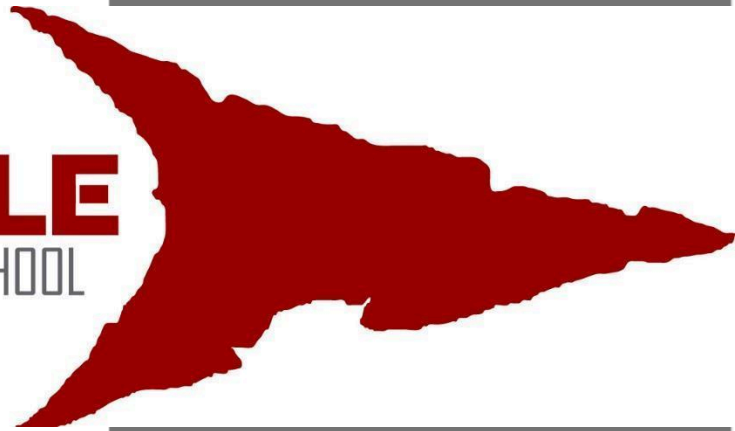


2024-2025

# Course Offerings

**DANVILLE**  
COMMUNITY HIGH SCHOOL



THE **DANVILLE** DIFFERENCE

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# General Scheduling Information

## ADVANCED COURSES FOR COLLEGE CREDIT (DUAL CREDIT)

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

**Textbooks for dual credit courses are determined by the postsecondary institution. Students will be expected to purchase those textbooks outright. Financial aid for these costs may be available. Students should speak with their guidance counselors for further information.**

## ADVANCED PLACEMENT COURSES

Advanced Placement (AP) courses are intended to be equivalent to similar college-level courses. The College Board does not designate a time period during which the content of the high school course is to be covered. Most AP courses require two traditional semesters to adequately address the course content and prepare students for the associated exam. **Please note that there may be an additional charge of \$95 to students for taking the AP exam for the AP courses that they take. Some of those exam fees may be covered by the state, but others will not. The list of fees covered by the state changes from year to year and is not available to schools until close to the time for AP exams to be taken. For that reason, any student taking an AP course should plan on needing to pay for the corresponding AP exam. Financial aid for these costs may be available. Students should speak with their guidance counselors for further information.**

## CLASS RANK

Class rank, figured for each student at the end of each semester, will be determined on a weighted GPA. Valedictorian and salutatorian will be determined at the end of a student's eighth semester or the end of the senior year and will be determined on a weighted system. The grade of "A+" is figured into class rank the same as the grade of "A." The following point scale will be used when figuring class rank for all students:

A	4.0	B-	2.67	D+	1.33
A-	3.67	C+	2.33	D	1.0
B+	3.33	C	2.0	D-	0.67
B	3.0	C-	1.67	F	0

## DIPLOMA TYPES

Students at DCHS are encouraged to push themselves to earn a Core 40 diploma. The Core 40 diploma is the academic foundation all students need to succeed in college, apprenticeship programs, military training and the workforce:

- Students who take strong academic courses in high school are more likely to enroll in college and earn a degree. That's important, because higher education pays: On average, college graduates earn more than a million dollars more over a lifetime than those with only a high school education. High school graduates earn 42 percent more than high school dropouts.
- Good jobs require education beyond high school. That means if students want jobs that will support them and their future families, provide health benefits and offer a chance for advancement, they'll need to complete two- or four-year degrees, apprenticeship program, military training, or workforce certification. If they are planning to go directly to work after high school graduation, they will still need to be prepared for training and retooling throughout their lifetimes. Core 40 gives them more options — and more opportunities — to find a career with a real future.
- Employers, apprenticeship programs and the military all agree – they expect students to arrive with essential skills, including speaking and writing clearly, analyzing information, conducting research, and solving complex problems.
- To succeed in college-level work, students need to complete Core 40 in high school. Anything less may mean taking remedial (high school) coursework in college, which means it will take them longer to finish and will cost them more in

college tuition. It also means they'll have a greater chance of dropping out before they get their degrees. That's why Core 40 is a college admissions requirement.

- The Core 40 diploma also helps students earn money for college. Indiana students who complete a Core 40 diploma and meet other financial aid and grade requirements can receive up to 90 percent of approved tuition and fees at eligible colleges. Core 40 with Academic Honors graduates can receive up to 100 percent and some colleges also offer their own scholarships specifically for students who earn this diploma.

### **ACADEMIC PROGRESS**

By clicking on the Academic Progress link on the left side of the home page in the Infinite Campus portal, parents and students can monitor a student's progress toward graduation through the Infinite Campus portal. Once a diploma type has been selected, requirements that a student has met will be highlighted in green and requirements not yet met will be highlighted in red. By expanding each selection, parents and students can see what courses meet the individual requirements.

### **CORE 40 DIPLOMA**

- English/Language Arts 8 credits including a balance of literature, composition and speech.
- Mathematics 6 credits (in grades 9-12) 2 credits: Algebra I, 2 credits: Geometry, 2 credits: Algebra II *or complete Integrated Math I, II, and III for 6 credits. Students must take a math or quantitative reasoning course each year in high school*
- Science 6 credits 2 credits: Biology I, 2 credits: Chemistry I or Physics I or ICPs, 2 credits: any Core 40 science course
- Social Studies 6 credits 2 credits: U.S. History, 1 credit: U.S. Government, 1 credit: Economics, 2 credits: World History/Civilization or Geography/History of the World
- Directed Electives 5 credits World Languages, Fine Arts, Career and Technical Education
- Physical Education 2 credits
- Health and Wellness 1 credit
- Electives\* 8 credits (College and Career Pathway courses recommended)\*

\*A school corporation cannot require a student with a disability to complete locally required credits that exceed state credit requirements to receive a diploma unless otherwise required as part of the student's individualized education program under IC 20-35.

### **Indiana Diploma with Academic Honors Designation (47 min. cr.)**

- Complete all requirements for Core 40.
- Earn 2 additional Core 40 math credits.
- Earn 6-8 Core 40 world language credits (6 credits in one language or 4 credits each in two languages).
- Earn 2 Core 40 fine arts credits.
- Earn a grade of a "C" or better in courses that will count toward the diploma.
- Have a grade point average of a 3.0 or better.
- Complete one of the following:
  1. Earn 4 credits in 2 or more AP courses and take corresponding AP exams
  2. Earn 6 verifiable transcribed college credits in dual credit courses from the approved dual credit list.
  3. Earn two of the following:
    - i. A minimum of 3 verifiable transcribed college credits from the approved dual credit list,
    - ii. 2 credits in AP courses and corresponding AP exams,
    - iii. 2 credits in IB standard level courses and corresponding IB exams.
  4. Earn a combined score of 1750 or higher on the SAT critical reading, mathematics and writing sections and a minimum score of 530 on each
  5. Earn an ACT composite score of 26 or higher and complete written section
- 47 Total Credits Required

### **Indiana Diploma with Technical Honors Designation**

- Complete all requirements for Core 40.
- Earn 6 credits in the college and career preparation courses in a state-approved College & Career Pathway and one of the following:
  1. State approved, industry recognized certification or credential, or
  2. Pathway dual credits from the approved dual credit list resulting in 6 transcribed college credits
- Earn a grade of “C” or better in courses that will count toward the diploma.
- Have a grade point average of a 3.0 or better.
- Complete one of the following,
  1. Any one of the options (1-5) of the Indiana Diploma with Academic Honors Designation
  2. Earn the following scores or higher on Work Keys; Reading for Information – Level 6, Applied Mathematics – Level 6, and Locating Information – Level 5.
  3. Earn the following minimum score(s) on Accuplacer: Writing 80, Reading 90, Math 75.
  4. Earn the following minimum score(s) on Compass; Algebra 66, Writing 70, Reading 80.

### **GENERAL DIPLOMA (General Designation)**

**The completion of an Indiana Diploma with Core 40 Designation is an Indiana graduation requirement. Indiana’s Core 40 curriculum provides the academic foundation all students need to succeed in college and the workforce. To graduate with less than Core 40 Designation, the opt-out process must be completed. Parents should contact a student’s guidance counselor if more information is needed.**

- English/Language Arts 8 credits (must include literature, composition and speech)
- Mathematics 4 credits
  1. 2 credits: Algebra I or Integrated Mathematics I
  2. 2 credits: Any math course
  3. General diploma students are required to earn 2 credits in a Math or a Quantitative Reasoning (QR) course during their junior or senior year. QR courses do not count as math credits.
- Science 4 credits
  1. 2 credits: Biology I
  2. 2 credits: Any science course  
\*At least one credit must be from a Physical Science.
- Social Studies 4 credits
  1. 2 credits: U.S. History
  2. 1 credit: U.S. Government
  3. 1 credit: any social studies course
- Physical Education 2 credits
- Health and Wellness 1 credit
- College & Career Pathway Courses 6 credits
- Flex Credit 5 credits – must come from one of the following:
  1. Additional elective courses in a College and Career Pathway
  2. Courses involving workplace learning such as Cooperative Education or Internship courses
  3. High school/college dual credit courses
  4. Additional courses in Language Arts, Social Studies, Mathematics, Science, World Languages or Fine Arts
- Electives 8 credits

### **ACADEMIC PROGRESS**

By clicking on the Academic Progress link on the left side of the home page in the Infinite Campus portal, parents and students can monitor a student’s progress toward graduation through the Infinite Campus portal. Once a diploma type has been selected, requirements that a student has met will be highlighted in green and requirements not yet met will be highlighted in red. By expanding each selection, parents and students can see what courses meet the individual requirements.

