

NEW PRAIRIE HIGH SCHOOL

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Curriculum Guide - Courses and Descriptions
2017-18

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Agriculture Department

INTRODUCTION TO AGRICULTURE, FOOD AND NATURAL RESOURCES (5056)

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.

- Recommended Grade Level: 9, 10, 11, 12
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

AGRIBUSINESS MANAGEMENT (5002)

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: 10, 11, 12
- Prerequisite: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as an Elective or Directed Elective for all diplomas

ANIMAL SCIENCE (5008)

Animal Science provides students with an overview of the animal science field. 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.

- Recommended Grade Level: 10, 11
- Prerequisite: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1-3 credit(s) per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Life Science or Physical Science requirement for the General Diploma

PLANT AND SOIL SCIENCE (5170)

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 effecting 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.

- Recommended Grade Level: 10, 11, 12
- Prerequisite: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Life Science or Physical Science requirement for the General Diploma only

AGRICULTURE POWER, STRUCTURE AND TECHNOLOGY (5088)

Replaces Intro to Manufacturing

Agriculture Power, Structure and Technology is a lab intensive course in which students develop an understanding of basic principles of selection, operation, maintenance and management of agricultural equipment in concert while incorporating technology. Topics covered include: safety, electricity, plumbing, concrete, carpentry, metal technology, engines, emerging technologies, leadership development, supervised agricultural experience and career opportunities in the area of agriculture power, structure and technology.

- Grade Level: 10, 11, 12
- Prerequisites: Introduction to Agriculture, Food and Natural Resources or Introduction to Advanced Manufacturing and Logistics
- Credits: 2 semester course, 2 semesters required, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas

Art Department

INTRODUCTION TO THREE-DIMENSIONAL ART (4002)

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 Level: 9, 10, 11, 12
- 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

INTRODUCTION TO TWO-DIMENSIONAL ART (4000)

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, 10, 11, 12
- 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

AP ART HISTORY (4025)

AP Art History is a course based on the content established and copyrighted by the College Board. The AP Art History course is equivalent to a two-semester introductory college course that explores topics such as the nature of art, art making, and responses to art. By investigating a specific image set of 250 works of art characterized by diverse artistic traditions from prehistory to the present, the course fosters in-depth, holistic understanding of the history of art from a global perspective. Students become active participants in the global art world, engaging with its forms and content, as they experience, research, discuss, read, and write about art, artists, art making, and responses to and interpretations of art.

- Recommended Grade Level: 10, 11, 12
- Credits: 2 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors diploma

CERAMICS I/II (4040)

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
- Prerequisite: Introduction to Three Dimensional Art, Ceramics II requires Introduction to Three Dimensional Art and Ceramics I
- 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

DRAWING I/II (4060)

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

- Recommended Grade Level: 10, 11, 12
- Prerequisite: Introduction to Two-Dimensional Art, Drawing II requires Introduction to Two Dimensional Art and Drawing I
- 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

PAINTING I/II (4064)

Painting is a course based on the Indiana Academic Standards for Visual Art. Students taking painting engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production that lead to the creation of portfolio quality works. Students create abstract and realistic paintings, using a variety of materials such as mixed media, watercolor, oil, and acrylics as well as

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

- Recommended Grade Level: 10, 11, 12
- Prerequisites: Introduction to Two-Dimensional Art, Painting II requires Introduction to Two Dimensional Art and Painting I
- 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

PHOTOGRAPHY (4062)

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

- Recommended Grade Level: 10, 11, 12
- Prerequisite: Introduction to Two-Dimensional Art
- 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

SCULPTURE I/II (4044)

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

- Recommended Grade Level: 10, 11, 12
- Prerequisite: Introduction to Three Dimensional Art, Sculpture II requires Introduction to Three Dimensional Art and Sculpture I

- 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

VISUAL COMMUNICATION (4086)

Visual Communication is a course based on the Indiana Academic Standards for Visual Art. Students in visual communication engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works. They create print media utilizing graphic design, typography, illustration, and image creation with digital tools and computer technology. Students reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art-related careers.

- Recommended Grade Level: 10, 11, 12
- Prerequisite: Introduction to Two-Dimensional Art
- 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

Business Department

PREPARING FOR COLLEGE AND CAREERS (5394)

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, 10
- Credits: 1 semester course, 1 credit per semester, 1 credit maximum
- Counts as a Directed Elective or Elective for all diplomas
- New Prairie graduation requirement

BUSINESS LAW AND ETHICS (4560)

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: 10, 11, 12
- Credits: 1 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas

PERSONAL FINANCIAL RESPONSIBILITY (4540)

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.

- Recommended Grade Level: 10, 11, 12
- Credits: 1 semester course, 1 credit per semester, 1 credit maximum
- Counts as a Directed Elective or Elective for all diplomas

INTRODUCTION TO ACCOUNTING (4524)

Introduction to 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.

- Recommended Grade Level: 10, 11, 12
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for the all diplomas

ADVANCED ACCOUNTING (4522)

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
- Prerequisite: Introduction to Accounting
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

INTRODUCTION TO BUSINESS (4518)

Introduction to Business introduces students to the world of business, including the concepts, functions, and skills required for meeting the challenges of operating a business in the twenty-first century on a local, national, and/or international scale. The course covers business management, entrepreneurship, marketing fundamentals, and business ethics and law. The course develops business vocabulary and provides an overview of business and the role that business plays in economic, social, and political environments.

- Recommended Grade Level: 9, 10
- Credits: 1 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas

INTRODUCTION TO COMPUTER SCIENCE (4803)

Designed to be the first computer science course for students who have never programmed before, ICS is an optional starting point for the PLTW Computer Science program. Students work in teams to create simple apps for mobile devices using MIT App Inventor®. Students explore the impact of computing in society and the application of computing across career paths and build skills and awareness in digital citizenship and cyber security. Students model, simulate, and analyze data about themselves and their interests. They also transfer the understanding of programming gained in App Inventor to learn introductory elements of text-based programming in Python® to create strategy games.

- Grade Level: 9, 10, 11, 12
- Credits: 1 semester course, 1 credit
- Counts as a directed elective for all diplomas

COMPUTER SCIENCE I (4801)

Computer Science I introduces the structured techniques necessary for efficient solution of business-related computer programming logic problems and coding solutions into a high-level language. The fundamental concepts of programming are provided through explanations and effects of commands and hands-on utilization of lab equipment to produce accurate outputs. Topics include program flow-charting, pseudo coding, and hierarchy charts as a means of solving problems. The course covers creating file layouts, print charts, program narratives, user documentation, and system flowcharts for business problems; algorithm development and review, flowcharting, input/output techniques, looping, modules, selection structures, file handling, control breaks, and offers students an opportunity to apply skills in a laboratory environment.

- Recommended Grade Level: 10, 11, 12
- Prerequisites: Introduction to Computer Science
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

DIGITAL APPLICATIONS AND RESPONSIBILITY (4528)

Has previously been known as Computer Applications and Digital Citizenship

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, 10, 11, 12
- Credits: 1 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas

ADVANCED DIGITAL APPLICATIONS AND RESPONSIBILITY (4528)

Computer Applications Advanced will provide critical technology skills to be successful in any post-secondary setting. Students will be introduced to the physical components and operation of computers. Technology is used to build students decision-making and problem-solving skills along with knowledge of industry standard software.

- Grade Level: 10, 11, 12
- Prerequisite: Computer Applications (Digital Applications and Responsibility or Digital Citizenship)
- **Dual Credit Option:** Vincennes University COMP 110 Intro to Computer Concepts – 3 credits, only juniors and seniors are eligible for dual credit
- Credits: 1 semester course, 1 credit

INTERACTIVE MEDIA I/II/III (5232)

Interactive Media prepares students for careers in business and industry working with interactive media products and services; which includes the entertainment industries. This course emphasizes the development of digitally generated or computer-enhanced products using multimedia technologies. Students will develop an understanding of professional business practices including the importance of ethics, communication skills, and knowledge of the “virtual workplace”.

- Grade Level: 10, 11, 12
- Prerequisite for Interactive Media I: Digital Applications and Responsibility, Interactive I is a prerequisite for Interactive Media II, Interactive Media II is a prerequisite for Interactive Media III
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

PRINCIPLES OF BUSINESS MANAGEMENT (4562)

Principles of Business Management focuses on the roles and responsibilities of managers as well as opportunities and challenges of ethically managing a business in the free enterprise system. Students will attain an understanding of management, team building, leadership, problem solving steps and processes that contribute to the achievement of organizational goals. The management of human and financial resources is emphasized.

- Grade Level: 10, 11, 12
- Prerequisite: Computer Applications (Digital Applications and Responsibility or Digital Citizenship)
- **Dual Credit Option:** Ivy Tech BUSN 101, Intro to Business – 3 credits
- Credits: 1 semester course, 1 credit per semester

ADMINISTRATIVE AND OFFICE MANAGEMENT (5268)

Administrative and Office Management prepares students to plan, organize, direct, and control the functions and processes of a firm or organization and to perform business-related functions. Students are provided opportunities to develop attitudes and apply skills and knowledge in the areas of business administration, management, and finance. Individual experiences will be based upon the student’s career and educational goals.

- Grade Level: 11, 12
- Prerequisites: Principles of Business Management
- **Dual Credit Option:** Ivy Tech BUSN 105 – Principles of Management – 3 credits
- Credits: 2 semester course, 2 semesters required, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas

Engineering Department

INTRODUCTION TO ENGINEERING DESIGN, PLTW (4812)

Introduction to Engineering Design is a fundamental pre-engineering course where students become familiar with the engineering design process. Students work both individually and in teams to design solutions to a variety of problems using industry standard sketches and current 3D design and modeling software to represent and communicate solutions. Students apply their knowledge through hands-on projects and document their work with the use of an engineering notebook. Students advance from completing structured activities to solving open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills. Ethical issues related to professional practice and product development are also presented.

- Recommended Grade Level: 9, 10, 11, 12
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

PRINCIPLES OF ENGINEERING, PLTW (4814)

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.

- Recommended Grade Level: 10, 11, 12
- Prerequisite: Introduction to Engineering Design and Algebra I
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

DIGITAL ELECTRONICS, PLTW (4826)

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.

