical abbreviations, symbols, and Greek and Latin word part meanings, all taught within the context of body systems. This course builds skills in pronouncing, spelling, and defining new words encountered in verbal and written information in the healthcare industry. Students have the opportunity to acquire essential skills for accurate and logical communication, and interpretation of medical records. Emphasis is on forming a foundation of a medical vocabulary including; appropriate and accurate meaning, spelling, and pronunciation of medical terms, and abbreviations, signs, and symbols.

- Recommended Grade Level: 11, 12
- ***Students must meet Ivy Tech Testing Requirements for PSAT, SAT, ACT or Accuplacer to receive dual credit (see counselor for details)***
- Recommended Prerequisites: None
- Counts as a Directed Elective or Elective for all diplomas

## **PHYSICAL EDUCATION I**

*COURSE CODE: 3542*

1 CREDIT

Physical Education I focuses on instructional strategies through a planned, sequential, and comprehensive physical education curriculum which provide students with opportunities to actively participate in at least four of the following: team sports; dual sport activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics;

gymnastics; and dance, all which are within the framework of lifetime physical activities and fitness. Ongoing assessment includes both written and performance-based skill evaluation.

- Grade Level: 9-10
- Fulfills part of the Physical Education requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **PHYSICAL EDUCATION II**

*COURSE CODE: 3544*

1 CREDIT

Physical Education II focuses on instructional strategies through a planned, sequential, and comprehensive physical education curriculum which provide students with opportunities to actively participate in four of the following that were not in Physical Education I: team sports; dual sport activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance, all which are within the framework of lifetime physical activities and fitness. Ongoing assessment includes both written and performance-based skill evaluation.

- Grade Level: 9 – 10
- Fulfills part of the Physical Education requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **ENGINEERING AND TECHNOLOGY EDUCATION**

### **ADVANCED MANUFACTURING I - OWL MANUFACTURING YEAR 1 (DUAL CREDIT)**

*COURSE CODE: 5608*

4 CREDITS (2 PER SEMESTER)

Advanced Manufacturing I is a course that includes classroom and laboratory experiences in two broad areas: Industrial Technology/Software Controls and Manufacturing Trends. Domains include safety and impact, electricity, manufacturing essentials, fluid power principles, mechanical principles, lean manufacturing, and careers in advanced manufacturing. Hands-on projects and team activities will allow students to apply learning on the latest industry technologies. Students take this course with the goal of being a skilled machine operator, repair technician, or working in management at any company that produces goods and services using advanced manufacturing techniques. Work-based learning experiences and industry partnerships are highly encouraged for an authentic industry experience.

- Recommended Grade Level: 10, 11, 12
- Recommended Prerequisites: Introduction to Advanced Manufacturing
- Counts as a Directed Elective or Elective for all diplomas

### **ADVANCED MANUFACTURING II - OWL MANUFACTURING YEAR 2**

*COURSE CODE: 5606*

4 CREDITS (2 PER SEMESTER)

Advanced Manufacturing II builds on classroom and lab experiences students experienced in Advanced Manufacturing I. Domains include safety and impact, drafting principles, manufacturing programming, CAD/CAM and CNC technologies, automation and robotics, and careers in advanced manufacturing. Hands-on projects and team activities will allow students to apply learning on the latest industry technologies. Students continue this course with the goal of being a skilled machine operator, repair technician, or management at any company that produces goods and services using advanced manufacturing techniques. Work-based learning experiences and industry partnerships are highly encouraged for an authentic industry experience.

- Recommended Grade Level: 11 or 12
- Required Prerequisites: Advanced Manufacturing I (Owl Manufacturing I)
- Counts as a Directed Elective or Elective for all diplomas

- Qualifies as a quantitative reasoning course

### **CIVIL ENGINEERING AND ARCHITECTURE—PLTW (DUAL CREDIT)**

*COURSE CODE: 4820*

2 CREDITS (1 PER SEMESTER)

Civil Engineering and Architecture introduces students to the fundamental design and development aspects of civil engineering and architectural planning activities. Application and design principles will be used in conjunction with mathematical and scientific knowledge. Computer software programs should allow students opportunities to design, simulate, and evaluate the construction of buildings and communities. During the planning and design phases, instructional emphasis should be placed on related transportation, water resource, and environmental issues. Activities should include the preparation of cost estimates as well as a review of regulatory procedures that would affect the project design.

- Recommended Grade Level: Grade 11-12
- Prerequisites: Introduction to Engineering Design AND Principles of Engineering
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- ***Students must have received college credit in Introduction to Engineering to be eligible for dual credit in Principles of Engineering***
- Qualifies as a Quantitative Reasoning course

### **CONSTRUCTION TRADES I**

*COURSE CODE: 5580*

4 CREDITS (2 PER SEMESTER)

Construction Trades I classroom and laboratory experiences involve the formation, installation, maintenance, and repair of buildings, homes, and other structures. A history of construction, future trends and career options, reading technical drawings and transforming those drawings into physical structures are covered. The relationship of views and details, interpretation of dimension, transposing scale, tolerance, electrical symbols, sections, materials list, architectural plans, geometric construction, three dimensional drawing techniques, and sketching will be presented as well as elementary aspects of residential design and site work. Areas of emphasis will include print reading and drawing, room schedules and plot plans. Students will examine the design and construction of floor and wall systems and develop layout and floor construction skills. Blueprints and other professional planning documents will also be covered. Students will develop an understanding and interpretation of the Indiana Residential Code for one and two-family dwellings and safety practices including Occupational Safety and Health Administration's Safety & Health Standards for the construction industry.

- Recommended Grade Level: 10, 11, 12
- Recommended Prerequisites: Introduction to Construction
- Counts as a Directed Elective or Elective for all diplomas

### **CONSTRUCTION TRADES II**

*COURSE CODE: 5578*

4 CREDITS (2 PER SEMESTER)

Construction Trades II builds on the formation, installation, maintenance, and repair skills learned in Construction Trades I. Information on materials, occupations, and professional organizations within the industry will be covered. Students will develop basic knowledge, skills, and awareness of interior trim and the installation of drywall, moldings, interior doors, kitchen cabinets, and baseboard moldings. Students will also develop exterior finishing competencies. The course includes instruction on the installation of cornices, windows, doors and various types of sidings currently used in industry. Studies will also focus on the design and construction of roof systems and the use of framing squares for traditional rafter and truss roofing.



- Required Prerequisites: Construction Trades I
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as a quantitative reasoning course.

### **DIGITAL ELECTRONICS—PLTW (DUAL CREDIT)**

**COURSE CODE:** 4826

**2 CREDITS (1 PER SEMESTER)**

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.

- Grade Level: Grade 11-12
- Recommended Prerequisites: Introduction to Engineering Design, Principles of Engineering
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- ***Students must meet Ivy Tech Testing Requirements for PSAT, SAT, ACT or Accuplacer to receive dual credit (see counselor for details)***
- Qualifies as a quantitative reasoning course

### **INTRODUCTION TO ADVANCED MANUFACTURING AND LOGISTICS**

**COURSE CODE:** 4796

**2 CREDITS (1 PER SEMESTER)**

*Introduction to Advanced Manufacturing and Logistics* focuses on manufacturing systems and their relationship to society, individuals, and the environment. Students apply the skills and knowledge of using modern manufacturing processes to obtain resources and change them into industrial materials, industrial products and consumer products. Students investigate the properties of engineered materials and study major types of material processes. After gaining a working knowledge of these materials, students are introduced to advanced manufacturing, logistics, and business principles that are utilized in today's advanced manufacturing industry. Students gain a basic understanding of tooling, electrical skills, operation skills, inventory principles, chart and graph reading and MSSC concepts. There is also an emphasis placed on the flow process principles, material movement, safety, and related business operations. Students have the opportunity to develop the characteristics employers seek as well as skills that will help them in future endeavors.