### **EARLY GRADUATION REQUIREMENTS**

A student in Danville Community High School must attend high school a minimum of two semesters and must have fulfilled all graduation conditions and requirements in order to graduate from DCHS. Exceptions may be granted in accordance to the applicable state statutes regarding early graduation and reduced daily class schedules. An example of those statutes are but not limited to: IC 20-30-2, the school flex program, IC 21-12-10 the Mitch Daniels Early Graduation Scholarship, and IC 21-43-4 the Postsecondary Enrollment Program. The student must complete all of the applicable forms, requirements, and deadlines currently in place in order to graduate prior to their designated class graduation date. All necessary information may be obtained through the guidance office.

### **GRADING SCALE (UNWEIGHTED)**

Students' current grades are available at any time via our student information system. Additionally, report cards will be available electronically on the Friday following the end of each grading period. Following is the unweighted grading scale:

A+	100	C+	78-79
A	93-99	C	73-77
A-	90-92	C-	70-72
B+	88-89	D+	68-69
		D	63-67
B	83-87	D-	60-62
B-	80-82	F	59 and Below

### **GRADING SCALE (WEIGHTED)**

DCHS recognizes that some courses are designed to be more challenging and, as a result, these courses receive weighted grades. Courses that are weighted include Advanced Placement courses and dual credit courses that are in the core transfer library and are offered by accredited postsecondary institutions. To confirm whether an organization is accredited, consult the lists maintained by the Council for Higher Education Accreditation.

Following is the weighted grading scale:

A	5.00
A-	4.67
B+	4.33
B	4.00
B-	3.67
C+	3.33
C	3.00
C-	2.67
D+	2.33
D	2.00
D-	1.67
F	0

### **GRADUATION PATHWAYS**

**Completing a Graduation Pathway is highly recommended for the Class of 2023 and beyond.**

1. Meet the Statutorily Defined Diploma Credit and Curricular Requirements as noted above in DIPLOMA TYPES
2. Learn and Demonstrate Employability Skills (Complete ONE of the following during the student's high school career.)
  - a. Project Based Learning Experience (Ex. Eagle Scout Project)
  - b. Service Based Learning Experience (Ex.: Sport, Club, Choir, Band)
  - c. Work Based Learning Experience (Example: Job)
3. Meet ONE of the Following Post-Secondary Readiness Competencies
  - a. Academic Honors Diploma
  - b. ACT College Ready Benchmarks (18 Eng OR 22 in Rdg AND 22 in Math OR 23 in Sci)
  - c. SAT College Ready Benchmarks (480 in EBRW, 530 in Math)

- d. ASVAB Benchmark (minimum score of 31)
- e. State and Industry Recognized Credential or Certification
  - i. CTE Concentrator (Earn C average in at least 6 high school credits in career sequence. The student must earn a C average in at least two non-duplicative advanced courses (courses beyond an introductory course) within a particular program or program of study.
  - ii. AP/Dual Credit (earn C average in at least 3 courses)

**For more information about Graduation Pathways, please visit the Indiana Department of Education's [Graduation Pathways](#).**

#### **SCHEDULE CHANGE POLICY**

If a student wishes to make a valid request for a schedule change, those requests must be initiated within the first five days of the semester. Please note that schedule changes initiated to request specific teachers are not considered valid. Necessary schedule changes requested after the fifth day of each semester must be approved by the student's guidance counselor and the principal. If a student receives approval for a necessary schedule change after the first ten days of the semester, or if a student is withdrawn from a class due to discipline or attendance reasons, the student will be given a grade of WF on his/her transcript for that class. Those students will be assigned to a study hall for the remainder of the semester if at all possible. If a study hall is not available during the applicable class period, the student's schedule may be changed in order to allow for placement in a study hall during a different period, or the student may spend that class period in the office for the remainder of the semester.

# CAREER AND TECHNICAL EDUCATION

## AGRICULTURE

### **ADVANCED LIFE SCIENCE: ANIMALS, DUAL CREDIT (5070)**

A C40/AHD/THD Elective/Directed Elective

Recommended Grade: 11, 12

Prerequisites: Principles of Agriculture (for Classes of 2025, 2026, 2027)

Two semesters – 1 credit per semester

Fulfills a science requirement for all diplomas.

Qualifies as a quantitative reasoning course

Advanced Life Science: Animals is a two-semester course that provides students with opportunities to participate in a variety of activities including laboratory work. Students will explore concepts related to history and trends in animal agriculture as related to animal welfare, husbandry, diseases and parasites, laws and practices relating to handling, housing, environmental impact, global sustainable practices of animal agriculture, genetics, breeding practices, biotechnology uses, and comparative knowledge of anatomy and physiology of animals used in animal agriculture.

### **AGRIBUSINESS, DUAL CREDIT (7238)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Prerequisite: Any Agriculture Sequence

Qualifies as a quantitative reasoning course

Grades: 11-12

The Agribusiness Management Capstone introduces students to the Principles of agribusiness management and leadership from a local and global perspective, with the utilization of technology. The course will help students build a strong knowledge base of the agribusiness industry as they study agribusiness types, communications, agricultural law, leadership, and teamwork, ethics, and agricultural economics. Additionally, students will understand the role of selling in the agricultural economy, stressing the points and terminology necessary in today's agriculture. Students will demonstrate principles and techniques for planning, development, application and management of agribusiness systems through project-based learning and a supervised agriculture experience (work-based learning) programs. This course can be used as a capstone experience for any agriculture pathway.

### **ANIMAL SCIENCE, DUAL CREDIT (5008)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Prerequisite: Principles of Agriculture or Intro to Agriculture Food and Natural Resources

Fulfills a science course requirement for all diplomas

Fulfills a physical science requirement for General Diploma

Grades: 10-12

Animal Science is a two-semester course that provides students with an overview of the animal agriculture industry. Students participate in a large variety of activities and laboratory work including real and simulated animal science experiences and projects. All areas that the students study may be applied to both large and small animals. Topics to be covered in the course include: history and trends in animal agriculture, laws and practices relating to animal agriculture, comparative anatomy and physiology of animals, biosecurity threats and interventions relating to animal and human safety, nutrition, reproduction, careers, leadership, and supervised agricultural experiences relating to animal agriculture.

### **LANDSCAPE AND TURF MANAGEMENT, DUAL CREDIT (7115)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Recommended Grade: 10, 11, 12

Required Prerequisites: Principles of Agriculture (Classes of 2025, 2026, 2027)

Recommended Prerequisites: Principles of Agriculture or Introduction to Agriculture, Food and Natural Resources

Landscape and Turf Management is a two-semester course that provides the student with an overview of the many career opportunities in the diverse field of landscape and turf management. Students are introduced to the procedures used in the planning and design of a landscape using current technology practices, the principles and procedures involved with landscape construction, the determination of maintenance schedules, communications, and management skills necessary in landscaping operations, and the care and use of equipment utilized by landscapers. Upon completion of the program, students have the opportunity to become Indiana Landscape Industry Certified through a state approved program.

### **PRINCIPLES OF AGRICULTURE, DUAL CREDIT (7117)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Grades: 9-11

Principles of Agriculture is a two-semester course that will cover the diversity of the agricultural industry and agribusiness concepts. Students will develop an understanding and the role of agriculture in the United States and globally. Topics covered in the course range from animals, plants, food, natural resources, ag power, structures and technology, as well as careers.

### **HORTICULTURAL SCIENCE, DUAL CREDIT (5132)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Recommended Grade: 10, 11, 12

Required Prerequisites: Principles of Agriculture (Classes of 2025, 2026, 2027)

Recommended Prerequisites: Principles of Agriculture or Introduction to Agriculture, Food and Natural Resources

Horticulture Science provides students with a background in the field of horticulture. Coursework includes hands-on activities that encourage students to investigate areas of horticulture as it relates to the biology and technology involved in the production, processing, and marketing of horticultural plants and products. Students are introduced to the following areas of horticulture science: reproduction and propagation of plants, plant growth, growth-media, management practices for field and greenhouse production, marketing concepts, production of plants of local interest, greenhouse management, floral design, and pest management. Students participate in a variety of activities including extensive laboratory work usually in a school greenhouse.

### **PLANT AND SOIL SCIENCE, DUAL CREDIT (5170)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Prerequisite: Principles of Agriculture or Intro to Agriculture Food and Natural Resources

Fulfills a science course requirement for all diplomas

Fulfills a physical science requirement for General Diploma

Grades: 10-12

Plant and Soil Science a two semester course that provides students with opportunities to participate in a variety of activities including laboratory and field work. Coursework includes hands-on learning activities that encourage students to investigate areas of plant and soil science. Students are introduced to the following areas of plant and soil science: plant growth, reproduction and propagation, photosynthesis and respiration, diseases and pests of plants and their management, biotechnology, the basic components and types of soil, soil tillage, and conservation.

### **ADVANCED LIFE SCIENCE, PLANTS AND SOILS, DUAL CREDIT (5074)**

A C40/AHD/THD Elective/Directed Elective

Recommended Grade: 11, 12

Prerequisites: Principles of Agriculture (for Classes of 2025, 2026, 2027)

Two semesters – 1 credit per semester

Fulfills a science requirement for all diplomas.

Qualifies as a quantitative reasoning course

Advanced Life Science: Plants and Soils provides students with opportunities to participate in a variety of activities including laboratory work. Students study concepts, principles, and theories associated with plants and soils. Knowledge gained enables them to better understand the workings of agricultural and horticultural practices. They recognize how plants are classified, grow, function, and reproduce. Students explore plant genetics and the use of plants by humans. They examine plant evolution and the role of plants in ecology. Students investigate, through laboratories and fieldwork, how plants function and how soil influences plant life.