- Recommended Grade Level: 11, 12
- Prerequisite: Introduction to Engineering Design, Principles of Engineering and Algebra I
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

AEROSPACE ENGINEERING (4816)

Aerospace Engineering should provide students with the fundamental knowledge and experience to apply mathematical, scientific, and engineering principles to the design, development, and evolution of aircraft, space vehicles and their operating systems. Emphasis should include investigation and research on flight characteristics, analysis of aerodynamic design, and impact of this technology on the environment. Classroom instruction should provide creative thinking and problem-solving activities using software that allows students to design, test, and evaluate a variety of air and space vehicles, their systems, and launching, guidance and control procedures.

- Recommended Grade Level: 11, 12
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

ROBOTICS DESIGN AND INNOVATION (4728)

Robotics Design and Innovation allows students to design, program, and test innovative technological designs related to robotic systems. Topics involve mechanics, pneumatics, control technologies, computer fundamentals, and programmable control technologies. Students design, build, and optimize robots to perform a variety of pre-designated tasks. Individuals or small teams may choose to participate in organized robotic competitions or develop their own events during the course. Through this course, students will investigate exciting career and collegiate programs of study.

- Recommended Grade Level: 9,10,11,12
- Credits: 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

English Department

ENGLISH 9 (1002)

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

- Recommended Grade Level: 9
- Credits: 2 semester course , 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

ENGLISH 9 HONORS (1002)

An integrated English, 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 persuasive compositions, and research reports. Students deliver grade appropriate oral presentations and access, analyze, and evaluate online information. In addition to the English 9 course requirements as outlined above, English 9 Honors will be aligned with Advanced Placement English standards as outlined at <http://apcentral.collegeboard.com/apc/public/courses/descriptions/index.html> to prepare students for success in Advanced Placement English courses in grades 11 and 12.

- Recommended Grade Level: 9
- Credits: 2 semester course , 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

ENGLISH 10 (1004)

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

- Recommended Grade Level: 10
- Prerequisite: English 9
- Credits: 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

ENGLISH 10 Honors (1004)

English 10 Honors, is a study of language, literature, composition and oral communication with a focus on exploring 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 persuasive compositions, research reports, business letters, and technical documents. Students deliver grade appropriate oral presentations and access, analyze, and evaluate online information. In addition to the English 10 course requirements described above, English 10 Honors will be aligned with Advanced Placement English standards to advance student skills beyond those acquired in English 9 Honors to further prepare students for success in Advanced Placement English courses in grades 11 and 12.

- Recommended Grade Level: 10
- Prerequisite: B or above in English 9 Honors or Teacher Recommendation
- Credits: 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

ENGLISH 11 (1006)

English 11 provides a survey of the literature produced in the United States from pre-Revolutionary times to the present. This course includes a study of the representative works of various literary genres that reflect the American culture. Students are also provided with the study of a variety of literary genres, such as drama, poetry, and prose, as well as Native American folk legends. Influences of classical literature can be experienced in the historical, literary, and cultural contexts. Quality works of various ethnic and cultural minorities, such as African-American writers, women writers, and Native American writers are included, as are the works of contemporary writers. Written and oral exercises require students to analyze and explain how their readings of literature, history, and culture are interconnected and distinctly American.

- Recommended Grade Level: 11
- Prerequisite: English 9 and English 10
- Credits: 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

AP ENGLISH LANGUAGE & COMPOSITION (1056)

English Language and Composition, Advanced Placement, is an advanced placement course based on content established by the College Board. An AP course in English Language and Composition engages students in becoming skilled readers of prose written in a variety of rhetorical contexts, and in becoming skilled writers who compose for a variety of purposes. Both their writing and their reading should make students aware of the interactions among a writer's purposes, audience expectations, and subjects as well as the way generic conventions and the resources of language contribute to effectiveness in writing.

- Recommended Grade Level: 11, 12
- Prerequisite: English 9 and English 10
- Credits: 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for grades 11 or 12 for all diplomas

ENGLISH 12 (1008)

This is a comparative literature course with an applied focus of professional communication. This style of writing is workplace and collegiate style writing. It is objective, about products or services, uses short sentences and paragraphs and denotative words. Professional communication is the type of written communication that you will be responsible for on the job, including memos, letters, reports, e-mail, proposals, instructions, and even web pages. This style of English Literature and Composition course is designed to engage you in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, you will deepen your understanding of the ways writers use language to provide both meaning and pleasure for their readers. Such close reading involves the experience of literature, the interpretation of literature, and the evaluation of literature. All these aspects of reading are important for a course in English Literature and Composition, and each corresponds to an approach to writing about literary works. To assess these various levels, students will write informal reader responses, workplace stylistic products, in class essays, and longer, more formal, analytical, interpretive, and evaluative essays that consider a work's structure, style, and themes as well figurative language, imagery, symbolism, and tone.

- Recommended Grade Level: 12
- Recommended Prerequisites: English 9, English 10, and English 11
- Credits: 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

AP ENGLISH LITERATURE & COMPOSITION (1058)

An advanced placement course based on content established by the College Board. An AP English course in Literature and Composition engages students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students consider a work's structure, style, and themes as well as such smaller-scale elements as the use of figurative language, imagery, symbolism, and tone. The course includes intensive study of representative works from various genres and periods, concentrating on works of recognized literary merit. Advanced Placement (AP) Courses are intended to be the equivalent to the comparable college level course.

- Recommended Grade Level: 12
- Prerequisites: AP English Language & Composition or teacher recommendation.
- Credits: 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for grades 11 or 12 all diplomas

CREATIVE WRITING (1092)

Using the writing process, students demonstrate a command of vocabulary, the nuances of language and vocabulary, English language conventions, an awareness of the audience, the purposes for writing, and the style of their own writing. CREATIVE WRITING PROJECT: Students complete a project, such as a short story, a narrative or epic poem, a persuasive speech or letter, a book review, a script or short play, or other creative compositions, which demonstrates knowledge, application, and writing progress in the Creative Writing course content.

- Recommended Grade Level: 10, 11, 12
- Credits: 1 semester course, 1 credit per semester

SPEECH (1076)

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

- Recommended Grade Level: 9, 10, 11, 12
- Credits: 1 semester course, 1 credit per semester

STUDENT MEDIA/NEWSPAPER (1086)

This course provides the study of and practice in gathering and analyzing information, interviewing, and note taking for the purpose of writing, editing and publishing. Marketing and advertising which demand time outside of class are required. Students will also be expected to attend a reasonable number of events to take photos and to report.

- Recommended Grade Level: 9, 10, 11, 12
- Prerequisite: Teacher Recommendation
- Credits: 2 semester course, 1 credit per semester
- The nature of this course allows for successive semesters of instruction at an advanced level, provided that defined standards are utilized.

STUDENT MEDIA/YEARBOOK (1086)

This course provides the study of and practice in gathering and analyzing information, interviewing, and note taking for the purpose of writing, editing and publishing. Marketing and advertising which demand time outside of class are required. Students will also be expected to attend a reasonable number of events to take photos and to report.

- Recommended Grade Level: 9, 10, 11, 12
- Prerequisite: Teacher Recommendation
- Credits: 2 semester course, 1 credit per semester
- The nature of this course allows for successive semesters of instruction at an advanced level, provided that defined standards are utilized.

THEATER ARTS (4242)

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.

- Recommended Grade Level: 9, 10, 11, 12
- 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

ADVANCED THEATER ARTS (4240)

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

- Recommended Grade Level: 10, 11, 12
- Prerequisites: Theatre Arts I with a C or higher and teacher recommendation
- 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

CONTEMPORARY POP LITERATURE (1054)

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

- Grade Level: 12
- Credits: 1 semester course, 1 credit per semester

Family and Consumer Science

CHILD DEVELOPMENT (5362)

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.

- Grade Level: 9, 10, 11, 12
- Credits: 1 credit per semester, 1 credit maximum
- Counts as a Directed Elective or Elective for all diplomas

ADVANCED CHILD DEVELOPMENT (5360)

Advanced Child Development is for those students interested in life foundations, academic enrichment, and/or careers related to knowledge of children, child development, and nurturing of children. This course addresses issues of child development from age 4 through age 8 (grade 3). It builds on the Child Development course, which is a prerequisite. Advanced Child Development includes the study of professional and ethical issues in child development; child growth and development; child development theories, research, and best practices; child health and wellness; teaching and guiding children; special conditions affecting children; and career exploration in child development and nurturing. A project-based approach that utilizes higher order thinking, communication, leadership, management, and fundamentals to college and career success is recommended in order to integrate these topics into the study of child development. Direct, concrete mathematics and language arts proficiencies will be applied. Service learning, introductory laboratory/field experiences with children in preschool and early elementary school settings, and other authentic applications are strongly recommended. This course provides a foundation for continuing and post-secondary education in all career areas related to children, child development, and nurturing of children.

- Grade Level: 10, 11, 12
- Prerequisite: Child Development with a grade of C or better
- Credits: 1 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas

INTRODUCTION TO FASHION & TEXTILES (5380)

Introduction to Fashion and Textiles is an introductory course for those students interested in academic enrichment or a career in the fashion, textile, and apparel industry. This course addresses knowledge and skills related to design, production, acquisition, and distribution in the fashion, textile, and apparel arena. The course includes the study of personal, academic, and career success; careers in the fashion,

textile, and apparel industry; factors influencing the merchandising and selection of fashion, textile, and apparel goods and their properties, design, and production; and consumer skills. A project-based approach integrates instruction and laboratory experiences including application of the elements and principles of design, aesthetics, criticism, history and production; selection, production, alteration, repair, and maintenance of apparel and textile products; product research, development, and testing; and application of technical tools and equipment utilized in the industry. Direct, concrete mathematics proficiencies will be applied. Service learning and other authentic applications are strongly recommended. This course provides the foundation for continuing and post-secondary education in fashion, textile, and apparel-related careers.

- Grade Level: 9, 10, 11, 12
- Credits: 1 semester course, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma

NUTRITION & WELLNESS (5342)

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, 10, 11, 12
- Credits: 1 credit per semester, 1 credit maximum
- Counts as a Directed Elective or Elective for all diplomas

ADVANCED NUTRITION & WELLNESS (5340)

Advanced Nutrition and Wellness is a course which provides an extensive study of nutrition. This course is recommended for all students wanting to improve their nutrition and learn how nutrition affects the body across the lifespan. Advanced Nutrition and Wellness is an especially appropriate course for students interested in careers in the medical field, athletic training and dietetics. This course builds on the foundation established in Nutrition and Wellness, which is a required prerequisite. This is a project-based course; utilizing higher-order thinking, communication, leadership and management processes. Topics include extensive study of major nutrients, nutritional standards across the lifespan, influence on nutrition/food choices, technological and scientific influences, and career exploration in this field. Laboratory experiences will be utilized to develop food handling and preparation skills; attention will be given to nutrition, food safety and sanitation. This course is the second in a sequence of courses that provide a foundation for continuing and post-secondary education in all career areas related to nutrition, food, and wellness.