- Recommended Grade Level: 10, 11
- Recommended Prerequisites: none
- Counts as a Directed Elective or Elective for all diplomas

### **INTRODUCTION TO CONSTRUCTION**

**COURSE CODE:** 4792

**2 CREDITS (1 PER SEMESTER)**

Introduction to Construction is a course that will offer hands-on activities and real world experiences related to the skills essential in residential, commercial and civil building construction. During the course students will be introduced to the history and traditions of construction trades. The student will also learn and apply knowledge of the care and safe use of hand and power tools as related to each trade. In addition, students are introduced to blueprint reading, applied math, basic tools and equipment, and safety. Students will demonstrate building construction techniques, including concrete and masonry, framing, electrical, plumbing, dry walling, HVAC, and painting as developed locally in accordance with available



space and technologies. Students learn how architectural ideas are converted into projects and how projects are managed during a construction project in his 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.

- Grade Level: 10-12
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### **INTRODUCTION TO ENGINEERING DESIGN—PLTW (DUAL CREDIT)**

*COURSE CODE: 4812*

2 CREDITS (1 PER SEMESTER)

Introduction to Engineering Design is an introductory course which develops student problem solving skills using the design process. Students document their progress of solutions as they move through the design process. Students develop solutions using elements of design and manufacturability concepts. They develop hand sketches using 2D and 3D drawing techniques. Computer Aided Design (CAD).

- Grade Level: Grade 9-12
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### **INTRODUCTION TO TRANSPORTATION**

*COURSE CODE: 4798*

2 CREDITS (1 PER SEMESTER)

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.

- Grade Level: Grade 9-12
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- Qualifies as a quantitative reasoning course

### **PRECISION MACHINING I**

*COURSE CODE: 5782*

4 CREDITS (2 PER SEMESTER)

Precision Machining I is designed to provide students with a basic understanding of the precision machining processes used in industry, manufacturing, maintenance, and repair. The course instructs the student in industrial safety, terminology, tools and machine tools, measurement and layout. Students will become familiar with the setup and operation of power saws, drill presses, lathes, milling machines, grinders and an introduction to CNC (computer controlled) machines.

- Grade Level: Grade 9-12
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- Qualifies as a quantitative reasoning course

### **PRECISION MACHINING II**

**COURSE CODE: 5784****4 CREDITS (2 PER SEMESTER)**

Precision Machining II is a more in-depth study of skills learned in Precision Machining I, with a stronger focus in CNC setup/operation/programming. Classroom activities will concentrate on precision set-up and inspection work as well as machine shop calculations. Students will develop skills in advanced machining and measuring parts involving tighter tolerances and more complex geometry. A continued focus on safety will also be included.

- Required Prerequisites: Precision Machining I
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as a quantitative reasoning course

**PRINCIPLES OF ENGINEERING—PLTW (DUAL CREDIT)****COURSE CODE: 4814****2 CREDITS (1 PER SEMESTER)**

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.

- Grade Level: Grade 9-12
- Prerequisites: Introduction to Engineering Design
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- ***Students must have received college credit in Introduction to Engineering to be eligible for dual credit in Principles of Engineering***

**WELDING TECHNOLOGY I****COURSE CODE: 5776****4 CREDITS (2 PER SEMESTER)**

Welding Technology I includes classroom and laboratory experiences that develop a variety of skills in oxy-fuel cutting and Shielded Metal Arc welding. This course is designed for individuals who intend to make a career as a Welder, Technician, Sales, Designer, Researcher or Engineer. Emphasis is placed on safety at all times. OSHA standards and guidelines endorsed by the American Welding Society (AWS) are used. Instructional activities emphasize properties of metals, safety issues, blueprint reading, electrical principles, welding symbols, and mechanical drawing through projects and exercises that teach students how to weld and be prepared for college and career success.

- Recommended Grade: 10, 11
- Recommended Prerequisites: Introduction to Construction, Introduction to Advanced Manufacturing, or Introduction to Transportation
- Counts as a Directed Elective or Elective for all diplomas

**WELDING TECHNOLOGY II****COURSE CODE: 5778****4 CREDITS (2 PER SEMESTER)**

Welding Technology II builds on the skills covered in Welding Technology I. Emphasis is placed on safety at all times. OSHA standards and guidelines endorsed by the American Welding Society (AWS) are used. Instructional activities emphasize properties of metals, safety issues, blueprint reading, electrical principles, welding symbols, and mechanical drawing through projects and exercises that teach students how to weld and be prepared for college and career success.

- Recommended Grade: 11
- Required Prerequisites: Welding Technology I
- Counts as a Directed Elective or Elective for all diplomas

## **FINE ARTS**

### ***Band/Choir***

#### **ADVANCED CHORUS (SHOW CHOIR)**

*COURSE CODE: 4188*

2 CREDITS (1 PER SEMESTER)

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.

- Grade Level: 10, 11, or 12
- Prerequisites: Beginning Chorus; Students placed at discretion of Choral Director
- Fulfills fine arts requirement for Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- **TIME OUTSIDE OF THE SCHOOL DAY WILL BE SCHEDULED FOR REHEARSALS AND PERFORMANCES AND ARE A SUBSTANTIAL PORTION OF THE STUDENT'S GRADE**
- **Students are also expected to contribute to and/or fundraise for concert attire**

#### **ADVANCED CONCERT BAND**

*COURSE CODE: 4170*

1 CREDIT

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.

- Grade Level: 9-12
- Prerequisites: Beginning and Intermediate Concert Band; Students placed at discretion of Band Director
- Fulfills fine arts requirement for Core 40 with Academic Honors diploma

- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- **TIME OUTSIDE OF THE SCHOOL DAY WILL BE SCHEDULED FOR REHEARSALS AND/OR PERFORMANCES AND ARE A SUBSTANTIAL PORTION OF THE STUDENT'S GRADE**
- **Students are also expected to contribute to and/or fundraise for concert attire**

### **BEGINNING CONCERT BAND**

**COURSE CODE: 4160**

**2 CREDITS (1 PER SEMESTER)**

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.

- Recommended Grade Level: 9, 10, 11, or 12
- ***Students in marching band are expected to also take Concert Band Lab (41600) 1<sup>st</sup> semester***
- Fulfills fine arts requirement for Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- **TIME OUTSIDE OF THE SCHOOL DAY WILL BE SCHEDULED FOR REHEARSALS AND/OR PERFORMANCES AND ARE A SUBSTANTIAL PORTION OF THE STUDENT'S GRADE**
- **Students are also expected to contribute to and/or fundraise for concert attire**

### **BEGINNING MEN'S CHORUS/BEGINNING WOMEN'S CHORUS (L)**

**COURSE CODE: 4182**

**2 CREDITS (1 PER SEMESTER)**

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.