# **BUSINESS, MARKETING, AND INFORMATION TECHNOLOGY**

## **ACCOUNTING FUNDAMENTALS (4524)**

A C40/AHD/THD Elective/Directed Elective

Two semesters required – 1 credit per semester

Grades: 10-12 (9 with permission)

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

## **ADVANCED ACCOUNTING (4522)**

A C40/AHD/THD Elective/Directed Elective

Two semesters required – 1 credit per semester

Required Prerequisite: Principles of Business Management and Fundamentals of Accounting

Grades: 11-12

Advanced Accounting expands on the Generally Accepted Accounting Principles (GAAP) and procedures for various forms of business ownership using double-entry accounting covered in Accounting Fundamentals, including an emphasis on payroll accounting. Topics covered include calculating gross pay, withholdings, net pay, direct deposits, journalizing payroll transactions and preparing individual earnings records and payroll registers. Emphasis is placed on applying Generally Accepted Accounting Principles through hands-on practice with popular commercial accounting software packages that are currently used in business.

## **FINANCE AND INVESTMENT (5258)**

A C40/AHD/THD Elective/Directed Elective

2 semester course, 2 semesters required, 1 credit per semester,

Prerequisite: Accounting, Advanced Accounting, Algebra II

Recommended Grades: 11-12

Banking and Investment Capstone addresses the need of schools in areas that have workforce demand in the finance industry. It analyzes and synthesizes high-level skills needed for a multitude of careers in the banking and investment industry. Students learn banking, investments, and other finance fundamentals and applications related to financial institutions, business and personal financial services, investment and securities, risk management products, and corporate finance. The course provides students with work based learning experiences to acquire and apply knowledge and skills in one or more careers in the industry.

## **PERSONAL FINANCE AND BANKING (7150)**

A C40/AHD/THD Elective/Directed Elective

2 semester course, 2 semesters required, 1 credit per semester,

Prerequisite: Principles of Business Management

Recommended Grades: 10-12

Personal Finance and Banking emphasizes management of individual financial resources for growth and maintenance of personal wealth. Covers home buying and mortgage financing, installment financing, life

and health insurance, securities, commodities and other investment opportunities. Students will gain an overview of the banking industry and the financial services provided by banks for individuals and businesses.

### **PRINCIPLES OF BUSINESS MANAGEMENT (4562)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Grades: 9-11

Principles of Business Management examines business ownership, organization principles and problems, management, control facilities, administration, financial management, and development practices of business enterprises. This course will also emphasize the identification and practice of the appropriate use of technology to communicate and solve business problems and aid in decision making. Attention will be given to developing business communication, problem-solving, and decision-making skills using spreadsheets, word processing, data management, and presentation software.

### **PRINCIPLES OF COMPUTING (7138)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Grades: 9-11

Principles of Computing provides students the opportunity to explore how computers can be used in a wide variety of settings. The course will begin by exploring trends of computing and the necessary skills to implement information systems. Topics include operating systems, database technology, cybersecurity, cloud implementations and other concepts associated with applying the principles of good information management to the organization. Students will also have the opportunity to utilize basic programming skills to develop scripts designed to solve problems. Students will learn about algorithms, logic development and flowcharting.

### **TOPICS IN COMPUTER SCIENCE (7351)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Grades 10-12

Topics in Computer Science is designed for students to investigate emerging disciplines within the field of computer science. Students will use foundational knowledge from 7183 Principles of Computing to study the areas of data science, artificial intelligence, app/game development, and security. Students will utilize knowledge related to these areas and programming skills to develop solutions to authentic problems.

### **SMALL BUSINESS OPERATIONS (7147)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Recommended Prerequisites: Principles of Entrepreneurship; New Venture Development

Grades: 11-12

Small Business Operations will help students identify and evaluate the various sources available for funding a new enterprise; demonstrate an understanding of financial terminology; read, prepare, and analyze basic financial

statements; estimating capital requirements and risk, exit strategies; and prepare a budget for their business, including taxes and personnel costs. In addition, the student should be able to explain the importance of working capital and cash management. The student should also be able to identify financing needs, and prepare sales forecasts.

### **STRATEGIC MARKETING (5918)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Recommended Prerequisites: Principles of Business Management

Grades: 11-12

Marketing Fundamentals provides a basic introduction to the scope and importance of marketing in the global economy. Course topics include the seven functions of marketing: promotion, channel management, pricing, product/service management, market planning, marketing information management, and professional selling skills. Emphasis is marketing content but will involve use of oral and written communications, mathematical applications, problem-solving, and critical thinking skills through the development of an integrated marketing plan and other projects.

### **MARKETING FUNDAMENTALS (5914)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Recommended Prerequisites: Principles of Business Management

Grades: 11-12

Marketing Fundamentals provides a basic introduction to the scope and importance of marketing in the global economy. Course topics include the seven functions of marketing: promotion, channel management, pricing, product/service management, market planning, marketing information management, and professional selling skills. Emphasis is marketing content but will involve use of oral and written communications, mathematical applications, problem-solving, and critical thinking skills through the development of an integrated marketing plan and other projects.

### **PERSONAL FINANCIAL RESPONSIBILITY (4540)**

A C40/AHD/THD Elective/Directed Elective

1 semester course, 1 credit per semester

Recommended Grades: 10-12

Personal Financial Responsibility addresses the identification and management of personal financial resources to meet the financial needs and wants of individuals and families, considering a broad range of economic, social, cultural, technological, environmental, and maintenance factors. This course helps students build skills in financial responsibility and decision making; analyze personal standards, needs, wants, and goals; identify sources of income, savings, and investing; understand banking, budgeting, record-keeping and managing risk, insurance and credit card debt.

# **ENGINEERING AND TECHNOLOGY**

## **CIVIL ENGINEERING AND ARCHITECTURE (5650)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Prerequisite - Principles of Engineering

Grades: 11-12

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

## **INTRODUCTION TO ENGINEERING DESIGN (4802)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Grades: 9-11

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

## **PRINCIPLES OF ENGINEERING (5644)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Prerequisite - Introduction to Engineering Design

Grades: 10 -12

Principles of Engineering is a course that focuses on the process of applying engineering, technological, scientific and mathematical principles in the design, production, and operation of products, structures, and systems. This is a hands-on course designed to provide students interested in engineering careers to explore experiences related to specialized fields such as civil, mechanical, and materials engineering. Students will engage in research, development, planning, design, production, and project management to simulate a career in engineering. The topics of ethics and the impacts of engineering decisions are also addressed. Classroom activities are organized to allow students to work in teams and use modern technological processes, computers, CAD software, and production systems in developing and presenting solutions to engineering problems. Schools may use the PLTW curriculum to meet the standards for this course. NOTE: This course aligns with the PLTW Principles of Engineering curriculum.

# **FAMILY AND CONSUMER SCIENCES**

## **CULINARY ARTS (7169)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Prerequisite: Principles of Culinary and Hospitality and Nutrition

Grades 11-12

Culinary Arts teaches students how to prepare the four major stocks, the five mother sauces (in addition to smaller sauces) and various soups. Additional emphasis is placed on the further development of the classical cooking methods. This course will also present the fundamentals of baking science including terminology, ingredients, weights and measures, and proper use and care of equipment. Students will produce yeast goods, pies, cakes, cookies, and quick breads.

## **EARLY CHILDHOOD EDUCATION CURRICULUM (7158)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Prerequisite: Principles of Early Childhood Education

Grades: 10-12

Early Childhood Education Curriculum examines developmentally appropriate environments and activities in various childcare settings while exploring the varying developmental levels and cultural backgrounds of children. Students may be required to complete observations and field experiences with children as related to this course.

## **EARLY CHILDHOOD EDUCATION GUIDANCE (7159)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Prerequisite: Early Childhood Education Curriculum

Grades 11-12

This course allows students to analyze developmentally appropriate guidance, theory and implementation for various early care and education settings. It also provides a basic understanding of the anti-bias/multicultural emphasis in the field of early childhood. Students will be required to complete observations and field experiences with children as part of this course.

## **NUTRITION (7171)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Prerequisite: Principles of Culinary and Hospitality

Grades 10-12

Nutrition students will learn the characteristics, functions and food sources of the major nutrient groups and how to maximize nutrient retention in food preparation and storage. Students will be made aware of nutrient needs throughout the life cycle and to apply those principles to menu planning and food preparation. This course will engage students in hands-on learning of nutritional concepts such as preparing nutrient dense meals or examining nutritional needs of student athletes.

### **PRINCIPLES OF EARLY CHILDHOOD EDUCATION (7160)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Grades 9-11

This course provides students with an overview of skills and strategies necessary to successfully complete a certificate. Additionally, it provides an overview of the history, theory, and foundations of early childhood education as well as exposure to types of programs, curricula and services available to young children. This course also examines basic principles of child development, Developmentally Appropriate Practices (DAP), importance of family, licensing, and elements of quality care of young children with an emphasis on the learning environment related to health, safety, and nutrition. Students may be required to complete observations and field experiences with children as related to this course.

### **PRINCIPLES OF CULINARY AND HOSPITALITY (7173)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Grades: 9-11

Principles of Hospitality is designed to develop an understanding of the hospitality industry and career opportunities, and responsibilities in the food service and lodging industry. Introduces procedures for decision making which affects operation management, products, labor, and revenue. Additionally, this course will help students learn basic principles of sanitation and safety in order to maintain a safe and healthy food service environment. It presents laws and regulations related to safety, fire, and sanitation and how to adhere to them in the food service operation.