- Grade Level: 10, 11, 12

- Prerequisite: Nutrition and Wellness with a grade of C or better
- Credits: 1 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas

INTRODUCTION TO HOUSING & INTERIOR DESIGN (5352)

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 including aesthetics, criticism, history and production, are addressed. Direct, concrete mathematics proficiencies will be applied. A project based approach will be utilized requiring higher order thinking, communication, leadership and management processes as housing and interior design content is integrated into the design of interior spaces while meeting specific project criteria. This course provides the foundation for further study and careers in the architecture, construction, housing, interior design, and furnishings industries.

- Grade Level: 9, 10, 11, 12
- 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

EDUCATION PROFESSIONS I (5408)

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.

- Grade Level: 11,12
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

Health Science Department

MEDICAL TERMINOLOGY (5274)

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: 10, 11, 12
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, maximum of 2 credits
- Counts as a Directed Elective or Elective for all diplomas

PRINCIPLES OF BIOMEDICAL SCIENCE – PLTW (5218)

Students investigate the human body systems and various health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. They determine the factors that led to the death of a fictional person, and investigate lifestyle choices and medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, medicine, research processes, and bioinformatics. Key biological concepts including homeostasis, metabolism, inheritance of traits, and defense against disease are embedded in the curriculum. Engineering principles including the design process, feedback loops, and the relationship of structure to function are also incorporated. This course is designed to provide an overview of all the courses in the Biomedical Sciences program and lay the scientific foundation for subsequent courses. Taking the PLTW EOC Exam is mandatory.

- Recommended Grade Level: 9, 10, 11, 12
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Core 40 Science requirement for all diplomas

HUMAN BODY SYSTEMS - PLTW (5216)

Students examine the interactions of body systems as they explore identity, communication, power, movement, protection, and homeostasis. Students design experiments, investigate the structures and functions of the human body, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration. Exploring science in action, students build organs and tissues on a skeletal manikin, work through interesting real world cases and often play the role of biomedical professionals to solve medical mysteries. Taking the PLTW EOC Exam is mandatory.

- Recommended Grade Level: 10, 11, 12
- Prerequisites: Principles of the Biomedical Sciences (earning a C or higher in both semesters of PBS and Teacher Recommendation)
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

- Fulfills a Core 40 Science requirement for all diplomas

MEDICAL INTERVENTION – PLTW (5217)

Students investigate the variety of interventions involved in the prevention, diagnosis and treatment of disease as they follow the lives of a fictitious family. The course is a “How-To” manual for maintaining overall health and homeostasis in the body as students explore: how to prevent and fight infection; how to screen and evaluate the code in human DNA; how to prevent, diagnose and treat cancer; and how to prevail when the organs of the body begin to fail. Through these scenarios, students are exposed to the wide range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. Each family case scenario introduces multiple types of interventions and reinforces concepts learned in the previous two courses, as well as presenting new content. Interventions may range from simple diagnostic tests to treatment of complex diseases and disorders. These interventions are showcased across the generations of the family and provide a look at the past, present and future of biomedical science. Lifestyle choices and preventive measures are emphasized throughout the course as well as the important roles scientific thinking and engineering design play in the development of interventions of the future. Taking the PLTW EOC Exam is mandatory.

- Recommended Grade Level: 11, 12
- Required Prerequisites: Principles of the Biomedical Sciences and Human Body Systems with a grade of C or better in both semesters of HBS and teacher recommendation
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Core 40 Science requirement for all diploma types

BIOMEDICAL INNOVATION – PLTW (5219)

In this capstone course, students apply their knowledge and skills to answer questions or solve problems related to the biomedical sciences. Students design innovative solutions for the health challenges of the 21st century as they work through progressively challenging open-ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering, and public health. They have the opportunity to work on an independent project and may work with a mentor or advisor from a university, hospital, physician’s office, or industry. Throughout the course, students are expected to present their work to an adult audience that may include representatives from the local business and healthcare community. There is not a EOC for this course, however, students must earn an A or B both semesters and have a recommendation from the teacher to be eligible for college credit.

- Recommended Grade Level: 12
- Required Prerequisites: Principles of the Biomedical Sciences, Human Body Systems and Medical Interventions with a grade of B or better in both semesters of MI and teacher recommendation
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

Industrial Technology

ARCHITECTURAL DRAFTING AND DESIGN I (5640)

Replaces Civil Engineering and Architecture

Architectural Drafting and Design I gives students a basic understanding of the detailing skills commonly used by drafting technicians. Areas of study include: lettering, sketching, and the proper use of equipment. This course includes the creation and interpretation of commonly used construction documents. Methods of geometric construction, three-dimensional drawing techniques, and sketching will be taught as well as elementary aspects of residential design and site work. Areas of emphasis will include print reading and drawing. This course also provides students with a basic understanding of the features and considerations associated with the operation of a computer-aided design (CAD) system. Students will gain valuable hands-on experience with Auto CAD. They will be expected to complete several projects relating to command topics.

- Grade Level: 10,11, 12
- Credits: 2 semester course, 2 semesters required, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas

CONSTRUCTION SYSTEMS (4782)

Construction Systems is a course that specializes in how people use modern construction systems and the management of resources to efficiently produce a structure on a site. Students will explore the application of tools, materials, and energy in designing, producing, using, and assessing the construction of structures. Classroom activities introduce students to the techniques used in applying construction technology to the production of residential, commercial, and industrial buildings in addition to civil structures. Students learn how architectural ideas are converted into projects and how projects are managed during a construction project in this course.

- Recommended Grade Level: 9, 10, 11, 12
- Credits: 1 semester course, 1 credit per semester, 1 credit maximum
- Counts as a Directed Elective or Elective for all diplomas

INTRODUCTION TO CONSTRUCTION (4792)

Introduction to Construction is a course that will offer hands-on activities and real world experiences related to the skills essential in residential, commercial and civil building construction. During the course students will be introduced to the history and traditions of construction trades. The student will also learn and apply knowledge of the care and safe use of hand and power tools as related to each trade. In addition, students are introduced to blueprint reading, applied math, basic tools and equipment, and safety. Students will demonstrate building construction techniques, including concrete and masonry, framing, electrical, plumbing, dry walling, HVAC, and painting as developed locally in accordance with available space and technologies. Students learn how architectural ideas are converted into projects and how projects are managed during a construction project in this course. Students study construction technology topics such as preparing a site, doing earthwork, setting footings and foundations, building the superstructure, enclosing the structure, installing systems, finishing the structure, and completing the site. Students also investigate topics related to the purchasing and maintenance of structures, special purpose facilities, green construction and construction careers.

- Recommended Grade Level: 10, 11, 12

- Prerequisites: Construction Systems with a grade of C or better
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

INTRODUCTION TO TRANSPORTATION (4798)

Replaces Transportation Systems

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: 10, 11, 12
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

INTRODUCTION TO ADVANCED MANUFACTURING AND LOGISTICS (4796)

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: 9, 10, 11, 12
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

CONSTRUCTION TRADES I (5580)

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: 11, 12
- Prerequisite: Completion of Construction Systems and Introduction to Construction with a minimum grade of C. Submission of an application and participation in an interview with the Building Trades board is required.
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

CONSTRUCTION TRADES II (5578)

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

- Recommended Grade Level: 12
- Required Prerequisites: Completion of Construction Trades I with a minimum grade of B.
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

Internship/Capstone Courses

Work Based Learning Capstones (5480, 5974)

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.

- Grade Level: 11, 12
- 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

Math Department

ALGEBRA I (2520)

Algebra I provides a formal development of the algebraic skills and concepts necessary for students to succeed in advanced courses. In particular, the instructional program in this course provides for the use of algebraic skills in a wide range of problem-solving situations. The concept of function is emphasized throughout the course. Topics include: (1) operations with real numbers, (2) linear equations and inequalities, (3) relations and functions, (4) polynomials, (5) algebraic fractions, (6) nonlinear equations.

- Grade Level: 9, 10, 11, 12
- Credits: 2 semester course, 1 credit per semester
- Counts as a Math course for all diplomas

ALGEBRA II (2522)

Algebra II is a course that extends the content of Algebra I and provides further development of the concept of a function. Topics include: (1) relations, functions, equations and inequalities; (2) polynomials; (3) algebraic fractions; (4) logarithmic and exponential functions; (5) sequences and series.

- Grade Level: 10, 11, 12
- Prerequisite: Algebra I credit
- Credits: 2 semester course, 1 credit per semester
- Counts as a Math course for all diplomas

ALGEBRA II HONORS (2522)

The Algebra II Honors class includes all the topics of the Algebra II course with a special emphasis on application and enrichment in order to develop depth of understanding algebra topics. The expectations and pace of this course will be demanding but will increase the preparedness of students who desire to reach higher level math courses such as Pre-Calculus and Calculus.

- Grade Level: 10, 11, 12
- Prerequisite: Honors Geometry with a grade of A or B for both semesters or grade of A/B for both semesters of Geometry and Algebra I
- Credits: 2 semester course, 1 credit per semester
- Counts as a Math course for all diplomas

GEOMETRY (2532)

Geometry students examine the properties of two-and three-dimensional objects, proof and logic, as well as investigative strategies in drawing conclusions. Properties and relationships of geometric objects include the study of: (1) points, lines, angles and planes; (2) congruency and similarity; (3) measurement; (4) analytic geometry; (5) polygons, with a special focus on quadrilaterals, triangles, right triangles; (6) circles; and (7) polyhedron.

- Grade Level: 9, 10, 11, 12
- Prerequisite: Algebra I
- Credits: 2 semester course, 1 credit per semester
- Counts as a Math course for all diplomas

GEOMETRY HONORS (2532)

The Geometry Honors class includes all the topics of the Geometry course with a special emphasis on application and enrichment in order to develop depth of understanding Geometry topics. The expectations and pace of this course will be demanding but will increase the preparedness of students who desire to reach higher level math courses such as Pre-Calculus and Calculus.