- Grade Level: 9-12
- Fulfills fine arts requirement for Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- **TIME OUTSIDE OF THE SCHOOL DAY WILL BE SCHEDULED FOR REHEARSALS AND PERFORMANCES AND ARE A SUBSTANTIAL PORTION OF THE STUDENT'S GRADE**
- **Students are also expected to contribute to and/or fundraise for concert attire**

### **INTERMEDIATE CHORUS/ADVANCED WOMEN'S CHORUS**

**COURSE CODE: 4186**

**2 CREDITS (1 PER SEMESTER)**

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.

- Grade Level: 10, 11, or 12
- Prerequisites: Beginning Chorus; Students placed at discretion of Choral Director
- Fulfills fine arts requirement for Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- **TIME OUTSIDE OF THE SCHOOL DAY WILL BE SCHEDULED FOR REHEARSALS AND PERFORMANCES AND ARE A SUBSTANTIAL PORTION OF THE STUDENT'S GRADE**
- **Students are also expected to contribute to and/or fundraise for concert attire**

### INTERMEDIATE CONCERT BAND

COURSE CODE: 4168

1 CREDIT

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.

- Grade Level: 9-12
- Prerequisites: Beginning Concert Band; Students placed at discretion of Band Director
- Fulfills fine arts requirement for Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- **TIME OUTSIDE OF THE SCHOOL DAY WILL BE SCHEDULED FOR REHEARSALS AND/OR PERFORMANCES AND ARE A SUBSTANTIAL PORTION OF THE STUDENT'S GRADE**
- **Students are also expected to contribute to and/or fundraise for concert attire**

### JAZZ ENSEMBLE

COURSE CODE: 4164

2 CREDITS (1 PER SEMESTER)

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.

- Grade Level: 10-12
- Fulfills requirement for 1 of 2 Fine Arts credits for the Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### MUSIC HISTORY AND APPRECIATION

**COURSE CODE: 4206****1 CREDIT**

*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.

- Grade Level: 9-12
- Fulfills fine arts requirement for Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### ***Visual/Performing Arts***

**ADVANCED TWO-DIMENSIONAL ART (L)****COURSE CODE: 4004****1 CREDIT**

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

- Recommended Grade Level: 9, 10, 11, 12
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L)
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

**CERAMICS****COURSE CODE: 4040****1 CREDIT**

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

- Recommended Grade Level: 10, 11, 12
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L), Introduction to Three-Dimensional Art (L)
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized

- Counts as a Directed Elective or Elective for all diplomas

## **DRAWING**

*COURSE CODE: 4060*

2 CREDITS (1 PER SEMESTER)

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.

- Grade Level: 10-12
- Prerequisites: Completion of Introduction to Two-Dimensional Art with a “C” or higher AND Introduction to Three-Dimensional Art with a “B” or Higher; OR Teacher Recommendation
- Fulfills fine arts requirement for Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **INTRODUCTION TO TWO-DIMENSIONAL ART**

*COURSE CODE: 4000*

1 CREDIT

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

- Recommended Grade Level: 9-12
- Fulfills fine arts requirement for Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **INTRODUCTION TO THREE-DIMENSIONAL ART**

*COURSE CODE: 4002*

1 CREDIT

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

- Recommended Grade: 9, 10, 11, 12
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L)

- Credits: 1 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma

## **PAINTING**

*COURSE CODE: 4064*

2 CREDITS (1 PER SEMESTER)

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.

- Grade Level: 10- 12
- Prerequisites: Completion of Introduction to Two-Dimensional Art with a “C” or higher AND Introduction to Three-Dimensional Art with a “B” or Higher; OR Teacher Recommendation
- Fulfills fine arts requirement for Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **THEATER ARTS**

*COURSE CODE: 4242*

2 CREDITS (1 PER SEMESTER)

*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.

- Grade Level: 9-12
- Fulfills fine arts requirement for Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **FAMILY AND CONSUMER SCIENCE**

### **ADVANCED NUTRITION AND WELLNESS I**

*COURSE CODE: 5340*

1 CREDIT

Advanced Nutrition & Wellness I will focus on topics such as International, Regional, and/or Cultural Foods; Food Science, and Careers in the food industry. Laboratory experiences will be utilized to develop food handling and preparation skills; attention will be given to baking, catering, and entrepreneurial endeavors. This course provides a foundation for continuing and post-secondary education in all career areas related to nutrition, food, and wellness.

- Grade Level: 10-12
- Prerequisites: Nutrition and Wellness



- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### **CHILD DEVELOPMENT**

*COURSE CODE: 5362*

1 CREDIT

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 care giving and nurturing; and support systems for parents and caregivers. A project-based approach that utilizes higher order thinking, communication, leadership, management processes, and fundamentals to college and career success is recommended in order to integrate these topics into the study of child development. Direct, concrete mathematics and language arts proficiencies will be applied. Authentic applications such as introductory laboratory/field experiences with young children and/or service learning that build knowledge of children, child development, and nurturing of children are strongly recommended. This course provides the foundation for continuing and post-secondary education in all career areas related to children, child development, and nurturing of children.

- Recommended Grade Level: 9-12
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### **COSMETOLOGY I**

*COURSE CODE: 5802*

6 CREDITS (3 PER SEMESTER)

Cosmetology I offers an introduction to cosmetology with an emphasis on basic practical skills and theories including roller control, quick styling, shampooing, hair coloring, permanent waving, facials, manicuring, business and personal ethics, bacteriology, and sanitation. In the second semester greater emphasis is placed on the application and development of these skills. The State of Indiana requires a total of 1500 hours of instruction for licensure. Students will be trained through the Hair Force Academy in downtown Seymour.

- Recommended Grade Level: 11, 12
- Recommended Prerequisite: Interpersonal Relationships
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as Directed Elective or Elective for all diplomas
- Students must provide their own transportation

### **COSMETOLOGY II**

*COURSE CODE: 5806*

6 CREDITS (3 PER SEMESTER)

Cosmetology II builds on concepts learned in Cosmetology I with an emphasis on the development of advanced skills in styling, hair coloring, permanent waving, facials and manicuring. Students will also study anatomy and physiology, professionalism, and salon management in relation to cosmetology.

- Required Prerequisites: Cosmetology I
- Counts as a Directed Elective or Elective for all diplomas

### **EARLY CHILDHOOD EDUCATION I**

*COURSE CODE: 5412*

2 CREDITS (1 PER SEMESTER)

Early Childhood Education prepares students for employment in early childhood education and related careers that involve working with children from birth to 8 years (3rd grade) and provides the foundations for study in higher education that leads to early childhood education and other child-related careers. A project-based approach that utilizes higher order thinking, communication, leadership, and management processes is recommended in order to integrate the study of suggested topics. Major course topics include: career paths in early childhood education; promoting child development and learning; building family and community relationships; observing, documenting, and assessing to support young children and families; using developmentally effective approaches; using content knowledge to build meaningful curriculum, and becoming an early childhood education professional. The course provides an overview of the history, theory, and foundations of early childhood education as well as exposure to types of programs, curricula, and services available to young children. Students examine basic principles of child development, importance of family, licensing, and elements of quality care of young children. The course addresses planning and guiding developmentally appropriate activities for young children in various childcare settings; developmentally appropriate practices of guidance and discipline; application of basic health, safety, and nutrition principles when working with children; overview of management and operation of licensed child care facilities or educational settings; child care regulations and licensing requirements; and employability skills. Intensive experiences in one or more early childhood settings, resumes, and career portfolios are required components. A standards-based plan for each student guides the laboratory/field experiences. Students are monitored in their laboratory/field experiences by the Early Childhood Education teacher. Student laboratory/field experiences may be either school-based or "on-the-job" in community-based early childhood education centers or in a combination of the two. Dual credit agreements with post-secondary programs are encouraged.