### **PRINCIPLES OF TEACHING, DUAL CREDIT (7161)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Grades: 11,12

This course provides a general introduction to the field of teaching. Students will explore educational careers, teaching preparation, and professional expectations as well as requirements for teacher certification. Current trends and issues in education will be examined. A minimum 20 hour classroom observation experience is required for successful completion of this course.

# **HEALTH SCIENCES**

## **PRINCIPLES OF BIOMEDICAL SCIENCES (5218)**

A C40/AHD/THD Elective/Directed Elective

Two semesters – 1 credit per semester

Grades: 9-11

Principles of Biomedical Sciences provides an introduction to this field through “hands-on” projects and problems. Student work involves the study of human medicine, research processes, and an introduction to bioinformatics. Students investigate the human body systems and various health conditions including heart disease, diabetes, hypercholesterolemia, and infectious diseases. A theme through the course is determining factors that led to the death of a fictional person. After determining the factors responsible for the death, the students investigate lifestyle choices and medical treatments that might have prolonged the person’s life. Key biological concepts included in the curriculum are: homeostasis, metabolism, inheritance of traits, feedback systems, and defense against disease. Engineering principles such as the design process, feedback loops, fluid dynamics, and the relationship of structure to function will be included where appropriate. The course is designed to provide an overview of all courses in the Biomedical Sciences program and to lay the scientific foundation necessary for student success in the subsequent courses.

## **ANATOMY AND PHYSIOLOGY (5276)**

A C40/AHD/THD Course

Two semesters – 1 credit per semester

Prerequisites: Biology

Grades: 10-12

Anatomy & Physiology is a course in which students investigate concepts related to Health Science, with emphasis on interdependence of systems and contributions of each system to the maintenance of a healthy body. It introduces students to the cell, which is the basic structural and functional unit of all organisms, and covers tissues, integument, skeletal, muscular and nervous systems as an integrated unit. Through instruction, including laboratory activities, students apply concepts associated with Human Anatomy & Physiology. Students will understand the structure, organization and function of the various components of the healthy body in order to apply this knowledge in all health related fields.

# ENGLISH/LANGUAGE ARTS

## **ENGLISH 9 (1002)**

A C40/AHD/THD Course

Two semesters – 1 credit per semester

Grade Level: 9

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

## **ENGLISH 9, HONORS**

A C40/AHD/THD Course

Two semesters – 1 credit per semester

Grade Level: 9

English 9 Honors is a demanding and accelerated academic course designed to prepare students to take ACP coursework. Vocabulary study includes weekly college-level vocabulary as well as etymology. Students study a variety of classic literary works including *Animal Farm* and *Tale of Two Cities*. Students will lead and participate in literary seminars. Students write extensively both in and out of class. Each student must complete an individual research project. Oral communication demands a more complex and creative style involving dramatic interpretation of literature such as the famous Shakespeare monologues from *Romeo and Juliet*.

## **ENGLISH 10 (1004)**

A C40/AHD/THD Course

Two semesters – 1 credit per semester

Grade Level: 10

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

## **ENGLISH 10, HONORS**

A C40/ AHD/THD Course

Two semesters – 1 credit per semester

Prerequisite: Dept. Approval

Grade Level: 10

In addition to the English 10 content, the English 10 Honors class focuses on the following areas.

English 10 Honors is a challenging accelerated academic course designed to prepare students to take ACP coursework. Vocabulary study includes weekly college-level vocabulary as well as etymology. Students study a variety of classic literary works including *To Kill a Mockingbird* and *Wish You Well* as well as an independently chosen novel from award-winning reading lists. Students will lead and participate in literary Socratic seminars. Students write extensively both in and out of class. Each student must complete an individual research project as well as a portfolio. Oral communication demands a more complex and creative style involving not only debate but also dramatic interpretation.

## **ENGLISH 11 (1006)**

A C40/AHD/THD Course

Two semesters – 1 credit per semester

Grade Level: 11

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

## **ENGLISH 11, HONORS**

A C40/ AHD/THD Course

Two semester – 1 credit per semester

Prerequisite: Dept. Approval

Grade Level: 11

In addition to the English 11 content, English 11 Honors is a challenging accelerated academic course designed to prepare students for English Composition and English Literature for college credit. English 11 Honors is an accelerated study of language, literature, composition, and oral communication focusing on literature with an appropriate level of complexity for this grade band. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to representative works of historical or cultural significance appropriate in classic and contemporary literature balanced with nonfiction. Students write narratives, responses to literature, academic essays (e.g. analytical, persuasive, expository, summary), and more sustained research assignments incorporating visual information in the form of pictures, graphs, charts and tables. Students write and deliver grade-appropriate multimedia presentations and access, analyze, and evaluate online information.

## **ENGLISH 12 (1008)**

A C40/AHD/THD Course

Two semesters – 1 credit per semester

Grade Level: 12

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

## **ACP ENGLISH W131 (COMPOSITION) INDIANA UNIVERSITY, DUAL CREDIT**

A C40/AHD/THD Course

One semester – 1 credit (3 college credit hours)

Prerequisite – English 11 or instructor permission

Grade: 12

The course in Genres of Literature provides the study of techniques and conventions of various literary genres, such as poetry, drama, novel, short story, biography, journal and diary, and essay. The course explores the relationships between form and meaning, specifically how genre shapes our literary understanding and experience. In class discussion and presentations, as well as in writing assignments, students explore the limitations and special abilities of the different genres, ultimately building an appreciation of how genres enable and constrain the articulation of ideas. **Please note that there will be a separate charge of \$25 per credit hour for dual credit courses. Students will be billed directly by the postsecondary institution transcribing the credits. Additionally, the textbooks for dual credit courses are determined by the postsecondary institution as well. Students will be expected to purchase those textbooks outright. Financial aid for these costs may be available. Students should speak with their guidance counselors for further information.**

## **ACP ENGLISH L202 (LITERATURE) INDIANA UNIVERSITY, DUAL CREDIT**

A C40/AHD/THD Course

One semester – 1 credit (3 college credits)

Prerequisite - English W131

Grade: 12

Introduces the student to literature of some complexity and sophistication, developing a critical vocabulary and skills in reading on an advanced level. Analysis of genre: short fiction, poetry, and drama. **Please note that there will be a separate charge of \$25 per credit hour for dual credit courses. Students will be billed directly by the postsecondary institution transcribing the credits. Additionally, the textbooks for dual credit courses are determined by the postsecondary institution as well. Students will be expected to purchase those textbooks outright. Financial aid for these costs may be available. Students should speak with their guidance counselors for further information.**

## **ACP PUBLIC SPEAKING (P155) INDIANA UNIVERSITY, DUAL CREDIT**

A C40/AHD/THD Course

One semester – 1 credit

Grade: 11-12

Prepares students in the liberal arts to communicate effectively with public audiences. Emphasizes oral communication as practiced in public contexts: how to advance reasoned claims in public; how to adapt public oral presentations to particular audiences; how to listen to, interpret, and evaluate public discourse; and how to formulate a clear response. Please note the following: Exceptional attendance is expected and enforced. Class size is capped at 24 students, regardless of how many are taking the course for college credit. (There is a \$45.00 learning resources charge for every student sitting in the classroom, regardless of college credit enrollment status.) **Please note that there will be a separate charge of \$25 per credit hour for students taking this as a dual credit course. Students will be billed directly by the postsecondary institution transcribing the credits. Additionally, the textbooks for dual credit courses are determined by the postsecondary institution as well. Students will be expected to purchase those textbooks outright. Financial aid for these costs may be available. Students should speak with their guidance counselors for further information.**

## **ETYMOLOGY (1060)**

A C40/AHD/THD Course

One semester – 1 credit (3 college credits)

Prerequisite: 4 credits of English/Language Arts

Grade: 11-12

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

## **JOURNALISM (1080)**

A C40/AHD/THD Course

One semester – 1 credit per semester

Grades: 9-12

Journalism, a course based on the Indiana Academic Standards for English/Language Arts and the Indiana High School Journalism Standards, is a study of news elements, journalism history, First Amendment law, ethics, fact and opinion, copy editing, news, and features as they apply to print and digital media products. It includes a comparison study of journalistic writing to other types of English writing with practical application of news, features, editorials, reviews, columns, and digital media writing forms.

**DIGITAL MEDIA (1084)**

A C40/AHD/THD Course

One semester – 1 credit

Grades: 9-12

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

**PEER TUTORING (0520)**

A C40/AHD/THD Course

Two semesters – 2 credits

Prerequisite: Department approval and application

Grades: 10-12

Peer Tutoring provides high school students with an organized exploratory experience to assist students in kindergarten through grade twelve (K-12), through a helping relationship, with their studies and personal growth and development. The course provides opportunities for the students taking the course to develop a basic understanding of individual differences and to explore career options in related fields. Peer Tutoring experiences are preplanned by the teacher trainer and any cooperating teacher under whom the tutoring is to be provided. It must be conducted under the supervision of a licensed teacher. The course provides a balance of class work relating to the development of and use of: (1) listening skills, (2) communication skills, (3) facilitation skills, (4) decision-making skills, and (5) teaching strategies.