- Grade Level: 9, 10, 11, 12
- Prerequisite: Algebra I with a minimum grade of B for both semesters
- Credits: 2 semester course, 1 credit per semester
- Counts as a Math course for all diplomas

FINITE MATHEMATICS (2530)

This is a course analyzing Venn diagrams, applying the counting principles of permutations and combinations, computing the probabilities of events with finitely many outcomes (including conditional and Bayes probabilities), solving systems of linear equations, solving linear programming problems, and formulating and analyzing Markov chains. Mathematical modeling courses provide rigorous instruction in fundamental mathematical concepts and skills presented in the context of real-world applications. The modeling skills provide analytical methods for approaching problems students encounter in future endeavors.

- Grade Level: 11, 12
- Prerequisites: Geometry and Algebra II
- Dual Credit Option: IUSB MATH M118 – 3 credits, an application must be filled out and course must be paid for to receive Concurrent Enrollment credit
- Credits: 2 semester course, 1 credit per semester
- Counts as a Math course for all diplomas

AP STATISTICS (2570)

AP Statistics is a course based on the content established and copyrighted by the College Board. The AP Statistics course is equivalent to a one-semester, introductory, non-calculus based college course in statistics. The course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes in the AP Statistics course: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding.

- Grade Level: 11, 12
- Prerequisite: Geometry and Algebra II
- Credits: 2 semester course, 1 credit per semester
- Counts as a Mathematics Course for all diplomas

PRE-CALCULUS (2564)

Pre-Calculus blends together all of the concepts and skills that must be mastered prior to enrollment in a college-level calculus course. The course includes the study of (1) relations and functions, (2) exponential and logarithmic functions, (3) sequences and series and (4) data analysis.

- Grade Level: 11, 12
- Prerequisites: Geometry and Algebra II

- **Dual Credit Option:** PNW MA 153 – 3 credits, an application be filled out and course must be paid for to receive Concurrent Enrollment Credit
- Credits: 1 semester course, 1 credit
- Counts as a Math course for all diplomas

TRIGONOMETRY (2566)

Trigonometry is a course that provides students with the skills and understandings that are necessary for advanced manipulation of angles and measurement. The course includes the study of (1) trigonometry in triangles, (2) trigonometric functions, (3) trigonometric identities and equations, (4) polar coordinates and complex numbers.

- Grade Level: 11, 12
- Prerequisites: Geometry and Algebra II
- **Dual Credit Option:** PNW MA 154 – 3 credits, an application be filled out and course must be paid for to receive Concurrent Enrollment Credit
- Credits: 1 semester course, 1 credit
- Counts as a Math course for all diplomas

PROBABILITY & STATISTICS (2546)

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.

- Grade Level: 11, 12
- Prerequisite: Algebra II
- Credits: 1 semester course, 1 credit per semester
- Counts as a Mathematics Course for all diplomas

AP CALCULUS AB (2562)

Calculus AB, AP is a course that provides students with the 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 connection among these representations also are important. Topics include: (1) functions, graphs, and limits (2) derivatives and (3) integrals.

- Grade Level: 12
- Prerequisite: Pre-Calculus with a grade of A/B for both semesters
- Credit: 2 semester course, 1 credit per semester
- Counts as a Math course for all diplomas

CCR BRIDGE: MATH READY

CCR Bridge: Math Ready is a course designed to reinforce Algebra I, Geometry, Algebra II and Statistics skills necessary for an entry-level college math course. The course focuses on the following: (1) understanding math concepts (not memorizing procedures), (2) learning the content behind procedures, (3) learning higher order thinking skills necessary to apply math skills, functions and concepts. This course is not designed to prepare students for college-level math in STEM majors.

- Grade Level: 12
- Prerequisites: In grade 11, students who have not passed the Grade 10 Math ISTEP+ (or old Algebra 1 ECA) and have scored below a 45 on the PSAT should be placed in the Math Ready course
- Credits: 2 semester course, 1 credit per semester
- Counts as a Mathematics Course for all diplomas

ADVANCED MATHEMATICS – APPLIED TECHNICAL MATH

This course is designed to prepare students for entry into a technical field such as construction, plumbing, electrical or a trade-based apprenticeship. The course will help students develop mathematical reasoning and real-world skills in analyzing verbal and written descriptions, translating them into algebraic, geometric and trigonometric statements and applying them to solve problems in technical fields and work-related situations. The course will include: (1) Geometry: perimeter, area, volume and surface area formulas including those related to circles, linear equations in two dimensions, common constructions using a straightedge and compass, angles of a regular polygon, angles relating to parallel lines, similar figures and the Pythagorean theorem, (2) Trigonometry: Determine sine, cosine and tangent from direct measurements in right triangles, solve for unknown side lengths and angles including using Law of Sines and Law of Cosines where appropriate, (3) Conversion: Ability to recognize and operate between different measurement systems, (4) Algebra: Use direct and indirect variation, solve problems involving algebraic, geometric, trigonometric and statistical formulas using one variable and solve problems for any variable, (5) Math Related Job Skills: Translate verbal and written descriptions into mathematical statements that solve real-world problems, estimate and calculate values and use a scientific calculator proficiently.

- Grade Level: 12
- Credits: 2 semester course, 1 credit per semester
- Counts as a Math credit, but does not count toward the Academic Honors diploma or Technical Honors diploma

Music Department

HIGH SCHOOL CONCERT BAND – SYMPHONIC BAND (4168) and WIND ENSEMBLE (4170)

Students taking this course are provided with a balanced and comprehensive study of music through this concert band course, are able to develop skills in the psychomotor, cognitive, and affective domains. Solo and ensemble activities are designed to enhance elements of individual musicianship. This organization forms the core of the marching band and concert ensembles. The Marching Cougars perform in parades, all home football games and marching contests. Depending on the number of enrolled students, chair placement auditions may occur, dictating a split into two ensembles entitles the Symphonic Band and Wind Ensemble. The Symphonic Band will contain students that are in need of additional assistance, instruction and guidance on their instruments, whereas the Wind Ensemble will contain the most proficient skilled students in their respective instrument sections. Repertoire performed by these ensembles consists of standard marches, popular music, classical selections, and contemporary literature. Additional performing possibilities include pep band for basketball games, pit orchestra to accompany musical stage productions, and back-up bands to accompany the competitive show choirs.

- Grade Level: 9, 10, 11, 12
- Prerequisite: Student ability to demonstrate appropriate competency
- Credits: 2 semester course, 1 credit per semester

JAZZ BAND (4164)

Students taking this course develop musicianship and specific performance skills through individual and group settings for the study and performance of the varied styles of instrumental jazz. The instruction includes the study of jazz history, jazz form, and stylistic elements of this genre. Students develop and enhance these creative skills through) improvisation, composition, arranging, performance, listening, and) musical analysis. Instruction has been designed to enable students to connect, examine, define, refine, and integrate music study into other subject areas. Students are provided with opportunities to experience live performances by professionals outside of the school day. Time before/after the school day will be required for rehearsals. In addition, a limited number of extra public performances may serve as a culmination and assessment of daily rehearsal and music goals. Students must participate in said performance opportunities in order to extend and support all previous learning. Students can expect to learn and perform different jazz styles in small combo and full ensemble settings, while also focusing on the development and comprehension of individual improvisational skills.

- Grade Level: 9, 10, 11, 12
- Prerequisite: High school level performing skills
- Credits: 2 semester course, 1 credit per semester
- Fulfills requirement for 1 of 2 Fine Arts credits for the Core 40 with Academic Honors diploma if students are enrolled in another band course

BEGINNING GUITAR METHODS (4162)

Beginning Guitar Methods is based on the Indiana Academic Standards for High School Music Technology and Instrumental Music. Students taking this course are offered beginning guitar classes in order to develop music proficiency and musicianship. Students will perform with proper posture, hand position, fingering, rhythm, and string articulation. By the end of the course, they will be able to

compose and improvise melodic and harmonic material. They will also be able to create/perform simple accompaniments, along with listen to, analyze, sight-read, and study a variety of basic to intermediate guitar literature. Finally, students will study the elements of music as exemplified in a variety of styles and make interpretive decisions based on these studies. The main goal in this course is to provide students a basic to intermediate understanding of the standard acoustic guitar, how to properly play the instrument given specific techniques and how to read standard tablatures and notation provided in most musical contexts.

- Grade Level: 9, 10, 11, 12
- Credits: 1 semester, 1 credit

PERCUSSION ENSEMBLE (4162)

This course is designed for students who have experience playing percussion instruments for at least one year in middle school band courses. Students will develop advanced techniques of performance, notation reading, and musicality using a wide variety of percussion instruments and musical styles. Students will develop techniques for playing all percussion instruments in a variety of musical settings including marching band, concert band, jazz band, small ensembles, and indoor drum line. Course goals include (1) To develop advanced dexterity through proper sticking techniques. (i.e. rudiments), (2) To become advanced readers of music including rhythmic and melodic notation, (3) To learn advanced mallet techniques including four mallets, and an understanding of all 12 major keys, (4) To identify and respond appropriately to all musical nomenclature relating to percussion music and instruments in English, Italian, French, and German, (5) To develop proper technique for playing all common percussion instruments, (6) To develop tuning skills for the tympani, (7) To broaden students familiarity with percussion ensemble music and small group performances, (8) To perform percussion parts with a concert band and marching band, (9) To develop an understanding of proper care and maintenance of all percussion instruments and (10) To prepare for district honor band auditions and college scholarship auditions.

- Grade Level: 9, 10, 11, 12
- Prerequisite: Experience playing percussion instruments
- Credits: 2 semester course, 1 credit per semester

ADVANCED WOMEN'S CHOIR – SING SENSATION (4188)

Sing Sensation is an all-female ensemble. Members are accepted into this choir by audition only. Music will consist of a higher difficulty, and will continue developing an already established understanding of choral technique, sight-reading, and choreography. Sing Sensation will perform in numerous concerts and competitions, require outside rehearsals on a regular basis, and participate in various community events.

- Grade Level: 9, 10, 11, 12
- Prerequisite: Audition required
- Credits: 2 semester course, 1 credit per semester

ADVANCED MIXED CHOIR – INNOVATION (4180)

Innovation is a mixed show choir and concert choir. Music will consist of a higher difficulty, and will address a solid understanding of choral technique, sight-reading, and movement/choreography. This course also stresses the importance of singing, dancing, and acting according to multiple interpretations

of music. Innovation will perform in numerous concerts, require outside rehearsals on a regular basis, and participate in various community events.

- Grade Level: 9, 10, 11, 12
- Prerequisite: Audition required
- Credits: 2 semester course, 1 credit per semester

INTERMEDIATE WOMEN'S CHOIR - SAPPHIRE (4186)

Sapphire is an all-female show choir and concert choir. This course stresses the continued development of musicianship and performance skills as a chorus member, and serves as a choir that prepares you for more advanced musical skills. Students will further knowledge of choral technique, sight-reading, and music vocabulary. A small amount of concerts throughout the year will be required of each chorus member, and a small amount of extra rehearsal time will be scheduled.