- Recommended Grade: 9, 10, 11
- Recommended Prerequisites: Nutrition and Wellness, Child Development, and Advanced Child Development
- Counts as a Directed Elective or Elective for all diplomas

## **EARLY CHILDHOOD EDUCATION II**

*COURSE CODE: 5406*

**2 CREDITS (1 PER SEMESTER)**

Early Childhood Education II prepares students for employment in early childhood education and related careers that involve working with children from birth to 8 years (3rd grade) and provides the foundations for study in higher education that leads to early childhood education and other child-related careers. ECE II is a sequential course that builds on the foundational knowledge and skills of Early Childhood Education I, which is a required prerequisite. In ECE II students further refine, develop, and document the knowledge, skills, attitudes, and behaviors gained in the foundational course. Major topics of ECE II include: overview of the Child Development Associate (CDA) credential, safe and healthy learning environment, physical and intellectual competence, social and emotional development, relationships with families, program management, and professionalism. The course standards parallel the expectations and documentation required for Child Development Associate (CDA) credentialing. These include rigorous levels of self-critique and reflection; performance assessments by instructors, parents, and other professionals; comprehensive assessment of knowledge through a standardized exam; and other professional documentation. Extensive experiences in one or more early childhood education settings are required: a minimum total of 480 hours must be accrued in ECE I and ECE II. These experiences may be either school-based or "on-the-job" in community-based early childhood education centers, or in a combination of the two. A standards-based plan for each student guides the early childhood education experiences. Students are monitored in these experiences by the Early Childhood Education II teacher. Dual credit agreements with post-secondary programs are encouraged.

- Required Prerequisites: Early Childhood Education I
- Counts as a Directed Elective or Elective for all diplomas

## **FASHION & TEXTILE CAREERS I**

*COURSE CODE: 5420*

## 2 CREDITS (1 PER SEMESTER)

Fashion and Textiles Careers I prepares students for occupations and higher education programs of study related to the entire spectrum of careers in the fashion industry. This course builds a foundation that prepares students to enter the Fashion Careers II course. Major topics include: review of the dimensions of clothing, investigation of design elements and principles, evaluating manufacturing process, reviewing the processes from fiber production to items of clothing being worn, overall review of the textile and apparel industry, investigation of education and related careers. The course of study includes, but is not limited to: the teaching profession, the learner and the learning process, planning instruction, learning environment, and instructional and assessment strategies. Extensive field experiences in one or more classroom settings, resumes, and career portfolios are required components. A standards-based plan guides the students' field experiences. Students are monitored in their field experiences by the Education Professions II teacher. Articulation with post-secondary programs is encouraged.

- Recommended Grade: 9, 10, 11
- Recommended Prerequisites: Preparing for College and Careers; Introduction to Fashion and Textiles Foundations; Entrepreneurship and Marketing courses
- Counts as a Directed Elective or Elective for all diplomas

## **FASHION & TEXTILE CAREERS II**

*COURSE CODE: 5421*

## 2 CREDITS (1 PER SEMESTER)

Fashion and Textiles Careers II prepares students for occupations and higher education programs of study related to the entire spectrum of careers in the fashion industry. This course builds a foundation that prepares students to enter into higher education programs of study related to the entire spectrum of the career clusters that encompass careers in fashion, apparel, and other textiles management, production, and services. Major topics include: fashion design, application of design elements and principles, the business of fashion designers, evaluating manufacturing processes, reviewing distribution processes in the fashion industry, garment costs and business math, reviewing the processes from fiber production to items of clothing being worn, overall review of the textile and apparel industry, fashion promotion, dynamics of fashion demand, writing fashion copy, investigation of fashion designers, customer relations and best practices, fashion merchandising, operational costs, forecasting trends, use of technology in the fashion industry, and career exploration and experience. A project-based approach with commercial/industry applications is a key component of this course of study. Student experiences may be either school-based or "on-the-job" or a combination of the two. Work-based experiences in the fashion industry are strongly encouraged. A standards-based plan guides the students' experiences. This course is a core component of four-year career plans for the career clusters of Personal & Commercial Services; Manufacturing & Processing; and Art, A/V Technology & Communications. It is recommended for students with interests in apparel, textiles, and fashion career pathways and provides the foundation for continuing study. Students are monitored in their experiences by the Fashion Careers II teacher. Articulation with post-secondary programs is encouraged.

- Required Prerequisites: Fashion and Textiles Careers I
- Counts as a Directed Elective or Elective for all diplomas

## **INTERPERSONAL RELATIONSHIPS**

*COURSE CODE: 5364*

## 1 CREDIT

Interpersonal Relationships is an introductory course that is especially relevant for students interested in careers that involve interacting with people. It is also valuable for all students as a life foundation and academic enrichment. This course addresses knowledge and skills needed for positive and productive relationships in career, community, and family settings. Major course topics include communication skills; leadership, teamwork, and collaboration; conflict prevention, resolution, and management; building and maintaining relationships; and individual needs and characteristics and their impacts on relationships. A project-based approach that utilizes higher order thinking, communication, leadership, and management

processes, and fundamentals to college and career success is recommended in order to integrate these topics into the study of interpersonal relationships. Direct, concrete language arts proficiencies will be applied. Service learning and other authentic applications are strongly recommended. This course provides a foundation for continuing and post-secondary education for all career areas that involve interacting with people both inside and outside of a business/organization, including team members, clients, patients, customers, and the general public.

- Grade Level: 9-12
- Recommended Prerequisites: None
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **INTRODUCTION TO HOUSING AND INTERIOR DESIGN**

*COURSE CODE: 5350*

1 CREDIT

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 involves 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 will be 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.

- Grade Level: 9-12
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **NUTRITION AND WELLNESS**

*COURSE CODE: 5342*

1 CREDIT

Nutrition and Wellness is an introductory course valuable for all students as a life foundation and academic enrichment; it is especially relevant for students interested in careers related to nutrition, food, and wellness. This is a nutrition class that introduces students to only the basics of food preparation so they can become self-sufficient in accessing healthy and nutritious foods. Major course topics include nutrition principles and applications; influences on nutrition and wellness; food preparation, safety, and sanitation; and science, technology, and careers in nutrition and wellness. A project-based approach that utilizes higher order thinking, communication, leadership, management processes, and fundamentals to college and career success is recommended in order to integrate these topics into the study of nutrition, food, and wellness. Food preparation experiences are a required component. Direct, concrete mathematics and language arts proficiencies will be applied. This course is the first in a sequence of courses that provide a foundation for continuing and post-secondary education in all career areas related to nutrition, food, and wellness.

- Grade Level: 9-12
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **NUTRITION SCIENCE CAREERS I**

*COURSE CODE: 5456*

## 2 CREDITS (1 PER SEMESTER)

Nutrition Science Careers I is an instructional program that introduces students to careers in nutrition, dietetics, food science, food research and development, and related careers. The course of study includes topics and issues in nutrition; food science topics and issues; topics related to the management of daily living needs of individuals and families; nutrition and food for children and the elderly; topics related to cleaning and maintenance, purchasing, and food preparation; managing operations in food production, food science, or food research and development establishments; related research, development, and testing. Intensive laboratory experiences with industry applications are a required component of this course of study. Work-based experiences in food and nutrition science careers are strongly encouraged.