# FINE ARTS

## MUSIC

### **ADVANCED CHORUS (4188)**

A C40 and AHD Elective/Directed Elective

Two Semesters – 1 credit per semester

Prerequisite: Audition required

Grades: 10-12

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

### **ADVANCED CONCERT BAND (4170)**

A C40 and AHD Elective/Directed Elective

One Semester – 1 credit per semester

Prerequisite: Audition required

Grades: 9-12

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

### **BEGINNING CHORUS (4182)**

A C40 and AHD Elective/Directed Elective

One semester – 1 credit per semester

Prerequisite: None

Grades: 9-12

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

as a culmination of daily rehearsal and musical goals. Students are required to participate in performance opportunities outside of the school day that support and extend learning in the classroom.

### **INTERMEDIATE CHORUS (4186)**

A C40 and AHD Elective/Directed Elective

One semester – 1 credit per semester

Prerequisite: Beginning Chorus or by audition

Grades: 9-12

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

### **INTERMEDIATE CONCERT BAND (4168)**

A C40 and AHD Elective/Directed Elective

One semester – 1 credit per semester

Prerequisite: Beginning Concert Band or by audition.

Grades: 9-12

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

### **MUSIC HISTORY AND APPRECIATION (4206)**

A C40 and AHD Elective/Directed Elective

One semester – 1 credit

Grades: 9-12

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

## **THEATRE ARTS**

### **THEATRE ARTS (4242)**

A C40 and AHD Elective/Directed Elective

One semester – 1 credit

Grade: 9-12

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

### **THEATRE PRODUCTION (4248)**

A C40 and AHD Elective/Directed Elective

One semester – 1 credit

Grade: 9-12

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

## VISUAL ARTS

### **ART HISTORY (4024)**

A C40 and AHD Elective/Directed Elective

One semester - 1 credit

Grades: 9-12

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

### **CERAMICS (4040)**

A C40 and AHD Elective/Directed Elective

One semester - 1 credit; *the nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.*

Prerequisite: Intro to Two-Dimensional Art

Grades: 9-12

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.

### **DRAWING (4060)**

A C40 and AHD Elective/Directed Elective

One semester - 1 credit; *the nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.*

Prerequisite: Intro to Two-Dimensional Art

Grades: 9-12

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.

### **INTRODUCTION TO TWO-DIMENSIONAL ART (4000)**

A C40 and AHD Elective/Directed Elective

One semester - 1 credit

Grades: 9-12

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.

### **ADVANCED TWO DIMENSIONAL ART (4004)**

A C40 and AHD Elective/Directed Elective

One semester - 1 credit

Prerequisite: Introduction to Two-Dimensional Art

Grades: 9-12

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

### **PAINTING (4064)**

A C40 and AHD Elective/Directed Elective

One semester - 1 credit; *the nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.*

Prerequisite: Intro to Two-Dimensional Art and Drawing

Grades: 9-12

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.

### **PHOTOGRAPHY (4062)**

A C40 and AHD Elective/Directed Elective

One semester - 1 credit; *the nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.*

Prerequisite: Intro to Two-Dimensional Art

Grades: 9-12

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..

### **PRINTMAKING (4066)**

A C40 and AHD Elective/Directed Elective

One semester - 1 credit

Prerequisite: Intro to Two-Dimensional Art

Grades: 9-12

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

### **STUDENT MEDIA (SCHOOL PUBLICATIONS/YEARBOOK) (1086)**

A C40 and AHD Elective/Directed Elective

Two semesters – 1 credit per semester, 8 credits maximum

Prerequisites: Journalism, department approval and application

Fulfills the Fine Arts requirement for Core 40 and AHD

Grades: 10-12

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

# MATHEMATICS

## **ALGEBRA I (2520)**

A C40/AHD/THD Course

Two semesters – 1 credit per semester

Prerequisite: none

Algebra I formalizes and extends the mathematics students learned in the middle grades. Algebra I is made up of six strands: Number Systems and Expressions; Functions; Linear Equations, Inequalities, and Functions; Systems of Equations and Inequalities; Quadratic and Exponential Equations and Functions; and Data Analysis and Statistics. These critical areas deepen and extend understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend. Students will also engage in methods for analyzing, solving, and using quadratic functions. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

## **ALGEBRA II (2522)**

A C40/AHD/THD Course

Two semesters – 1 credit per semester

Prerequisite: Geometry (or must be enrolled in Geometry)

Algebra II builds on work with linear, quadratic, and exponential functions and allows for students to extend their repertoire of functions to include polynomial, rational, and radical functions. Students work closely with the expressions that define the functions, and continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. Algebra II is made up of seven strands: Data Analysis, Statistics, and Probability; Arithmetic and Structure of Expressions; Functions; Systems of Equations and Inequalities; Quadratic Equations and Functions; Exponential and Logarithmic Equations and Functions; and Polynomial, Rational, and Other Equations and Functions. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

## **ALGEBRA II, HONORS**

A C40/AHD/THD Course

Two semesters – 1 credit per semester

Prerequisite: Geometry (or must be enrolled in Geometry)

Honors Algebra II is a course, which expands on the topics of Algebra I and provides further development of the concept of a function. The expanded topics of the course include: (1) relations, functions, equations and inequalities, (2) polynomials and polynomial functions, (3) rational exponents, (4) the complex numbers, sequences, and series, (5) the properties and graphs of conic sections, (6) permutations and combinations, (7) algebraic functions, and (8) exponential and logarithmic functions.

### **AP CALCULUS AB, ADVANCED PLACEMENT (2562)**

A C40/AHD/THD Course

Two semesters – 1 credit per semester

Prerequisite: "C-" in second semester Pre-Calculus

Calculus expands a student's knowledge of topics like functions, graphs, limits, derivatives, and integrals. Additionally, students will review algebra and functions, modeling, trigonometry, etc. Calculus is made up of five strands: Limits and Continuity; Differentiation; Applications of Derivatives; Integrals; and Applications of Integrals. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.. The use of graphing technology is required. **Please note that there may be an additional charge of \$95 to students for taking the AP exam for the AP courses that they take. Financial aid for these costs may be available. Students should speak with their guidance counselors for further information.**

### **FINITE MATHEMATICS (2530)**

A C40/AHD/THD Course

One semester – 1 credit per semester

Prerequisite: Algebra II (Normally taken with Probability and Statistics)

Grade: 12 (Grade 11 with permission)

Finite Mathematics is a collection of mathematical topics, frequently used in business or public policy contexts. It is a course designed for students who will undertake higher-level mathematics in college that may not include calculus. Finite Math is made up of five strands: Sets; Matrices; Networks; Optimization; and Probability. The skills listed in these strands indicate what students should know and be able to do in Finite Math. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

### **GEOMETRY (2532)**

A C40/AHD/THD Course

Two semesters – 1 credit per semester

Prerequisite: Algebra I

Geometry formalizes and extends students' geometric experiences from the middle grades. Students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. Seven critical areas comprise the Geometry course: Logic and Proofs; Points, Lines, Angles, and Planes; Triangles; High School Course Titles and Descriptions 2022-2023 144 Quadrilaterals and Other Polygons; Circles; Transformations; and Three-dimensional Solids. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

## **GEOMETRY, HONORS**

A C40/AHD/THD Course

Two semesters – 1 credit per semester

Prerequisite: Algebra I

Geometry students examine the properties of two- and three-dimensional objects. Proof and logic, as well as investigative strategies in drawing conclusions, are stressed. Properties and relationships of geometric objects include the study of: (1) points, lines, angles and planes; (2) polygons, with a special focus on quadrilaterals, triangles, right triangles; (3) circles; and (4) polyhedra and other solids. Use of graphing calculators and computer drawing programs is encouraged.

## **PRE-CALCULUS: ALGEBRA (2564)**

A C40/AHD/THD Course

One semester – 1 credit per semester

Prerequisite: Algebra II and Geometry

Pre-Calculus: Algebra extends the foundations of algebra and functions developed in previous courses to new functions, including exponential and logarithmic functions, and to sequences and series. The course provides students with the skills and understandings that are necessary for advanced manipulation of angles and measurement. Pre-Calculus: Algebra is made up of five strands: Functions; Quadratic, Polynomial, and Rational Equations and Functions; Exponential and Logarithmic Functions; Sequences and Series; and Conics. The course is designed for students who expect math to be a major component of their future college and career experiences, and as such it is designed to provide students with strong foundations for calculus and other higher-level math courses. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

## **PRE-CALCULUS: TRIGONOMETRY (2566)**

A C40/AHD/THD Course

One semester – 1 credit per semester

Prerequisite: Algebra II and Geometry

Pre-Calculus: Trigonometry provides students with the skills and understandings that are necessary for advanced manipulation of angles and measurement. Trigonometry provides the foundation for common periodic functions that are encountered in many disciplines, including music, engineering, medicine, finance, and nearly all other STEM disciplines. Trigonometry consists of six strands: Unit Circle; Triangles; Periodic Functions; Identities; Polar Coordinates and Complex Numbers; and Vectors. Students will advance their understanding of imaginary numbers through an investigation of complex numbers and polar coordinates. A strong understanding of complex and imaginary numbers is a necessity for fields such as engineering and computer programming. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

### **AP PRE-CALCULUS, ADVANCED PLACEMENT (2563)**

A C40/AHD/THD Course

Two semesters – 1 credit per semester

Prerequisite: Algebra II and Geometry

Grades: 10-12

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

### **PROBABILITY AND STATISTICS (2546)**

A C40/AHD/THD Course

One semester – 1 credit per semester

Prerequisite: Algebra II (Normally taken with Finite Mathematics)

Grade: 12 (Grade 11 with permission)

Probability and Statistics includes the concepts and skills needed to apply statistical techniques in the decision-making process. Probability and Statistics are made up of three strands: Data Analysis; Experimental Design; and Probability. Practical examples based on real experimental data are used throughout. Students plan and conduct experiments or surveys and analyze the resulting data. The use of graphing technology and computer programs is encouraged. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