- Grade Level: 9, 10, 11, 12
- Prerequisite: Audition required
- Credits: 2 semester course, 1 credit per semester

BEGINNING WOMEN'S CHOIR (4182)

Beginning Women's Choir is a beginning all-female ensemble. Members of this choir will learn to handle vocal developments that occur in the teenage female singer. Women's Choir will develop a solid understanding of pitch, rhythm, and musical interpretation. Members will also learn the basics of music theory, and incorporate those lessons in assigned repertoire. Women's choir is a class-choir. This choir will perform in several concerts throughout the year and will be required to attend some after school rehearsals.

- Grade Level: 9, 10, 11, 12
- Credits: 2 semester course, 1 credit per semester

BEGINNING MEN'S CHOIR – MUSIC MEN (4182)

Music Men is an all-male ensemble. Members of this choir will learn to handle vocal developments that occur in the teenage male singer. Music Men will develop a solid understanding of pitch, rhythm, and musical interpretation. Members will also learn the basics of music theory, and incorporate those lessons into performances. Music Men will perform in a small amount of concerts throughout the year, and various rehearsals will be required outside of class time.

- Grade Level: 9, 10, 11, 12
- Credits: 2 semester course, 1 credit per semester

MUSIC THEORY (4208)

Music Theory is a class that will expand a trained musician's knowledge of music fundamentals and advanced theoretical concepts. Students will learn to master basic melodic and chord construction, dictations of rhythmic and harmonic varieties, and further their understanding of music vocabulary. Prerequisites include the ability to demonstrate proficiency on a musical instrument-or voice at the appropriate high school level. Students successfully completing this course will have the skills necessary to pass the music theory section of the college music admission test.

- Grade Level: 10, 11, 12

- Prerequisite: Teacher recommendation from Band or Choir director
- 1 semester course, 1 credit
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills requirement for 1 to 2 Fine Arts credits for Core 40 with Academic Honors diploma

MUSIC HISTORY & APPRECIATION (4206)

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. They will also learn about the elements of music to read and notate at a basic level of understanding. Activities include analyzing and describing music; evaluating music and music performances, understanding relationships between music and the other arts, as well as disciplines outside of the arts, and reading and notating music.

- Grade Level: 9, 10, 11, 12
- 1 semester course, 1 credit
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma

Physical Education and Health Department

PHYSICAL EDUCATION I (3542)

Physical Education I continues the emphasis on health-related fitness and developing the skills and habits necessary for a lifetime of activity. This program includes skill development and the application of rules and strategies of complex difficulty. Ongoing assessment includes both written and performance-based skill evaluations. Physical Education class provides the opportunity for students to express themselves through varied team and individual physical activities and classroom work. We will introduce and practice drills and skills for the following activities: golf, archery, swimming, aerobics, tennis, cross country and team sports which include touch football, basketball, volleyball, softball, hockey, and soccer. Students receiving an A or B in this class may choose from all elective classes the next year if they wish.

- Grade Level: 9, 10
- Credits: 1 semester course, 1 credit maximum
- Fulfills part of the Physical Education requirement for all diplomas

PHYSICAL EDUCATION II (3544)

Physical Education II emphasizes a personal commitment to lifetime activity and fitness for enjoyment, challenge, self-expression, and social interaction. This course provides students with opportunities to achieve and maintain a health-enhancing level of physical fitness and increase their knowledge of fitness concepts. It includes at least three different movement forms without repeating those offered in Physical Education I.

- Grade Level: 10, 11
- Credits: 1 semester course, 1 credit maximum
- Fulfills part of the Physical Education requirement for all diplomas

HEALTH & WELLNESS EDUCATION (3506)

High School health education provides the basis for continued methods of developing knowledge, concepts, skills, behaviors, and attitudes related to student health and well-being. This course assists students in understanding that health is a lifetime commitment by analyzing individual risk factors and health decisions that promote health and prevent disease. This course is designed to acquaint the student with the body and its functions; to present information beneficial to the physical, mental, social, and emotional wellness of the individual. The course will cover general rules of safety for home, school, work, and community activities. An intense study in alcohol, drugs, and tobacco will be presented; and the course will acquaint the students with physical and social problems that exist with substance abuse. A comprehensive study of personality development in relationship to emotions, stress, and mental disorders will be discussed. The class will study relationships and involvement with family, friends, and dating partners. Information concerning sexually transmitted diseases, birth control, and AIDS will also be covered. The students will learn the benefits of basic fitness and its relationship to exercise and nutritional needs. The program on health helps students develop the skills they need to cope within a world of complex health concerns. Our perspectives on health emphasize the importance of responsible decision-making in relation to a student's overall wellness.

- Grade Level: 10, 11, 12
- Credits: 1 semester course, 1 credit maximum

PHYSICAL EDUCATION ELECTIVE - ATHLETIC DEVELOPMENT/ WEIGHTS (3560)

Athletic Development/Weight Training is an intensified program in muscular development through the use of free weights and the Universal Weight Machine. Emphasis is placed on cardiovascular endurance, flexibility, strength, power, body development, and basic physiology. Nutritional aspects of muscular growth will also be emphasized.

- Grade Level: 9, 10, 11, 12
- Prerequisite: PE I
- Credits: 1 semester course, 1 credit, maximum of 8 credits
- Counts as an elective requirement for all diplomas

PHYSICAL EDUCATION ELECTIVE – LIFELINE (3560)

Elective Physical Education– Lifeline promotes lifetime sport and recreational activities and provides an opportunity for an in-depth study in specific areas. In addition, different lifetime fitness concepts will be emphasized.

- Grade Level: 10, 11, 12
- Prerequisite: PE I
- Credits: 1 semester course, 1 credit, maximum of 8 credits
- Counts as an elective requirement for all diplomas

Science Department

BIOLOGY (3024)

Biology I provides, through regular laboratory and field investigations, a study of the structures and functions of living organisms and their interactions with their environment. At a minimum, this study explores the functions and processes of cells, tissues, organs, and systems within various species of living organisms and the roles and interdependencies of organisms within populations, communities, ecosystems, and the biosphere. Students have opportunities to: (1) gain an understanding of the history of the development of biological knowledge, (2) explore the uses of biology in various careers, and (3) cope with biological questions and problems related to personal needs and social issues.

- Grade Level: 9, 10, 11, 12
- Credits: 2 semester course, 1 credit per course
- Fulfills the Biology requirement for all diplomas

BIOLOGY HONORS (3024)

This course covers the same material as Biology I, but at a greater depth and with greater emphasis on experimental design, scientific writing, and quantitative data analysis. The purpose of Honors Biology I is to prepare students for AP science courses. Students who are strong in science should consider taking this course.

- Grade Level: 9
- Credits: 2 semester course, 1 credit per course
- Fulfills the Biology requirement for all diplomas

AP BIOLOGY (3020)

Advanced Placement Biology is a course based on the content established by the College Board. Topics include: (1) molecules and cells: chemistry of life, cells, cellular energetics; (2) heredity and evolution: heredity molecular genetics, evolutionary biology; and (3) organisms and populations: diversity of organisms, structure and function of plants and animals, ecology. The major themes of the course include: science as a process, evolution, energy transfer, continuity and change, relationship of structure to function, regulation, interdependence in nature and science, technology, and society.

- Grade Level: 11, 12
- Prerequisites: Biology and Chemistry
- Credits: 2 semester course, 1 credit per semester
- Counts as a Science Course for all diplomas

CHEMISTRY I (3064)

Chemistry I allows students to synthesize useful models of the structure of matter and the mechanisms of its interactions through laboratory investigations of matter and its chemical reactions. Chemistry is designed for students who wish to attain an understanding of the fundamentals used when evaluating chemical problems. Topics such as the structure of matter, kinetic theory of gases, chemical bonding, naming chemical formulas, atomic structure, and acid and base chemistry are presented in lectures and illustrated by many exercises and experiments throughout the course.

- Grade Level: 10, 11, 12

- Prerequisites: Algebra I and Biology
- Credits: 2 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Core 40 science (physical) course requirement for all diplomas

AP CHEMISTRY (3060)

AP Chemistry is a course based on the content established and copyrighted 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: Chemistry I with a minimum grade of B both semesters and Algebra II (Algebra II may be taken concurrently)
- Dual Credit Option: PNW CHEM 115 and 116 – 8 credits, an application must be filled out and course must be paid for to receive Concurrent Enrollment credit
- Credits: 2 semester course, 1 credit per semester
- Counts as a Science Course for all diplomas

ANATOMY & PHYSIOLOGY (5276)

Anatomy & Physiology is a course in which students investigate concepts related to Health Science, with emphasis on interdependence of systems and contributions of each system to the maintenance of a healthy body. It introduces students to the cell, which is the basic structural and functional unit of all organisms, and covers tissues, integument, 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: 11, 12
- Prerequisites: Biology and Chemistry with minimum grades of C
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Core 40 Science course requirement for all diplomas

EARTH AND SPACE SCIENCE (3044)

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: 10, 11, 12
- Credits: 2 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Core 40 science course requirement for all diplomas

ENVIRONMENTAL SCIENCE (3010)

Environmental Science is an interdisciplinary course that integrates biology, earth science, chemistry, and other disciplines. Students enrolled in this course conduct in-depth scientific studies of ecosystems, population dynamics, resource management, and environmental consequences of natural and anthropogenic processes. Students formulate, design, and carry out laboratory and field investigations as an essential course component. Students completing Environmental Science, acquire the essential tools for understanding the complexities of national and global environmental systems.

- Grade Level: 11, 12
- Credits: 2 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Core 40 science (life) course requirement for all diplomas

AP ENVIRONMENTAL SCIENCE (3012)

AP Environmental Science is a course based on content established and copyrighted 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
- Prerequisite: Biology and Chemistry I with a minimum grade of C in both semesters
- Credits: 2 semester course, 1 credit per semester
- Counts as a Science Course for all diplomas

INTEGRATED CHEMISTRY - PHYSICS (3108)

Integrated Chemistry-Physics is a course in which students explore fundamental chemistry and physics principles. Students enrolled in this course examine the structure and properties of matter, chemical reactions, forces, motion, and the interactions between energy and matter. Working in the laboratory environment, students investigate the basics of chemistry and physics in solving real-world problems that may have personal or social consequences beyond the classroom.