- Recommended Grade: 9,10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Nutrition and Wellness, Advanced Nutrition and Wellness, Advanced Life Science Foods or Biochemistry of Foods
- Counts as a Directed Elective or Elective for all diplomas

### **NUTRITION SCIENCE CAREERS II**

*COURSE CODE: 5457*

## 2 CREDITS (1 PER SEMESTER)

Nutrition Science Careers II builds on content and skills of Nutrition Science Careers I and prepares students for careers in and higher education programs related to nutrition, dietetics, food science, food research and development, and related careers that focus on assisting individuals and families in managing their personal, family, and social needs regarding nutrition, diet, and foods. The course of study includes, but is not limited to: advanced topics and issues in nutrition; advanced food science topics and issues; food and nutrition for individuals and families with special needs and disadvantaging conditions; topics related to the management of daily living needs of individuals and families; nutrition and foods in child care and convalescent care; topics and issues related to maintaining the food supply; topics related to cleaning and maintenance, purchasing, and food preparation; managing operations in food production, food science, or food research and development establishments; providing for the dietary needs of persons with special requirements; related research, development, and testing. Ethical, legal, and safety issues as well as helping processes and collaborative ways of working with others are to be addressed. Intensive laboratory experiences with industry applications are a required component of this course of study. Work-based experiences in food and nutrition science careers are strongly encouraged. This course provides the foundation for study in higher education that leads to related careers.

- Required Prerequisites: Nutrition Science Careers I
- Recommended Prerequisites: none
- Counts as a Directed Elective or Elective for all diplomas

## **BUSINESS EDUCATION**

### **ADVANCED ACCOUNTING (DUAL CREDIT)**

*COURSE CODE: 4522*

## 2 CREDITS (1 PER SEMESTER)

Advanced Accounting expands on the Generally Accepted Accounting Principles (GAAP) and procedures for proprietorships and partnerships using double-entry accounting covered in Introduction to Accounting. Emphasis is placed on accounting principles as they relate to both manual and automated financial systems. This course involves understanding, analyzing, and recording business transactions and preparing, analyzing, and interpreting financial reports as a basis for decision-making.

- Recommended Grade Level: 11, 12
- Required Prerequisites: Introduction to Accounting
- Counts as a Directed Elective or Elective for all diplomas

- Qualifies as a quantitative reasoning course

### **AP COMPUTER SCIENCE**

*COURSE CODE: 4570*

2 CREDITS (1 PER SEMESTER)

AP Computer Science A 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 Computer Science A is equivalent to a first-semester, college-level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. The curriculum for AP Computer Science A is compatible with many CS1 courses in colleges and universities.

- Recommended Grade Level: 11,12
- Recommended Prerequisites: Digital Citizenship, Algebra I, and Algebra II
- Counts as a Mathematics or an Elective for all diplomas
- Qualifies as a quantitative reasoning course

### **BUSINESS LAW AND ETHICS (DUAL CREDIT)**

*COURSE CODE: 4560*

1 CREDIT

Business Law and Ethics provides an overview of the legal system in the business setting. Topics covered include: basics of the judicial system, contract, personal, employment and property law. Application of legal principles and ethical decision-making techniques are presented through problem-solving methods, case review, and situational analyses.

- Recommended Grade Level: 11, 12
- Recommended Prerequisites: None
- Counts as a Directed Elective or Elective for all diplomas
- ***Students must meet Ivy Tech Testing Requirements for PSAT, SAT, ACT or Accuplacer to receive dual credit (see counselor for details)***

### **DIGITAL APPLICATIONS AND RESPONSIBILITY**

*COURSE CODE: 4528*

1 CREDIT

Digital Applications and Responsibility prepares students to use technology in an effective and appropriate manner in school, in a job, or everyday life. Students develop skills related to word processing, spreadsheets, presentations, and communications software. Students learn what it means to be a good digital citizen and how to use technology, including social media, responsibly. Students expand their knowledge of how to use digital devices and software to build decision-making and problem-solving skills. Students should be provided with the opportunity to seek industry-recognized digital literacy certifications.

- Grade Level: 9--***freshmen are required to take this course***
- Counts as a Directed Elective or Elective for all diplomas

### **DIGITAL APPLICATIONS AND RESPONSIBILITY II (DUAL CREDIT)**

*COURSE CODE: 4528*

1 CREDIT

Information Communications and Technology introduces students to the physical components and operation of computers. Students will learn a deeper understanding of Word, Access, PowerPoint, and Excel. Technology is used to build students decision-making and problem-solving skills. Students should be given the opportunity to seek an industry-recognized digital literacy certification.

- Grade Level: Grade 10-12
- Prerequisite: Digital Applications and Responsibility
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- ***Students must meet Ivy Tech Testing Requirements for PSAT, SAT, ACT or Accuplacer to receive dual credit (see counselor for details)***

## **ENTREPRENEURSHIP AND NEW VENTURES CAPSTONE**

*COURSE CODE: 5966*

2 CREDITS (1 PER SEMESTER)

Entrepreneurship and New Ventures Capstone introduces entrepreneurship, and develop skills and tools critical for starting and succeeding in a new venture. The entrepreneurial process of opportunity recognition, innovation, value proposition, competitive advantage, venture concept, feasibility analysis, and “go to” market strategies will be explored through mini-case studies of successful and unsuccessful entrepreneurial start-ups. Additionally, topics of government and legal restrictions, intellectual property, franchising location, basic business accounting, raising startup funding, sales and revenue forecasting, and business plan development will be presented through extensive use of word processing, spreadsheet and presentation software.

- Recommended Grade Level: 12
- Recommended Prerequisites: Principles of Business Management or Principles of Marketing
- Required Prerequisites: Introduction to Entrepreneurship and Digital Applications and Responsibility
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits
- Counts as a Directed Elective or Elective for all diplomas

## **INTRODUCTION TO ACCOUNTING**

*COURSE CODE: 4524*

2 CREDITS (ONE PER SEMESTER)

*Accounting* 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.

- Grade Level: Grade 10-12
- Prerequisites: None
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **INTRODUCTION TO BUSINESS**

*COURSE CODE: 4518*

2 CREDITS (1 PER SEMESTER)

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 further develops business vocabulary and provides an overview of business and the role that business plays in economic, social, and political environments.

- Grade Level: Grade 9-12
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### **INTRODUCTION TO ENTREPRENEURSHIP**

*COURSE CODE: 5967*

1 CREDIT

Introduction to Entrepreneurship provides an overview of what it means to be an entrepreneur. Students will learn about starting and operating a business, marketing products and services, and how to find resources to help in the development of a new venture. This course is ideal for students interested in starting their own art gallery, salon, restaurant, etc.

- Recommended Grade: 9, 10
- Counts as a Directed Elective or Elective for all diplomas

### **PERSONAL FINANCIAL RESPONSIBILITY**

*COURSE CODE: 4540*

1 CREDIT

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, saving and investing; understand banking, budgeting, record-keeping and managing risk, insurance and credit card debt. A project based approach and applications through authentic settings such as work based observations and service learning experiences are appropriate. Direct, concrete applications of mathematics proficiencies in projects are encouraged.