### **AP STATISTICS, ADVANCED PLACEMENT (2570)**

A C40/AHD/THD Course

Two semesters – 1 credit per semester

Prerequisite: Algebra II

Statistics, Advanced Placement is a course based on content established by the College Board. The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Topics include: (1) exploring data: describing patterns and departures from patterns (2) sampling and experimentation: planning and conducting a study, (3) anticipating patterns: exploring random phenomena using probability and simulation, and (4) statistical inference: estimating population parameters and testing hypotheses. The use of graphing calculators and computer software is required. A comprehensive description of this course can be found on the College Board AP Central Course Description web page at: <http://apcentral.collegeboard.com/apc/public/repository/ap-statistics-course-description.pdf>. **Please note that there may be an additional charge of \$95 to students for taking the AP exam for the AP courses that they take. Financial aid for these costs may be available. Students should speak with their guidance counselors for further information.**

# MULTIDISCIPLINARY

## **CAREER EXPLORATION INTERNSHIP (0530)**

Grade: 12

- Credits: 1 semester course, 1-3 credits per semester, 6 credits maximum
- A minimum of 75 hours of workplace and classroom activities are required for one credit; 150 hours are required for the two credits. Of the 75 or 150 hours, 18 to 36 hours (at least 1 hour a week or the equivalent over a semester or year) must be spent in related classroom instruction. Schools on block schedules may proportionately adjust the total number of hours per week to meet the local standard, provided that students spend at least one hour a week in classroom activities.
- Counts as a Directed Elective or Elective for all diplomas

The Career Exploration Internship course is a paid or unpaid work experience in the public or private sector that provides for workplace learning in an area of student career interests. Unlike the work-based Learning capstone course in which students gain expertise in a specific occupation, the career exploration internship is intended to expose students to broad aspects of a particular industry or career cluster area by rotating through a variety of work sites or departments. In addition to their workplace learning activities, students participate in 1) regularly scheduled meetings with their classroom teacher, or 2) a regularly scheduled seminar with the teacher for the purpose of helping students make the connection between academic learning and their work-related experiences. Specific instructional standards tied to the career cluster or pathway and learning objectives for the internship must be written to clarify the expectations of all parties – the student, parent, employer, and instructor

# PHYSICAL EDUCATION AND HEALTH

## **ELECTIVE PHYSICAL EDUCATION, LIFETIME SPORTS (3560)**

Prerequisite: PE I and II

One semester – 1 Credit

Grades 10 – 12

Elective Physical Education promotes lifetime sport and recreational activities and provides an opportunity for an in-depth study in specific areas. This course includes the study of physical development concepts and principles of sport and exercise as well as opportunities to develop or refine skills and attitudes that promote lifelong fitness. This course 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 to increase their knowledge of fitness concepts. Lifetime Sports includes skill development and the application of rules and strategies of complex difficulty in three movement forms: (1) health-related fitness activities (cardio-respiratory endurance, muscular strength, endurance, flexibility, and body composition); (2) aerobic exercise; (3) individual and dual sports (tennis, badminton, pickleball, bowling, golf, shuffleboard, golf, etc.); (4) outdoor pursuits (in-line skating, walking, orienteering); (5) self-defense. Ongoing assessment includes both written and performance based skill evaluations. A Danville High School uniform is required.

## **ELECTIVE PHYSICAL EDUCATION, FITNESS CENTER (WEIGHTS) (3560)**

Prerequisites: PE I & II

One semester – 1 Credit

Grades 10 – 12

Elective Physical Education promotes lifetime sport and recreational activities and provides an opportunity for an in-depth study in specific areas. This course includes the study of physical development concepts and principles of sport and exercise as well as opportunities to develop or refine skills and attitudes that promote lifelong fitness. Students will have the opportunity to design and develop an appropriate personal fitness program that enables them to achieve a desired level of fitness.

Students will have the following opportunities when developing their fitness program: (1) cardiorespiratory endurance which will involve aerobic workouts done on the track or using fitness equipment including the stationary bicycle, stepper, and/or treadmill, (2) muscular strength and endurance which can involve free weights, plyometrics (jumping and agility drills) and/or quickness drills, (3) Flexibility which can involve step aerobics, land aerobics, jazzercise, and/or yoga, (4) body composition which will require assessments on each individual's body fat, weight and measurements, and (5) nutritional guidelines and proper diet habits to help the individual reach his/her goal in body composition.

On-going assessment includes both written and performance-based skill evaluation, a fitness and nutritional diary kept by the student, and an individual workout program set and performed by the student which will include short and long semester goals. The Danville High School physical education uniform is required.

## **HEALTH AND WELLNESS EDUCATION (3506)**

One semester – 1 credit

Grade: 10

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

## **PHYSICAL EDUCATION I (3542)**

One semester – 1 credit

Grades: 9-12

Physical Education I focuses on instructional strategies through a planned, sequential, and comprehensive physical education curriculum which provides students with opportunities to actively participate in at least four of the following: team sports; dual sport activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance, all of which are within the framework of the skills, knowledge and confidence needed by the student for a lifetime of healthful physical activity and fitness. Ongoing assessment includes both written and performance-based skill evaluation. A Danville High School uniform is required.

## **PHYSICAL EDUCATION II (3544)**

One semester – 1 credit

Grades: 9-12

Physical Education II focuses on instructional strategies through a planned, sequential, and comprehensive physical education curriculum which provides students with opportunities to actively participate in four of the following areas that were not included in Physical Education I: team sports; dual sport activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance, all of which are within the framework of the skills, knowledge and confidence needed by the student for a lifetime of healthful physical activity and fitness. Ongoing assessment includes both written and performance-based skill evaluation. Individual assessments may be modified for individuals with disabilities, in addition to those with IEPs and 504 plans.

## **ADVANCED PHYSICAL EDUCATION I WEIGHTLIFTING (DCHS Freshmen Athletes Only)**

One semester – 1 credit

Grade: 9

Secondary Physical Education I Weightlifting offers 9th grade student-athletes the opportunity to learn the pillars of our weightlifting program in an environment that promotes mastery of technique over increasing weight. Our students

are able to build a large foundation of agility, speed, power, and strength in a structured training program that promotes developing the total student-athlete. This class is open to all 9th Danville Community High School Student-Athletes. Swimming will be incorporated into this course.

**ADVANCED PHYSICAL EDUCATION II WEIGHTLIFTING (DCHS Freshmen Athletes Only)**

One semester – 1 credit

Grade: 9

Secondary Physical Education II Weightlifting offers 9th grade student-athletes the opportunity to learn the pillars of our weightlifting program in an environment that promotes mastery of technique over increasing weight. Our students are able to build a large foundation of agility, speed, power, and strength in a structured training program that promotes developing the total student-athlete. This class is open to all 9th Danville Community High School Student-Athletes. Swimming will be incorporated into this course.

# SCIENCE

## **ADVANCED SCIENCE, FORENSICS (3092)**

A C40, AHD, THD Course

Prerequisites: 1 year of Biological Science, 1 year of Physical Science

Two semesters required – 1 credit per semester

Grades: 11-12

Counts as a science course for all diplomas

Forensic Science is the study of the application of science to the law. This integrated science course is designed to explore the scientific and technological aspects of criminal investigations. Topics will include the study of DNA, glass, blood, fingerprinting, chemical residues, and evidence collection as it relates to forensic issues. Applications to court cases, literature, psychology, and criminology also will be examined. This is a course rich in exploration and lab investigation which applies many disciplines of scientific study such as biology/anatomy, chemistry, and physics to solving crimes.

## **ANATOMY AND PHYSIOLOGY (5276)**

A C40/AHD/THD Course

Two semesters – 1 credit per semester

Prerequisites: Biology, Integrated Chemistry/Physics and/or Chemistry. Chemistry may be taken concurrently with this course.

Grades: 10-12

This is a rigorous course intended for students with an interest in understanding the structure and the workings of the human body. Approximately 60% of this course is spent in laboratory experiences and inquiry-based projects. Approximately 50% of this course covers anatomy and 50% physiology. The human organ systems and their particular physiological processes are studied in depth. A traditional dissection of a higher vertebrate will be performed to identify organ systems equivalent to human anatomy.

## **BIOLOGY I (3024)**

A C40/AHD/THD Course

Two semesters – 1 credit per semester

Grades: 9-10

Biology I is a course based on the following core topics: cellular structure and function, matter cycles and energy transfer; interdependence; inheritance and variation in traits; evolution. Instruction should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation, by designing and conducting investigations guided by the Science and Engineering Practices (SEPS) and crosscutting concepts.

## **BIOLOGY I, HONORS**

A C40/ AHD/THD Course

Two semesters – 1 credit per semester

Grade: 9

Biology I Honors is a course designed for those students who excel in science. In addition to the Biology I content, the Biology I Honors class focuses on the following areas. Students will complete one major long-semester independent inquiry-based project. Approximately 50% of the course includes laboratory experience and inquiry-based projects. Students complete an environmental monitoring project by collecting and analyzing data from Indiana Rivers. Students also actively participate in the Human Genetics Update Conference.

## **ACP BIOLOGY, DUAL CREDIT (IU L100)**

A C40/AHD/THD Course

Two semesters – 5 credits, lab and lecture

Prerequisites: Biology, Integrated Chemistry/Physics and/or Chemistry. Chemistry may be taken concurrently with this course.