- Recommended Grade Level: 10, 11, 12
- Prerequisite: Algebra I (may be taken concurrently with this course)
- Credits: 2 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Core 40 science (physical) course requirement for all diplomas

PHYSICS I (3084)

Physics I aids students in synthesizing the fundamental concepts and principles concerning matter and energy through the laboratory study of mechanics, wave motion, sound, light, electricity, magnetism, electromagnetism, and atomic and nuclear physics. Physics is the most fundamental of the sciences. It deals with the behavior and structure of matter. The origin of the universe, expansion of space, general theory of relativity, black holes and curved space, birth and death of stars. Lab work is required and problem solving skills are emphasized.

- Grade Level: 11, 12

- Prerequisites: Grade of B or better in Geometry, grade of C+ or better in Algebra II or taken concurrently
- Credits: 2 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Core 40 science (physical) course requirement for all diplomas

AP PHYSICS I (3080)

AP Physics1 is a course based on the content established and copyrighted by the College Board. AP Physics 1: Algebra-based 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.

- Grade Level: 11, 12
- Prerequisite: completion of Algebra II and concurrent enrollment in Pre- Calculus is strongly recommended
- Credits: 2 semester course, 1 credit per semester
- Counts as a Science Course for all diplomas

AP PHYSICS II (3081)

AP Physics2 is a course based on the content established and copyrighted by the College Board. AP Physics 2: Algebra-based is equivalent to a second-semester college course in algebra-based physics. The course covers fluid mechanics; thermodynamics; electricity and magnetism; optics; atomic and nuclear physics.

- Grade Level: 11, 12
- Prerequisite: AP Physics 1: Algebra-based with a grade of C or better in both semesters, completion of Algebra II and concurrent enrollment in Pre-Calculus or AP Calculus AB is strongly recommended
- Credits: 2 semester course, 1 credit per semester
- Counts as a Science Course for all diplomas

Social Studies Department

WORLD HISTORY AND CIVILIZATION (1548)

World History and civilization provides for a study of selected world cultures, past and present. The content of this course provides a basis for students to compare and analyze patterns of culture, emphasizing both the diversity and commonality of human experience and behavior. This course emphasizes the interaction of local cultures with the natural environment, as well as the connections among civilizations from earliest times to the present. This course traces the development of human culture from its beginning to the present, viewing the diverse political, religious, social, and economic systems found in the history of man.

- Grade Level: 9, 10, 11, 12
- Credits: 2 semester course, 1 credit per semester
- Counts as an Elective for all diplomas
- Fulfills the Geography History of the World/World History and Civilization graduation requirement for all diplomas

AP WORLD HISTORY (1576)

AP World History is a course based on the content established and copyrighted by the College Board. AP World History focuses on developing students' abilities to think conceptually about world history from approximately 8000 BCE to the present and apply historical thinking skills as they learn about the past. Five themes of equal importance — focusing on the environment, cultures, state-building, economic systems, and social structures — provide areas of historical inquiry for investigation throughout the course. AP World History encompasses the history of the five major geographical regions of the globe: Africa, the Americas, Asia, Europe, and Oceania, with special focus on historical developments and processes that cross multiple regions.

- Grade Level: 9, 10, 11, 12
- Prerequisite: Teacher approval and a 3.0 GPA or higher
- Students should be able to read a college level textbook and write grammatically correct, complete sentences.
- Credits: 2 semester course, 1 credit per semester
- Fulfills a Social Studies requirement for all diplomas

UNITED STATES HISTORY (1542)

United States History is a study of our country's history, beginning with early exploration and progressing to the present. Emphasis is made, whenever possible, to present our history in relation to the present-day United States. United States History emphasizes national development in the late nineteenth and the twentieth centuries and builds upon concepts developed in previous studies of American history. Students in this course also identify and review significant events, figures and movements in the early development of the nation. After providing such a review, the course gives major emphasis to the interaction of historical events and geographic, social, and economic influences on national development in the late nineteenth and twentieth centuries. A chronological, topical, or comparative approach can be used in developing themes from America's past as they relate to the life in Indiana and the US today.

- Grade Level: 11, 12

- Credits: 2 semester course, 1 credit per semester
- Fulfills the US History requirement for all diplomas

AP UNITED STATES HISTORY (1562)

AP United States History is a course based on the content established and copyrighted by the College Board. AP United States History focuses on developing students' abilities to think conceptually about U.S. history from approximately 1491 to the present and apply historical thinking skills as they learn about the past. Seven themes of equal importance — identity; peopling; politics and power; work, exchange, and technology; America in the world; environment and geography; and ideas, beliefs, and culture — provide areas of historical inquiry for investigation throughout the course. These require students to reason historically about continuity and change over time and make comparisons among various historical developments in different times and places.

- Grade Level: 11, 12
- Prerequisite: A minimum GPA of 3.0. Students should be able to read a college level textbook and write grammatically correct, complete sentences.
- Credits: 2 semester course, 1 credit per semester
- Fulfills the US History requirement for all diplomas

GEOGRAPHY & HISTORY OF THE WORLD (1570)

World Geography provides an opportunity to study the interaction of humans and their environment in space and time. This course helps students understand global patterns of physical and cultural characteristics. The study of cultural settings should also include political structures, ways of life, customs, and past events that have influenced or have been influenced by the environment. World Geography provides the opportunity to study the five basic geographic themes of: (1) location, (2) place, (3) relationships within places, (4) movement, and (5) regions as they apply to selected areas of the world. Regions selected for study will vary but should include examples from each continent. These studies focus upon the relationships among regions and exemplify important geographic concepts and problems. This course explores physical and political geography. Locations and map study are emphasized during the semester. There are many hands-on and interactive activities included in the curriculum of this course.

- Grade Level: 9, 10, 11, 12
- Credits: 2 semester course, 1 credit per semester
- Counts as a Social Studies requirement for the General Diploma
- Counts as an Elective for all diplomas
- Fulfills the Geography History of the World/World History and Civilization graduation requirement for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

AP HUMAN GEOGRAPHY (1572)

AP Human Geography is a course based on the content established and copyrighted by the College Board. The AP Human Geography course is equivalent to an introductory college-level course in human geography. The course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine socioeconomic organization and its environmental consequences.

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

- Grade Level: 10, 11, 12
- Prerequisite: A minimum GPA of 3.0 and Geography & History of the World or AP World History. Students should be able to read a college level textbook and write grammatically correct, complete sentences.
- Credits: 2 semester course, 1 credit per semester
- Counts as an Elective for all diplomas

GOVERNMENT (1540)

United States Government provides a framework for understanding the purposes, principles, and practices of constitutional representative democracy in the United States. Responsible and effective participation of citizens is stressed. Students understand the nature of citizenship, politics, and governments; the rights and responsibilities of citizens; and how these are part of local, state, and national government. Students examine how the United States Constitution protects rights and provides the structure and functions of various levels of government. How the United States interacts with other nations and the government's role in world affairs will be included. Using primary and secondary resources, students will articulate, evaluate, and defend positions on political issues. As a result, they will 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
- Credits: 1 semester course, 1 credit per semester
- Fulfills the Government requirement for all diplomas

AP UNITED STATES GOVERNMENT & POLITICS (1560)

AP United States Government and Politics is a course based on the content established and copyrighted by the College Board. AP United States Government and Politics introduces students to key political ideas, institutions, policies, interactions, roles, and behaviors that characterize the political culture of the United States. The course examines politically significant concepts and themes, through which students learn to apply disciplinary reasoning assess causes and consequences of political events, and interpret data to develop evidence-based arguments. Topics include: (1) constitutional underpinnings, (2) political beliefs and behaviors, (3) political parties, interest groups, and mass media, (4) institutions of national government, (5) public policy, and (6) civil rights and civil liberties.

- Grade Level: 12
- Prerequisite: A minimum GPA of 3.0, teacher approval and successful completion of AP US History. Students should be able to read a college level textbook and write grammatically correct, complete sentences.
- Credits: 1 semester course, 1 credit per semester
- Counts as an Elective for all diplomas
- Fulfills the US Government requirement for all diplomas

CURRENT PROBLEMS, ISSUES AND EVENTS (1512)

Current Problems, Issues, and Events gives students the opportunity to apply investigative and inquiry techniques to the study of significant problems or issues. Students develop competence in (1) recognizing cause and effect relationships, (2) recognizing fallacies in reasoning and propaganda devices, (3) synthesizing knowledge into useful patterns, (4) stating and testing hypotheses, and (5) generalizing based on evidence. Problems or issues selected will have contemporary historical significance and will be studied from the viewpoint of the social science disciplines.

- Grade Level: 10, 11, 12
- Prerequisite: successful completion of 2 semesters of a Social Studies course with a grade of C or better and a minimum GPA of 2.5
- Credits: 1 semester course, 1 credit per semester. Course may be repeated for credit if the content of the course changes.
- Counts as an Elective for all diplomas

ECONOMICS (1514)

Economics examines the allocation of resources and their uses for satisfying human needs and wants. The course analyzes economic reasoning and behaviors of consumers, producers, savers, investors, workers, voters, institutions, governments, and societies in making decisions. Students explain that because resources are limited, people must make choices and understand the role that supply, demand, prices, and profits play in a market economy. Key elements of the course include the study of scarcity and economic reasoning; supply and demand; market structures; the role of government; national economic performance; the role of financial institutions; economic stabilization; and trade.

- Grade Level: 12
- Credits: 1 semester course, 1 credit per semester
- Counts as an Elective for all diplomas
- Fulfills the Economics requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas
- Fulfills a Social Studies requirement for the General Diploma only

PSYCHOLOGY (1532)

Psychology provides an opportunity to study individual and social psychology and how the knowledge and methods of psychologists are applied to the solution of human problems. Content for the course includes some insights into behavior patterns and adjustments to social environments. The course should develop critical attitudes toward superficial generalizations about human beings, respect for the difficulty of establishing the truth of a proposition, and a heightened sensitivity to the feelings and needs of others. This course includes the study of human development in the areas of the mental and behavioral process. The major focus of this class will be on the following: the history of psychology, theories of learning and memory, self-esteem and personality development, altered states of consciousness, abnormal behavior, and research design.