- Grade Level: Grade 10-12
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### **PREPARING FOR COLLEGE AND CAREERS**

*COURSE CODE: 5394*

1 CREDIT

Preparing for College and Careers addresses the knowledge, skills, and behaviors all students need to be prepared for success in college, career, and life. The focus of the course is the impact of today's choices on tomorrow's possibilities. Topics to be addressed include twenty-first century life and career skills; higher order thinking, communication, leadership, and management processes; exploration of personal aptitudes, interests, values, and goals; examining multiple life roles and responsibilities as individuals and family members; planning and building employability skills; transferring school skills to life and work; and managing personal resources. This course includes reviewing the 16 national career clusters and Indiana's College and Career Pathways, in-depth investigation of one or more pathways, reviewing graduation plans, developing career plans, and developing personal and career portfolios. A project based approach, including computer and technology applications, cooperative ventures between school and community, simulations, and real life experiences, is recommended.

- Grade Level: 9--**freshmen are required to take this course**
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### **PRINCIPLES OF MARKETING (DUAL CREDIT)**

*COURSE CODE: 5914*



## 2 CREDITS (1 PER SEMESTER)

Principles of Marketing provides a basic introduction to the scope and importance of marketing in the global economy. Students will study Marketing Concepts, the Marketing Mix, create a Marketing Plan and practice personal selling techniques. Emphasis is placed on oral and written communications, mathematical applications, problem solving, and critical thinking skills as they relate to advertising, promotion, selling, distribution, financing, marketing information management, pricing, and product/service management.

- Grade Level: Grade 11-12
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- ***Students must meet Ivy Tech Testing Requirements for PSAT, SAT, ACT or Accuplacer to receive dual credit (see counselor for details)***

## WEB DESIGN

COURSE CODE: 4574

1 CREDIT

Web Design is a course that provides instruction in the principles of web design using HTML/XHTML and current/emerging software programs. Areas of instruction include audience analysis, hierarchy layout and design techniques, software integration, and publishing. Instructional strategies should include peer teaching, collaborative instruction, project-based learning activities and school community projects.

- Grade Level: Grade 11- 12
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## WORK-BASED LEARNING (WBL)

COURSE CODE: 5974

1 – 3 CREDITS PER SEMESTER (UP TO 6 CREDITS MAX)

Work Based Learning Capstone is an instructional strategy that can be implemented as a stand-alone course or a component of any CTE course that prepares students for college and career. This strategy builds students' skills and knowledge in their chosen career path or furthers their study within the area of interest. A standards based training plan is developed by the student, teacher, and workplace mentor to guide the student's work based learning experiences and assist in evaluating achievement and performance, whether WBL is a stand-alone course or a component of a discipline-specific CTE course.

In the stand-alone WBL Capstone courses, students have the opportunity to apply the concepts, skills, and dispositions learned in previous coursework in their pathways in real world business and industry settings. Therefore, at least two courses in a student's pathway would be prerequisite to the student enrolling in the stand-alone WBL courses. Intensive applications are a required component of this course and may be either school based or work based or a combination of the two. Work Based Learning experiences need to be in a closely related industry setting. Instructors must have a standards-based training plan for each student participating in Work Based Learning experiences. When a course is offered for multiple hours per semester, the amount of project-based application or Work Based Learning needs to be increased proportionally.

Students are monitored in their experiences by the content-related CTE teacher or a CTE teacher needs to be the teacher for the comprehensive course.

### *Application of Content and Multiple Hour Offerings*

Intensive applications are a required component of this course. Work Based Learning experiences need to be in a closely related industry setting. Instructors must have a standards-based training plan for each student participating in Work Based

Learning experiences. When a course is offered for multiple hours per semester, the amount of project-based application or Work Based Learning needs to be increased proportionally. Students are monitored in their experiences by the *content related CTE* teacher. For the Multiple Pathways option, any teacher with a standard CTE license may teach the course.

- Grade Level: 12
- Required Prerequisites: Preparing for College and Careers; a minimum of 4 credits of introductory and advanced courses related to a student's pathway and to the work site placement
- Credits: 2 semester course, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

## **AGRICULTURE EDUCATION**

### **ADVANCED LIFE SCIENCE: ANIMALS**

*COURSE CODE: 5070*

2 CREDITS (1 PER SEMESTER)

Advanced Life Science: Animals provides students with opportunities to participate in a variety of activities including laboratory work. Students investigate concepts that enable them to understand animal life and animal science as it pertains to agriculture. Through instruction, including laboratory, fieldwork, leadership development, supervised agricultural experience and the exploration of career opportunities, they will recognize concepts associated with animal taxonomy, life at the cellular level, organ systems, genetics, evolution, and ecology, historical and current issues in animal agriculture in the area of advanced life science in animals.

- Grade Level: 11-12
- Prerequisites: Animal Science and completion of Chemistry/ICP and Biology with a "C" or higher; teacher recommendation
- Fulfills a Core 40 Science requirement for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas or counts as an Elective or Directed Elective for any diploma
- Qualifies as a quantitative reasoning course

### **ADVANCED LIFE SCIENCE: FOODS**

*COURSE CODE: 5072*

2 CREDITS (1 PER SEMESTER)

Advanced Life Science: Foods is a course that provides students with opportunities to participate in a variety of activities including laboratory work. This is a standards-based, interdisciplinary science course that integrates biology, chemistry, and microbiology in the context of foods and the global food industry. Students enrolled in this course formulate, design, and carry out food-base laboratory and field investigations as an essential course component. Students understand how biology, chemistry, and physics principles apply to the composition of foods, the nutrition of foods, food and food product development, food processing, food safety and sanitation, food packaging, and food storage. Students completing this course will be able to apply the principles of scientific inquiry to solve problems related to biology, physics, and chemistry in the context of highly advanced industry applications of foods.

- Recommended Grade: 11, 12
- Recommended Prerequisites: Chemistry, Biology, Introduction to Agriculture, Food and Natural Resources, Food Science, Nutrition and Wellness, Advanced Nutrition and Wellness
- Fulfills a Core 40 Science requirement for all diplomas
- Qualifies as a quantitative reasoning course

### **AGRIBUSINESS MANAGEMENT (DUAL CREDIT)**

*COURSE CODE: 5002*

2 CREDITS (1 PER SEMESTER)

Agribusiness Management provides foundational concepts in agribusiness. This course introduces students to the principles of business organization and management from a local and global perspective while incorporating technology. Concepts covered in the course include food and fiber, forms of business, finance, marketing, management, sales, leadership development, supervised agricultural experience career opportunities in the area of agribusiness management.

- Recommended Grade Level: 11, 12
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Counts as an Elective or Directed Elective for all diplomas
- Qualifies as a quantitative reasoning course

### **ANIMAL SCIENCE (DUAL CREDIT)**

*COURSE CODE: 5008*

2 CREDITS (1 PER SEMESTER)

Animal Science provides students with an overview of the field of animal science. Students participate in a large variety of activities and laboratory work including real and simulated animal science experiences and projects. All areas that the students study can be applied to both large and small animals. Topics to be addressed include: anatomy and physiology, genetics, reproduction, nutrition, common diseases and parasites, social and political issues related to the industry and management practices for the care and maintenance of animals while incorporating leadership development, supervised agricultural experience and learning about career opportunities in the area of animal science.