Grades: 11-12

Principles of biological organization, from molecules through cells and organisms to populations. Emphasis on processes common to all organisms, with special reference to humans. **Please note that there will be a separate charge of \$25 per credit hour for dual credit courses. Students will be billed directly by the postsecondary institution transcribing the credits. Additionally, the textbooks for dual credit courses are determined by the postsecondary institution as well. Students will be expected to purchase those textbooks outright. Financial aid for these costs may be available. Students should speak with their guidance counselors for further information.**

## **CHEMISTRY I (3064)**

A C40/AHD/THD Course

Two semesters - 1 credit per semesters

Prerequisite: Integrated Chemistry/Physics and/or enrolled in or have credit for Advanced Algebra

Grades: 10-12

Chemistry I is a course based on the following core topics: properties and states of matter; atomic structure and the Periodic Table; bonding and molecular structure; reactions and stoichiometry; behavior of gases; thermochemistry; solutions; acids and bases. Students enrolled in Chemistry I compare, contrast, and synthesize useful models of the structure and properties of matter and the mechanisms of its interactions. Instruction should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation, the Science and Engineering Practices (SEPS) and cross-cutting concepts.

## **CHEMISTRY I, HONORS**

A C40/AHD/THD Course

Two semesters – 1 credit per semester

Prerequisites: Honors Biology and/or Teacher Permission

Grades: 10-12

Chemistry I, Honors is a course designed for those students who excel in science. In addition to the Chemistry I content, the Chemistry I Honors class focuses on the following areas. Approximately 50% of the course is laboratory experience and inquiry-based projects. Students conduct investigative, analytical, qualitative, and quantitative experiments. Students also examine the history and background of chemical phenomena. Students recreate some of the historical experiments to verify equations. Students will also learn to write a formal lab report.

### **ACP CHEMISTRY, DUAL CREDIT (IU C101/121)**

A C40/AHD/THD Course

Two semesters – 1 credit per semester

Prerequisite: Chemistry grade of B or higher and/or permission of instructor

Grades: 11-12

Chemistry Advanced Science, College Credit, is a cooperative program between Indiana University and selected high schools. The Project offers college credit to high school students who enroll in I.U. courses that are offered at their high schools. This credit is transferable to most Indiana colleges. The credit is optional and students may enroll for high school credit only. Students will take a final exam and upon passing receive college credit. Topics include acids and bases, equilibrium, energy relationships, and oxidation-reduction reactions. Students will become more proficient in laboratory skills needed for college and the workplace. This course will enhance students' problem-solving abilities and their understanding of chemical processes. Approximately 50% of the course includes laboratory experiences. **Please note that there will be a separate charge of \$25 per credit hour for dual credit courses. Students will be billed directly by the postsecondary institution transcribing the credits. Additionally, the textbooks for dual credit courses are determined by the postsecondary institution as well. Students will be expected to purchase those textbooks outright. Financial aid for these costs may be available. Students should speak with their guidance counselors for further information.**

### **EARTH AND SPACE SCIENCE (3044)**

A C40/AHD/THD Course

Two semesters- 1 credit per semester

Prerequisite: two credits science coursework

Grades: 9 -12

Earth and Space Science I is a course focused on the following core topics: universe; solar system; Earth cycles and systems; atmosphere and hydrosphere; solid Earth; 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 the Science and Engineering Practices (SEPS) and cross-cutting concepts.

### **INTEGRATED CHEMISTRY/PHYSICS (3108)**

A C40/AHD/THD Course

Two semesters - 1 credit per semester

Prerequisite: none

Grades: 9-10

Integrated Chemistry-Physics is a course focused on the following core topics: constant velocity; uniform acceleration; Newton's Laws of motion (one dimension); energy; particle theory of matter; describing substances; representing chemical change; electricity and magnetism; waves; nuclear energy. Instruction should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation using the Science and Engineering Practices (SEPS) and cross-cutting concepts.

## **AP PHYSICS, ADVANCED PLACEMENT (3080)**

A C40/ AHD/THD Course

Two semesters – 1 credit per semester.

Prerequisite: Integrated Chemistry/Physics and/or Chemistry, enrolled in or have credit for Advanced Algebra

Grades: 11-12

AP Physics is a course based on the content established and copyrighted by the College Board. Physics 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. **Please note that there may be an additional charge of \$95 to students for taking the AP exam for the AP courses that they take. Financial aid for these costs may be available. Students should speak with their guidance counselors for further information.**

# SOCIAL STUDIES

## **ECONOMICS (1514)**

A C40/ AHD/THD Course (counts as an elective for all diplomas)

Qualifies as a quantitative reasoning course

One semester – 1 credit

Grades: 11-12

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.

## **INDIANA STUDIES (1518)**

A C40/AHD/THD Course (counts as an elective for all diplomas)

One semester – 1 credit

Grades: 9-12

Indiana Studies is an integrated course that compares and contrasts state and national developments in the areas of politics, economics, history, and culture. The course uses Indiana history as a basis for understanding current policies, practices, and state legislative procedures. It also includes the study of state and national constitutions from a historical perspective and as a current foundation of government. Examination of individual leaders and their roles in a democratic society will be included and student will examine the participation of citizens in the political process. Selections from Indiana arts and literature may also be analyzed for insights into historical events and cultural expressions.

## **PSYCHOLOGY (1532)**

A C40/AHD/THD Course

One semester – 1 credit

Grades: 10-12

Psychology is the scientific study of mental processes and behavior. The course is divided into eight content areas: History and Scientific Method, Biological Basis for Behavior, Development, Cognition, Personality and Assessment, Abnormal Psychology, Socio-Cultural Dimensions of Behavior, and Psychological Thinking. History and Scientific Method explores the history of psychology, the research methods used, and the ethical considerations that must be utilized. Biological Basis for Behavior focuses on the way the brain and nervous system function, including sensation, perception, motivation and emotion. Development analyzes the changes through one's life including the physical, cognitive, emotional, social and moral development. Cognition focuses on learning, memory, information processing, and language development. Personality and Assessment explains the approaches used to explain one's personality and the assessment tools used. Abnormal Psychology explores psychological disorders and the various treatments used for them. Socio-Cultural Dimensions of Behavior covers topics such as conformity, obedience, perceptions, attitudes and influence of the group on the individual. Psychological Thinking explores how to think like a psychologist and expand critical thinking skills needed in the day-to-day life of a psychologist.

**AP PSYCHOLOGY, ADVANCED PLACEMENT (1558)**

A C40/AHD/THD Course

Two semesters - 1 credit per semester

Grades: 11,12

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

**SOCIOLOGY (1534)**

A C40/AHD/THD Course

One semester – 1 credit

Grades: 11-12

Sociology allows students to study human social behavior from a group perspective. The sociological perspective is a method of studying recurring patterns in people's attitudes and actions and how these patterns vary across time, cultures, and in social settings and groups. Students describe the development of sociology as a social science and identify methods of research. Through research methods such as scientific inquiry students examine society, group behavior, and social structures. The influence of culture on group behavior is addressed through institutions such as the family, religion, education, economics, community organizations, government, and political and social groups. The impact of social groups and institutions on group and individual behavior and the changing nature of society will be examined. Influences on group behavior and social problems are included in the course. Students also analyze the role of individuals in the community and social problems in today's world.

**UNITED STATES GOVERNMENT (1540)**

A C40/AHD/THD Course

One semester – 1 credit

Grades 11-12

United States Government provides a framework for understanding the purposes, principles, and practices of constitutional representative democracy in the United States. Responsible and effective participation of citizens is stressed. Students understand the nature of citizenship, politics, and governments and understand the rights and responsibilities of citizens and how these are part of local, state, and national government. Students examine how the United States Constitution protects rights and provides the structure and functions of various levels of government. Analysis of how the United States interacts with other nations and the government's role in world affairs is included in this course. Using primary and secondary resources, students will articulate, evaluate, and defend positions on political issues. As a result, they will be able to explain the role of individuals and groups in government, politics, and civic activities and the need for civic and political engagement of citizens in the United States.

### **AP US GOVERNMENT AND POLITICS, ADVANCED PLACEMENT (1560)**

A C40/AHD/THD Course

Two semesters - 1 credit per semester

Grades 11 and 12

AP United States Government and Politics is a course based on the content established and copyrighted by the College Board. AP U.S. Government and Politics provides a college-level, nonpartisan introduction to key political concepts, ideas, institutions, policies, interactions, roles, and behaviors that characterize the constitutional system and political culture of the United States. Students study U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions among political institutions, processes, and behavior. They also engage in disciplinary practices that require them to read and interpret data, make comparisons and applications, and develop evidence based arguments. In addition, they complete a political science research or applied civics project.