- Grade Level: 10, 11, 12
- Prerequisite: minimum cumulative GPA of 2.5
- Credits: 1 semester course, 1 credit per semester
- Counts as an Elective for all diplomas

SOCIOLOGY (1534)

Sociology provides opportunities for students to study group behavior and basic human institutions. Broad areas of content include the study of institutions found in all societies and could involve: (1) the family, (2) religion, (3) community organizations, (4) political and social groups, and (5) leisure time organizations. Moral values, traditions, folkways, the mobility of people, and other factors of society which influence group behavior should also be included in the study of Sociology. This course investigates the structure and origin of society and culture and explains the functions of social instruction. The major focus of this class will be on our changing society, socializing agents (the family, schools, peers, and the media), and current social problems. Understanding our society as a means of becoming a more productive member is stressed.

- Grade Level: 10, 11, 12
- Prerequisite: minimum cumulative GPA of 2.5
- Credits: 1 semester course, 1 credit per semester
- Counts as an Elective for all diplomas

TOPICS IN SOCIAL SCIENCE – STRUGGLE OF CIVIL RIGHTS (1550)

The Struggle for Civil Rights will help students to understand and appreciate the history of the fight for Civil Rights by, primarily, African Americans. This course examines: (1) the "first" Civil Rights Movement that began after Reconstruction abruptly ended, (2) the impact of the U.S. Constitutional Amendments and Supreme Court Landmark cases, (3) the Sociological and Psychological impact of the struggle, and (4) the result of the Civil rights Movement on our people, laws, government, and country. The United States Civil Rights Movement is an era in American History that seems to have never ended. The struggle for equal rights affects us all in various manners: headlines in the media, protests and riots, how people view and react to someone who is different and how many people still use the word "they" when referring to another group. This class will highlight the ongoing struggle for Civil Rights. The Struggle for Civil Rights in the U.S. is a topic that needs to be taught and addressed at the high school level. We still deal with racism and bigotry today, and knowledge of the circumstances that led to the marches, protests, and eventual legislation, can help our students to break with old attitudes and beliefs. The phrase "Knowledge is Power" is one way to truly accept our African Americans and all minority groups.

- Grade Level: 10, 11, 12
- Credits: 1 semester course, 1 credit
- Counts as an elective for all diplomas

Special Education

BASIC SKILLS DEVELOPMENT (0500)

Basic Skills Development is a multidisciplinary course that provides students continuing opportunities to develop basic skills including: (1) reading, (2) writing, (3) listening, (4) speaking), (5) mathematical computation, (6) note taking, (7) study and organizational skills, and (8) problem solving skills, which are essential for high school course-work achievement. Determination of the skills to be emphasized in this course is based on Indiana’s standards, individual school corporation general curriculum plans, and the student’s Individualized Education Programs (IEP) or other individualized plans. Skills selected for developmental work provide students with the ability to continue to learn in a range of different life situations.

- Recommended Grade Level: 9, 10, 11, 12
- Credits: 1 credit per semester up to 8 semesters, 8 credits maximum
- Counts as an Elective for all diplomas

DEVELOPMENTAL READING (1120)

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

- Grade Level: 9, 10, 11, 12
- Credits: 1 to 8 semester course, 1 credit per semester. This course allows for successive semesters of instruction for students who need additional support in vocabulary development and reading comprehension.
- Counts as an elective for all diplomas

World Language Department

CHINESE I (2000)

FRENCH I (2020)

SPANISH I (2120)

Level I is based on Indiana’s Academic Standards for World Languages, introduces students to effective strategies for beginning language learning, and to various aspects of Chinese, French or 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 Chinese, French or 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 language and culture outside of the classroom.

- Grade Level: 9, 10, 11, 12
- Prerequisite: grade of B or better in both semesters of 8th grade Language Arts or English 9, 10, 11
- Credits: 2 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma

CHINESE II (2002)

FRENCH II (2022)

SPANISH II (2122)

Level II is based on Indiana’s Academic Standards for World Languages, builds upon effective strategies for Chinese, French or 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 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 language and culture outside of the classroom.

- Grade Level: 9, 10, 11, 12
- Prerequisites: passing grade in Chinese I, French I or Spanish I
- Credits: 2 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas

- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma

CHINESE III (2004)

FRENCH III (2024)

SPANISH III (2124)

Level III is based on Indiana’s Academic Standards for World Languages, builds upon effective strategies for Chinese, French or 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 Chinese, French or 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 language and culture outside of the classroom.

- Recommended Grade Level: 10, 11, 12
- **Dual Credit Option** for Spanish III ONLY: PNW SPAN 101 and 102 – 6 credits, an application must be filled out and the course must be paid for to receive Concurrent Enrollment credit
- Prerequisite: passing grade in Chinese I and II, French I and II or Spanish I and II
- Credits: 2 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma

CHINESE IV (2006)

FRENCH IV (2026)

SPANISH (2126)

Level IV is based on Indiana’s Academic Standards for World Languages, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral information are expanded through emphasis on practicing speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop understanding of Chinese, French or 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 Chinese, French or Spanish language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native speakers.

- Grade Level: 11, 12
- **Dual Credit Option** for Spanish IV ONLY: PNW SPAN 201 and 202 – 6 credits, an application must be filled out and the course must be paid for to receive Concurrent Enrollment credit
- Prerequisite: a passing grade in Chinese I, II and III, French I, II and III or Spanish I, II and III
- Credits: 2 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma

CHINESE V (2008)

FRENCH V (2028)

SPANISH V (2128)

Level V is based on Indiana’s Academic Standards for World Languages, provides opportunities for students to interact and exchange information in culturally and socially authentic and/or simulated situations to demonstrate integration of language skills with understanding of Chinese, French or Spanish-speaking culture. This course emphasizes the use of appropriate formats, varied vocabulary and complex language structures within student communication, both oral and written, as well as the opportunity to produce and present creative material using the language. Additionally, students will continue to develop understanding of Chinese, French or Spanish-speaking culture through investigating the origin and impact of significant events and contributions unique to the target culture, comparing and contrasting elements that shape cultural identity in the target culture and the student’s own culture, and explaining how the target language and culture have impacted other communities. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the exploration of community resources intended for native speakers.

- Grade Level: 11, 12
- Prerequisite: a passing grade in Chinese I, II, III and IV, French I, II, III and IV or Spanish I, II, III and IV
- Credits: 2 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma

Career & Technical Education

LaPorte County Career and Technical Education Center

The LaPorte County Career and Technical Education Center in Michigan City has an extensive program that is available to New Prairie High School students. Juniors and seniors who select this program will attend New Prairie High School four periods each day. The remainder of the school day will be allocated to completing the requirements of their specific programs. The Career and Technical Education programs that follow are available to juniors and seniors that meet the following criteria:

1. Student has completed the 9th and 10th grade requirements, is on track to graduate, and has a 2.0 cumulative GPA.
2. Student has related career goals.
3. Student has counselor approval of junior and senior course selections.
4. Student has a steady attendance record.

Students must apply to the Career Center online at WWW.EDUCATEMC.NET/CAREERTECH. Students must also complete the Registration Confirmation form (found in the NPHS Guidance Office). Applications are accepted by the Career Center starting in November for sophomores and continuing juniors.

AUTOMOTIVE SERVICES TECHNOLOGY I (5510)

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 as well as cost estimation and calculation activities. Scientific principles taught and reinforced in this course include the study of viscosity, friction, thermal expansion, and compound solutions. Written and oral skills will also be emphasized to help students communicate with customers, colleagues, and supervisors.

- Grade Level: 11, 12
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- **Dual Credit opportunity:** Ivy Tech AUTI 100 Basic Automotive Service – 3 credits and Ivy Tech AUTI 121 Brake Systems – 3 credits
- Counts as a Directed Elective or Elective for all diplomas

AUTOMOTIVE SERVICES TECHNOLOGY II (5546)

Automotive Services Technology II is a one year course that encompasses the sub topics of the NATEF/ASE identified areas of Electrical Systems and Engine Performance. This one year course offering may be structured in a series of two topics per year offered in any combination of instructional strategies of semester based or yearlong instruction. Additional areas of manual transmissions /differentials, automatic transmissions, air conditioning, and engine repair should be covered as time permits. This one-year offering must meet the NATEF program certifications for the two primary areas

offered in this course. Mathematical skills will be reinforced through precision measuring activities and cost estimation/calculation activities. Scientific principles taught and reinforced in this course include the study of viscosity, friction, thermal expansion, and compound solutions. Written and oral skills will also be emphasized to help students communicate with customers, colleagues, and supervisors.

- Grade Level: 12
- Prerequisites: Automotive Services Technology I
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- **Dual Credit opportunity:** Ivy Tech AUTI 111 Electrical Systems I – 3 credits and AUTI 131 Engine Performance Systems I – 3 credits
- Counts as a Directed Elective or Elective for all diplomas

ADVANCED MANUFACTURING I (5608)

Advanced Manufacturing I, is a course that includes classroom and laboratory experiences in two broad areas: Industrial Technology/Software Controls and Manufacturing Trends. Industrial Technology and Software Controls covers wiring and schematic diagrams used to design, install, and repair electrical/electronic equipment such as wireless communication devices, and programmable controllers. Course content will include basic theories of electricity, electronics, digital technology, and basic circuit analysis. Activities include experiences in: soldering; use of an oscilloscope, meters, signal generators and tracers; bread boarding; circuit simulation software; and troubleshooting. Understanding and using the underlying scientific principles related to electricity, electronics, circuits, sine waves, and Ohm's Law are integral to this course. Manufacturing Trends covers basic concepts in manufacturing operations and plant floor layout in the production environment. Applications of Computer Numerical Control (CNC), and lathe and turning operations are developed as a foundation for machining operations. Coordinate system concepts are introduced as relevant to machining processes, as well as fluid and mechanical power, welding, and lean manufacturing.

- Grade Level: 11, 12
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- **Dual Credit opportunity:** Ivy Tech MPRO 102 Introduction to Print Reading – 3 credits, Ivy Tech MPRO 122 Mechatronics Electrical System – 3 credits and Ivy Tech MPRO 201 Lean Manufacturing – 3 credits
- Counts as a Directed Elective or Elective for all diplomas

ADVANCED MANUFACTURING II (5606)

Advanced Manufacturing II, builds on concepts learned in Advanced Manufacturing I and introduces basic blueprint reading, Computer Numerical Control (CNC) operation and other skills commonly used in manufacturing. Areas of study will include: interpretation of drawing dimensions, Geometric Dimensioning and Tolerancing (GDT), welding, fabrication, and inspection techniques. Students will use Computer Aided Design software (CAD) to create 3D models and working drawings. Skills in the setup and operation of a CNC mill and lathe will also be acquired using multiple machine tool controllers. Other more general topics will include coordinate systems, dimensioning, line precedence, multi-view drawings, safe dress, tool paths, speed and feed calculations, and tool selection. The course also introduces robotics, automation, and Computer Integrated Manufacturing Technology (CIMT). Common types of factory automation will be identified. The course will focus on three main types of

manufacturing automation including; Programmable Logic Controllers (PLC), Computer Numerically Controlled Machines (CNC), and Robotics.