- Grade Level: 10-12
- Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Fulfills a Life Science or Physical Science requirement for the General Diploma only
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### **FOOD SCIENCE (DUAL CREDIT)**

*COURSE CODE: 5102*

2 CREDITS (1 PER SEMESTER)

Food Science provides students with an overview of food science and its importance. Introduction to principles of 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 help students understand the role that food science plays in securing a safe, nutritious and adequate food supply. A project-based approach is utilized along with laboratory, team building and problem solving activities to enhance student learning, leadership development, supervised agricultural experience and career opportunities in the area of food science.

- Grade Level : 10-12
- Fulfills a Life Science or Physical Science requirement for the General Diploma only
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

### **HORTICULTURE SCIENCE (DUAL CREDIT)**

*COURSE CODE: 5132*

2 CREDITS (1 PER SEMESTER)

Horticulture Science is designed to give students a background in the field of horticulture and its many career opportunities. It addresses the biology and technology involved in the production, processing and marketing of plants and its products. Topics covered include: reproduction and propagation of plants, plant growth, growth media, management practices for field and greenhouse production, marketing concepts, production of plants of local interest and pest management. Students participate in a variety of activities to include extensive laboratory work usually in a school greenhouse, leadership development, supervised agricultural experience and learning about career opportunities in the area of horticulture science.

- Grade Level: 10-12
- Fulfills a Life Science or Physical Science requirement for the General Diploma only
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- ***Students must meet Ivy Tech Testing Requirements for PSAT, SAT, ACT or Accuplacer to receive dual credit (see counselor for details)***

## **INTRODUCTION TO AGRICULTURE, FOOD AND NATURAL RESOURCES**

**COURSE CODE: 5056**

**2 CREDITS (1 PER SEMESTER)**

Introduction to Agriculture, Food and Natural Resources is highly recommended as a prerequisite to and a foundation for all other agricultural classes. The nature of this course is to provide students with an introduction to the fundamentals of agricultural science and business. Topics to be covered include: animal science, plant and soil science, food science, horticultural science, agricultural business management, landscape management, natural resources, agriculture power, structure and technology, leadership development, supervised agricultural experience and career opportunities in the area of agriculture, food and natural resources.

- Grade Level: 9-10
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **LANDSCAPE MANAGEMENT (DUAL CREDIT)**

**COURSE CODE: 5136**

**2 CREDITS (1 PER SEMESTER)**

Landscape Management provides the student with an overview of the many career opportunities in the diverse field of landscape management. Students are introduced to the procedures used in the planning and design of a landscape using current technology practices, the principles and procedures of landscape construction, the determination of maintenance schedules, communications and management skills necessary in landscape operations and the care and use of equipment utilized by landscapers. Students will also participate in Leadership development, supervised agricultural experience and career exploration activities in the area of landscape management. Upon completion of the program, students have the opportunity to become Indiana Landscape Industry Certified through a state approved program.

- Grade Level: 10-12
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- Qualifies as a quantitative reasoning course

## **NATURAL RESOURCES**

**COURSE CODE: 5180**

**2 CREDITS (1 PER SEMESTER)**

Natural Resources provides students with a foundation in natural resources. Hands-on learning activities in addition to leadership development, supervised agricultural experience and career exploration 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, rangelands, wetlands, animal wildlife and safety.

- Grade Level: 10-12
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- ***Students must meet Ivy Tech Testing Requirements for PSAT, SAT, ACT or Accuplacer to receive dual credit (see counselor for details)***

**PLANT AND SOIL SCIENCE (DUAL CREDIT)***COURSE CODE: 5170*

2 CREDITS (1 PER SEMESTER)

Plant and Soil Science provides students with opportunities to participate in a variety of activities which includes laboratory work. The following topics are found in this course: plant taxonomy, components and their functions; plant growth, reproduction and propagation; photosynthesis and respiration; environmental factors affecting plant growth, management of plant diseases and pests; biotechnology; the basic components and types of soil; calculation of fertilizer application rates and procedures for application; soil tillage and conservation; irrigation and drainage; land measurement, cropping systems, precision agriculture, principles and benefits of global positioning systems; and harvesting. Leadership development, supervised agricultural experience and career exploration opportunities in the field of plant and soil science are also included.

- Grade Level: Grade 10-12
- Fulfills a Life Science or Physical Science requirement for the General Diploma only
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- Fulfills a Life Science or Physical Science requirement for the General Diploma only or counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

**MULTI-DISCIPLINARY****JOBS FOR AMERICA'S GRADUATES (JAG)***COURSE CODE: 0509*

2 CREDITS (1 PER SEMESTER)

Jobs for America's Graduates (JAG) is a state-based, national non-profit organization dedicated to preventing dropouts among young people who are most at-risk. JAG's mission is to keep young people in school through graduation and provide work-based learning experiences that will lead to career advancement opportunities or to enroll in a postsecondary institution that leads to a rewarding career. JAG students receive adult mentoring while in school and one year of follow-up counseling after graduation. The JAG program is funded through grants provided by the Indiana Department of Workforce Development.

- Recommended Grade: 11, 12

**PEER TUTORING***COURSE CODE: 0520*

1 CREDIT PER SEMESTER, 2 CREDITS MAXIMUM

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. Students can serve as a peer tutor for 1) special needs students or 2) as a language translator for English language learners.

- Recommended Grade Level: 10, 11 or 12
- Counts as an Elective for all diplomas

**C4-COLUMBUS AREA CAREER CONNECTION (11<sup>th</sup>/12<sup>th</sup> GRADE ONLY)****\*\* ALL CLASSES ARE A ONE YEAR COMMITMENT \*\***

Classes are located at Columbus East or Columbus North High Schools and last from 12:30 to 3:00 every day. Visit BCSC's C4 Website for more information: <https://www.bcscschools.org/c4>

## **ARCHITECTURAL DRAFTING AND DESIGN**

Architectural Drafting and Design gives students a basic understanding of the detailing skills commonly used by drafting technicians. Areas of study include: lettering, sketching, proper use of equipment, geometric constructions) with emphasis on orthographic (multi-view) drawings that are dimensioned and noted to ANSI standards. This course includes the creation and interpretation of construction documents. Methods of geometric construction, three-dimensional drawing techniques, and sketching will be presented as well as elementary aspects of residential design and site work. Areas of emphasis will include print reading and drawing. This course also provides students with a basic understanding of the features and considerations associated with the operation of a computer-aided design (CAD) system. Students will gain valuable hands-on experience with Auto CAD. They will be expected to complete several projects relating to command topics. Topics include: 2D drawing commands, coordinate systems, editing commands, paper and model space, inquiry commands, layers, plotting, text, and basic dimensioning.

## **AUTOMATION AND ROBOTICS**

Industrial Automation and Robotics I, will introduce students to design and programming concepts in basic robots that use sensors and actuators to solve specific problems and complete specific tasks. This will include introductory programming autonomous mode. Students will also learn to program a humanoid robot, tethered and in autonomous mode, able to react to specific circumstances and perform human-like tasks when programming is complete. This course will provide fundamentals in industrial robotics basic programming and operations. Students will program an industrial robot through explanation of a teach pendant and use proper programming commands with hands-on utilization of an industrial robot. This course will provide fundamental knowledge and skills in basic lasers, pneumatics, hydraulics, mechanics, basic electronics, and programmable logic controllers along with an understanding of career pathways in this sector.

## **AUTOMOTIVE SERVICES TECHNOLOGY**

Automotive Services Technology I is a one year course that encompasses the sub topics of the NATEF/ ASE identified areas of Steering & Suspension and Braking Systems. This one year course offering may be structured in a series of two topics per year offered in any combination of instructional strategies of semester based or yearlong instruction. Additional areas of manual transmissions and differentials, automatic transmissions, air conditioning, and engine repair should be covered as time permits. This one year offering must meet the NATEF program certifications for the two primary areas offered in this course. This course provides the opportunity for dual credit for students who meet postsecondary requirements for earning dual credit and successfully complete the dual credit requirements of this course. Mathematical skills will be reinforced through precision measuring activities and cost estimation/ calculation activities. Scientific principles taught and reinforced in this course include the study of viscosity, friction, thermal expansion, and compound solutions. Written and oral skills will also be emphasized to help students communicate with customers, colleagues, and supervisors.

## **COMPUTER ANIMATION AND VISUALIZATION**

3D Computer Animation and Visualization prepares students to use computer applications and related visual and sound imaging techniques to create and manipulate images and information. The course includes instruction in three-dimensional solid model creation, sketching, and storyboarding, time and motion study, color and lighting studies, and camera positioning. Using current computer animation software that reflects industry standards, students should produce projects for commercial applications in one or more of the following areas: engineering, architectural, or industrial design; marketing; video production; internet design; electronic gaming; and, education and training.

## **CRIMINAL JUSTICE**

Criminal Justice I Introduces specialized classroom and practical experiences related to public safety occupations such as law enforcement, loss prevention services, and homeland security. This course provides an introduction to the purposes, functions, and history of the three primary parts of the criminal justice system as well as an introduction to the investigative process. Oral and written communication skills should be reinforced through activities that model public relations and crime prevention efforts as well as the preparation of police reports. This course provides the opportunity for dual credit for students who meet postsecondary requirements for earning dual credit and successfully complete the dual credit requirements of this course.

## **CULINARY ARTS AND HOSPITALITY MANAGEMENT**

Culinary Arts and Hospitality Management prepares students for occupations and higher education programs of study related to the entire spectrum of careers in the hospitality industry. This course builds a foundation that prepares students to enter the Advanced Culinary Arts or Advanced Hospitality courses. Major topics include: introduction to the hospitality industry; food safety and personal hygiene; sanitation and safety; regulations, procedures, and emergencies; basic culinary skills; culinary math; and food preparation techniques and applications; principles of purchasing, storage, preparation, and service of food and food products; ; apply basic principles of sanitation and safety in order to maintain safe and healthy food service and hospitality environments; use and maintain related tools and equipment; and apply management principles in food service or hospitality operations. Intensive laboratory experiences with commercial applications are a required component of this course of study. Student laboratory experiences may be either school-based or "on-the-job" or a combination of the two. Work-based experiences in the food industry are strongly encouraged. A standards-based plan guides the students' laboratory experiences. Students are monitored in their laboratory experiences by the *Culinary Arts and Hospitality* teacher. Articulation with postsecondary programs is encouraged

## **EDUCATION PROFESSIONS**

Education Professions I provides the foundation for employment in education and related careers and prepares students for study in higher education. An active learning approach that utilizes higher order thinking, communication, leadership, and management processes is recommended in order to integrate suggested topics into the study of education and related careers. The course of study includes, but is not limited to: the teaching profession, the learner and the learning process, planning instruction, learning environment, and instructional and assessment strategies. Exploratory field experiences in classroom settings and career portfolios are required components. A standards-based plan guides the students' field experiences. Students are monitored in their field experiences by the Education Professionals I teacher. Articulation with postsecondary programs is encouraged.

## **ELECTRONICS AND COMPUTER TECHNOLOGY**

Electronics and Computer Technology introduces students to the fundamental electronic concepts necessary for entry into an electronic and computer systems career pathway, which will culminate with industry certifications or additional post-secondary education. Classroom and laboratory experiences will allow students to begin their career preparation in the fundamental electronics concepts of Job Site Skills, DC Basics, AC Basics, and Personal Computer Design, and will incorporate safety, technical writing, mathematical concepts, and customer service.

## **GRAPHIC DESIGN AND LAYOUT**

Graphic Design and Layout includes organized learning experiences that incorporate a variety of visual art techniques as they relate to the design and execution of layouts and illustrations for advertising, displays, promotional materials, and instructional manuals. Instruction also covers advertising theory and preparation of copy, lettering, posters, and artwork in addition to incorporation of photographic images. Communication skills will be emphasized through the study of effective methods used to design commercial products that impart information and ideas. Advanced instruction might also include



experiences in various printing processes as well as activities in designing product packaging and commercial displays or exhibits.

### **GRAPHIC IMAGING TECHNOLOGY**

Graphic Imaging Technology will include organized learning experiences that focus on theory and laboratory activities in pre-press, press and finishing operations. Emphasis will be placed on elements of design and layout leading to computerized electronic image generation, plate preparation, pressroom operations, and finishing techniques. Instructional activities will enhance student's language arts skills through the use of proofreading, spelling, and punctuation exercises. The course will include actual production processes in conjunction with classroom assignments embracing the technologies of printing, publishing, packaging, electronic imaging, and their allied industries.

### **HEALTH SCIENCE EDUCATION: DENTAL CAREERS**

Dental Careers I prepares the student for an entry-level dental assisting position. Emphasis is placed on the clinical environment, chair-side assisting, equipment/instrument identification, tray set-ups, sterilization, and characteristics of microorganisms and disease control. In addition, oral, head and neck anatomy, basic embryology, histology, tooth morphology, charting dental surfaces, and illness are all introduced. Simulated in-school laboratories and/or extended laboratory experiences are also included to provide opportunities for students to further develop clinical skills and the appropriate ethical behavior. Leadership skills are developed and community service opportunities are provided through participation in HOSA. Students have

### **HEALTH SCIENCE EDUCATION: VETERINARY CAREERS**

Veterinary Careers I is a lab intensive course that introduces students to animal care and veterinary medicine. Through classroom and field experiences, students will attain the necessary skills to demonstrate standard protocols that are used in veterinary careers. This course also provides students with the knowledge, attitudes, and skills needed to make the transition from school to work in health science careers. Students are encouraged to focus on self-analysis to aid in their career selection. Job seeking and job maintenance skills, personal management skills, and completion of the application process for admission into a post-secondary program are also areas of focus. Participation in HOSA or FFA encourages development of leadership, communication, and career related skills, and opportunities for community service.

### **NETWORKING FUNDAMENTALS**

Networking Fundamentals introduces students to concepts of local and wide area networks, home networking, networking standards using the IEEE/OSI Model, network protocols, transmission media and network architecture/topologies. Security and data integrity will be introduced and emphasized throughout this course. The purpose of this course is to offer students the critical information needed to successfully move into a role as an IT professional supporting networked computers. Concepts covered will include TCP/IP client administration, planning a network topology, configuring the TCP/IP protocol, managing network clients, configuring routers and hubs as well as creating a wireless LAN.

### **RADIO AND TELEVISION**

Radio and Television I focuses on communication, media and production. Emphasis is placed on career opportunities, production, programming, promotion, sales, performance, and equipment operation. Students will also study the history of communication systems as well as communication ethics and law. Students will develop oral and written communication skills, acquire software and equipment operation abilities, and integrate teamwork skills. Instructional strategies may include a hands-on school-based enterprise, real and/or simulated occupational experiences, job shadowing, field trips, and internships.