- Grade Level: 12
- Prerequisite: Advanced Manufacturing I
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as a quantitative reasoning course

COSMETOLOGY I (5802)

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.

- Grade Level: 11, 12
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- Counts as Directed Elective or Elective for all diplomas

COSMETOLOGY II (5806)

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.

- Grade Level: 12
- Prerequisite: Cosmetology I
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

CRIMINAL JUSTICE I (5822)

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.

- Grade Level: 11, 12
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

CRIMINAL JUSTICE II (5824)

Criminal Justice II introduces students to concepts and practices in traffic control as well as forensic investigation at crime scenes. Students will have opportunities to use mathematical skills in crash

reconstruction and analysis activities requiring measurements and performance of speed/acceleration calculations. Additional activities simulating criminal investigations will be used to teach scientific knowledge related to anatomy, biology, and chemistry as well as collection of evidence, developing and questioning suspects, and protecting the integrity of physical evidence found at the scene and while in transit to a forensic science laboratory. Procedures for the use and control of informants, inquiries keyed to basic leads, and other information-gathering activities and chain of custody procedures will also be reviewed.

- Grade Level: 12
- Prerequisite: Criminal Justice I
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

CULINARY ARTS & HOSPITALITY I (5440)

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

- Grade Level: 11,12
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- **Dual Credit opportunity:** Ivy Tech HOSP 101 Sanitation and First Aid – 3 credits and Ivy Tech HOSP 102 Basic Food Theory and Skills – 3 credits
- Counts as a Directed Elective or Elective for all diplomas

CULINARY ARTS & HOSPITALITY II: CULINARY ARTS (5346)

Culinary Arts and Hospitality II: Culinary Arts prepares students for occupations and higher education programs of study related to the entire spectrum of careers in the food industry, including (but not limited to) food production and services; food science, dietetics, and nutrition; and baking and pastry arts. Major topics for this advanced course include: basic baking theory and skills, introduction to breads, introduction to pastry arts, nutrition, nutrition accommodations and adaptations, cost control and purchasing, and current marketing and trends. Instruction and intensive laboratory experiences include commercial applications of principles of nutrition, aesthetic, and sanitary selection; purchasing, storage, preparation, and service of food and food products; using and maintaining related tools and equipment; baking and pastry arts skills; managing operations in food service, food science, or hospitality establishments; providing for the dietary needs of persons with special requirements; and related research, development, and testing. Intensive laboratory experiences with commercial

applications are a required component of this course of study. Student laboratory experiences may be either school-based or "on-the-job" or a combination of the two. Advanced Culinary Arts builds upon skills and techniques learned in Culinary Arts and Hospitality Management, which must be successfully completed before enrolling in this advanced course. Work-based experiences in the food industry are strongly encouraged. A standards-based plan guides the students' laboratory and work-based experiences. Students are monitored in these experiences by the Advanced Culinary Arts teacher.

- Grade Level: 12
- Prerequisite: Culinary Arts and Hospitality I
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- **Dual Credit opportunity:** Ivy Tech HOSP 104 Nutrition – 3 credits and Ivy Tech HOSP 105 Intro to Baking – 3 credits
- Counts as a Directed Elective or Elective for all diplomas

EARLY CHILDHOOD EDUCATION I (5412)

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.

- Grade Level: 11, 12
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- **Dual Credit opportunity:** Ivy Tech ECED 100 Intro to Early Childhood Education – 3 credits and Ivy Tech ECED 101 Health, Safety and Nutrition – 3 credits
- Counts as a Directed Elective or Elective for all diplomas

EARLY CHILDHOOD EDUCATION II (5406)

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.

- Grade Level: 12
- Prerequisite: Early Childhood Education I
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- **Dual Credit opportunity:** Ivy Tech ECED 103 Curriculum Early Childhood Ed – 3 credits and Ivy Tech EDUC 101 Introduction to Education – 3 credits
- Counts as a Directed Elective or Elective for all diplomas

ENERGY INDUSTRY I - ELECTRONICS I/ENERGY ACADEMY (5616)

Electronics I 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 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. This course will integrate NCCER curriculum and certification. This course is year 1 of the Energy Academy.

- Grade Level: 11, 12
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- **Dual Credit opportunity:** Ivy Tech INDT 113 Basic Electricity – 3 credits
- Counts as a Directed Elective or Elective for all diplomas

ENERGY INDUSTRY II - ELECTRONICS II/ENERGY ACADEMY (5618)

Electronics II provides the opportunity for students to continue with foundational electronic concepts including circuit analysis and digital electronics modules. After completing the two additional foundational modules, student may choose to focus on one of the optional modules that can include more intense instruction, research, specialized projects, and internships. The optional modules include

industrial technology, emerging electronic technologies, residential and commercial electronic communication, and automation. The content of this class is designed to provide the State of Indiana with a trained workforce in emerging technologies career pathways that will make a significant contribution to the Indiana economy. Industry certifications and additional post-secondary education are critical components of this pathway. Classroom, laboratory, and work-based experiences in the fundamental electronics concepts of circuit analysis and digital electronics as well as one of the optional modules will incorporate safety, technical writing, mathematics, and customer service. This course will integrate NCCER curriculum and certification. This course is year 2 of the Energy Academy.

- Grade Level: 12
- Prerequisite: Electronics I/ Energy Academy
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

FIRE AND RESCUE I (5820)

Fire and Rescue I; Every year, fires and other emergencies take thousands of lives and destroy property worth billions of dollars. Firefighters and emergency services workers help protect the public against these dangers by rapidly responding to a variety of emergencies. They are frequently the first emergency personnel at the scene of a traffic accident or medical emergency and may be called upon to put out a fire, treat injuries or perform other vital functions. The Fire and Rescue curriculum may include five Indiana state fire certifications: (1) Mandatory, (2) Firefighter I, (3) Firefighter II, (4) Hazardous Materials Awareness, and (5) Hazardous Materials Operations. An additional two industry certifications may be earned by adding (6) First Responder, and (7) Emergency Medical Technician-Basic to the curriculum.

- Grade Level: 11, 12
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- **Dual Credit opportunity:** Ivy Tech HSPS 106 Fire Suppression – 3 credits, Ivy Tech HSPS 121 Hazmat Awareness & Operations – 3 credits, Ivy Tech HSPS 165 Fire Fighter I – 3 credits and Ivy Tech HSPS 167 Fire Fighter II – 3 credits
- Counts as a Directed Elective or Elective for all diplomas

FIRE AND RESCUE II (5826)

Fire and Rescue II builds on skills learned in Fire and Rescue I. The Fire and Rescue curriculum may include five Indiana state fire certifications: (1) Mandatory, (2) Firefighter I, (3) Firefighter II, (4) Hazardous Materials Awareness, and (5) Hazardous Materials Operations. An additional two industry certifications may be earned by adding (6) First Responder, and (7) Emergency Medical Technician-Basic to the curriculum

- Grade Level: 12
- Prerequisite: Fire and Rescue I
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- **Dual Credit opportunity:** Ivy Tech HSPS 125 First Responder – 3 credits and Ivy Tech PARM 102 Emergency Medical Technician – Basic Training – 7.5 credits
- Counts as a Directed Elective or Elective for all diplomas

HEALTH SCIENCE EDUCATION I (5282)

Health Science Education I is a course designed to provide a foundation of skills development to specific health careers including; patient care, dental care, animal care, medical laboratory, and public health. Students will also receive an introduction to healthcare systems, anatomy, physiology, and medical terminology. Laboratory experiences with industry applications are organized and planned around the activities associated with the student's career objectives. Job seeking and job maintenance skills, personal management skills, self-analysis to aid in career selection and completion of the application process for admission into a postsecondary program of their choice are also included in this course. Participation in HOSA encourages the development of leadership, communication and career related skills, and opportunities for community service.

- Grade Level: 11
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, maximum of 6 credits
- **Dual Credit opportunity:** Ivy Tech HLHS 100 Intro to Health Careers – 3 credits
- Counts as a Directed Elective or Elective for all diplomas

HEALTH SCIENCE EDUCATION II (5284)

Students in this program may choose to obtain EMT or CNA certifications as part of this course. Health Science Education II: Nursing is an extended laboratory experience at the student's choice of clinical site designed to provide students the opportunity to assume the role of nurse assisting and practice technical skills previously learned in the classroom, including information on the health care system and employment opportunities at a variety of entry levels, an overview of the health care delivery systems, health care teams and legal and ethical considerations. It prepares students with the knowledge, skills and attitudes essential for providing basic care in extended care facilities, hospitals and home health agencies under the direction of licensed nurses. These knowledge and skills include recording patient medical histories and symptoms, providing medicine and treatments, consulting doctors, operating and monitoring medical equipment, performing diagnostic tests, teaching patients and families how to manage illness or injury, and perform general health screenings. This course also provides students with the knowledge, attitudes, and skills needed to make the transition from school to work in the field of nurse assisting, including self-analysis to aid in career selection, job seeking and job maintenance skills, personal management skills, and completion of the application process for admission into a postsecondary program. HOSA, the health science student organization, encourages development of leadership, communication, community service and healthcare related skills.

- Grade Level: 12
- Prerequisite: Health Science Education I
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, maximum of 6 credits
- **Dual Credit opportunity:** Ivy Tech HLHS 107 CNA preparation
- Counts as a Directed Elective or Elective for all diplomas

WELDING TECHNOLOGY I (5776)

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.

- Grade Level: 11, 12
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- **Dual Credit opportunity:** Ivy Tech WELD 100 Welding Fundamentals – 3 credits and Ivy Tech WELD 108 Shielded Metal Arc Welding I – 3 credits
- Counts as a Directed Elective or Elective for all diplomas

WELDING TECHNOLOGY II (5778)

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.

- Grade Level: 12
- Prerequisite: Welding Technology I
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- **Dual Credit opportunity:** Ivy Tech WELD 109 Oxy-Fuel Gas Welding Cutting – 3 credits and Ivy Tech WELD 207 Gas Metal Arc MIG Welding – 3 credits
- Counts as a Directed Elective or Elective for all diplomas