### **UNITED STATES HISTORY (1542)**

A C40/AHD/THD Course

Two semesters – 1 credit per semester

Grade: 11-12

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

### **AP UNITED STATES HISTORY, ADVANCED PLACEMENT (1562)**

A C40 and AHD Course

Two semesters – 1 credit per semester

Grade: 11-12

AP United States History is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. AP United States History focuses on developing students' abilities to think conceptually about U.S. history from approximately 1491 to the present and apply historical thinking skills as they learn about the past. Seven themes of equal importance — identity; peopling; politics and power; work, exchange, and technology; America in the world; environment and geography; and ideas, beliefs, and culture — provide areas of historical inquiry for investigation throughout the course. These require students to reason historically about continuity and change over time and make comparisons among various historical developments in different times and places. **Please note that there may be an additional charge of \$93 to students for taking the AP exam for the AP courses that they take. Financial aid for these costs may be available. Students should speak with their guidance counselors for further information.**

### **WORLD GEOGRAPHY (1546)**

A C40/AHD/THD Course

One semester 1 credit

Grades: 10-12

World Geography allows students to study the interaction of humans and their environments in a world setting. Students study global patterns of physical and cultural characteristics, including the Earth/sun relationship, atmospheric and oceanic circulation, landforms, climate, vegetation, population, economic and political structures, culture, cultural diffusion, and international and interregional connections. Using maps, geographic representations and technology such as geographic information systems (GIS) students will examine spatial relationships, the interaction of physical and cultural characteristics of designated places, areas, or regions. Students are expected to apply knowledge of geographic concepts and uses of geography to inquiry, research, and use participatory processes. Guiding course content are the themes of location, characteristic of place, human/environmental interaction, movement between places, and regions. Emphasized are elements of the National Geography Standards: The World in Spatial Semesters, Places and Regions, Physical Systems, Human Systems and Environment and Society.

### **WORLD HISTORY AND CIVILIZATION (1548)**

A C40/AHD/THD Course

Two semesters – 1 credit per semester

Grades: 9-12

World History and Civilization emphasizes events and developments in the past that greatly affected large numbers of people across broad areas and that significantly influenced peoples and places in subsequent eras. Key events related to people and places as well as transcultural interaction and exchanges are examined in this course. Students are expected to compare and contrast events and developments involving diverse peoples and civilizations in different regions of the world. They will examine examples of continuity and change, universality and particularity, and unity and diversity among various peoples and cultures from the past to the present. Students are also expected to practice and process skills of historical thinking and research and apply content knowledge to the practice of thinking and inquiry skills and processes. There will be continuous and pervasive interactions of processes and content, skills and substance, in the teaching and learning of history.

### **AP WORLD HISTORY, ADVANCED PLACEMENT (1612)**

A C40/AHD/THD Course

Two semesters – 2 semester course, 1 credit per semester

Grades: 10-12

World History, Advanced Placement is a course that provides students with the content established by the College Board. The course will have a chronological frame from the periods 8000 B.C.E. to the present. AP World History focuses on five overarching themes: Interaction between Humans and the Environment, Development and Interaction of Cultures, State-Building, Expansion, and Conflict, Creation, Expansion, and Interaction of Economic Systems, Development and Transformation of Social Structures. A comprehensive description of this course can be found on the College Board AP Central Course Description web page. **Please note that there may be an additional charge of \$93 to students for taking the AP exam for the AP courses that they take. Financial aid for these costs may be available. Students should speak with their guidance counselors for further information.**

# WORLD LANGUAGES

## **FRENCH I (2020)**

A Core 40/AHD/THD Course

Two semesters – 1 credit per semester

Grades: 9-12

French I, a course based on Indiana's Academic Standards for World Languages, introduces students to effective strategies for beginning French language learning, and to various aspects of French--speaking culture. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief guided conversations on familiar topics, and write short passages with guidance. This course also emphasizes the development of reading and listening comprehension skills, such as reading isolated words and phrases in a situational context and comprehending brief written or oral directions. Additionally, students will examine the practices, products and perspectives of French--speaking culture; recognize basic routine practices of the target culture; and recognize and use situation-appropriate non-verbal communication. This course further emphasizes making connections across content areas and the application of understanding French language and culture outside of the classroom.

## **FRENCH II (2022)**

A Core 40/AHD/THD Course

Two semesters – 1 credit per semester

Prerequisite: French I

Grades: 10-12

French II, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for French language learning by encouraging the use of the language and cultural understanding for self--directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write cohesive passages with greater independence and using appropriate formats. This course also emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and comprehending longer written or oral directions. Students will address the presentational mode by presenting prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will describe the practices, products and perspectives of French--speaking culture; report on basic family and social practices of the target culture; and describe contributions from the target culture. This course further emphasizes making connections across content areas and the application of understanding French language and culture outside of the classroom.

### **FRENCH III (2024)**

A Core 40/AHD/THD Course

Two semesters – 1 credit per semester

Prerequisite: French II

Grades: 11-12

French III, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for French language learning by facilitating the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write cohesive information with greater detail. This course also emphasizes the continued development of reading and listening comprehension skills, such as using cognates, synonyms and antonyms to derive meaning from written and oral information, as well as comprehending detailed written or oral directions. Students will address the presentational mode by presenting student-created material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will continue to develop understanding of French-speaking culture through recognition of the interrelations among the practices, products and perspectives of the target culture; discussion of significant events in the target culture; and investigation of elements that shape cultural identity in the target culture. This course further emphasizes making connections across content areas as well the application of understanding French language and culture outside of the classroom.

### **ACP FRENCH LANGUAGE, (IU) DUAL CREDIT (2026)**

A Core 40/AHD/THD Course

Two semester– 3 college credits

Prerequisites: French III

Grades: 12

French Language covers the equivalent of a third-year college course in French composition and conversation or a third-year college course in introduction to French literature. French Language, Advanced Placement, emphasizing the use of French for active communication, has as its objective the development of the following competencies: the ability to comprehend spoken French in various contexts; a French vocabulary sufficiently ample for reading newspaper and magazine articles, literary texts, and other non-technical writings without dependence on a dictionary; and the ability to express oneself coherently, resourcefully, and with reasonable accuracy and fluency in both written and spoken French.

Course content might best reflect interests shared by the students and the teacher, e.g., the arts, current events, literature, culture, sports, etc. The focus of the course is developing language skills that are useful in themselves and that can be applied to various activities and disciplines rather than being limited to any specific body of subject matter. Extensive practice in the organization and writing of compositions should also be emphasized. **Please note that there will be a separate charge of \$25 per credit hour for dual credit courses. Students will be billed directly by the postsecondary institution transcribing the credits. Additionally, the textbooks for dual credit courses are determined by the postsecondary institution as well. Students will be expected to purchase those textbooks outright. Financial aid for these costs may be available. Students should speak with their guidance counselors for further information.**

**SPANISH I (2120)**

A Core 40/AHD/THD Course

Two semesters – 1 credit per semester

Grades: 9-12

Spanish I, a course based on Indiana's Academic Standards for World Languages, introduces students to effective strategies for beginning Spanish language learning, and to various aspects of Spanish--speaking culture. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief guided conversations on familiar topics, and write short passages with guidance. This course also emphasizes the development of reading and listening comprehension skills, such as reading isolated words and phrases in a situational context and comprehending brief written or oral directions. Additionally, students will examine the practices, products and perspectives of Spanish--speaking culture; recognize basic routine practices of the target culture; and recognize and use situation--appropriate non--verbal communication. This course further emphasizes making connections across content areas and the application of understanding Spanish language and culture outside of the classroom.

**SPANISH II (2122)**

A Core 40/AHD/THD Course

Two semesters – 1 credit per semester

Prerequisite: Spanish I

Grades: 10-12

Spanish II, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Spanish language learning by encouraging the use of the language and cultural understanding for self--directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write cohesive passages with greater independence and using appropriate formats. This course also emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and comprehending longer written or oral directions. Students will address the presentational mode by presenting prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will describe the practices, products and perspectives of Spanish--speaking culture; report on basic family and social practices of the target culture; and describe contributions from the target culture. This course further emphasizes making connections across content areas and the application of understanding Spanish language and culture outside of the classroom.

**SPANISH III (2124)**

A Core 40/AHD/THD Course

Two semesters – 1 credit per semester

Prerequisite: Spanish II

Grades: 11-12

Spanish III, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Spanish language learning by facilitating the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write cohesive information with greater detail. This course also emphasizes the continued development of reading and listening comprehension skills, such as using cognates, synonyms and antonyms to derive meaning from written and oral information, as well as comprehending detailed written or oral directions. Students will address the presentational mode by presenting student-created material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will continue to develop understanding of Spanish-speaking culture through recognition of the interrelations among the practices, products and perspectives of the target culture; discussion of significant events in the target culture; and investigation of elements that shape cultural identity in the target culture. This course further emphasizes making connections across content areas as well the application of understanding Spanish language and culture outside of the classroom.

**ACP SPANISH LANGUAGE, (IU) DUAL CREDIT (2126)**

A Core 40/AHD/THD Course

Two semesters – 3 college credits

Prerequisites: Spanish III

Grades: 12

Spanish Language is a course covering (1) any advanced course offered for credit by an accredited postsecondary institution through an adjunct agreement with a secondary school, or (2) any other postsecondary world language course offered for dual credit under the provisions of 511 IAC 6--10. **Please note that there will be a separate charge of \$25 per credit hour for dual credit courses. Students will be billed directly by the postsecondary institution transcribing the credits. Additionally, the textbooks for dual credit courses are determined by the postsecondary institution as well. Students will be expected to purchase those textbooks outright. Financial aid for these costs may be available. Students should speak with their guidance counselors for further information.**

# AREA 31 CAREER PROGRAMS

## Career and Technical Education

Career and Technical Education (CTE) Programs prepare students for careers and/or further study at a post-secondary institution. Most programs are offered at the Area 31 Career Center at Ben Davis High School. Opportunities exist for students of all abilities in a variety of programs. Area 31 does not discriminate on the basis of race, color, gender, national origin, religion, creed, disability, sexual orientation or gender identity. Local employers provide curriculum direction and employment, including work based learning experiences. Most career and technical education programs enable a student to receive college credit. Some programs offer state approved industry certifications that can be used to meet technical honors diploma requirements. Other departments including Business, Communications, Science, and Engineering and Technology Education have course offerings that will help students choose a career pathway.

*NOTE: Before enrolling in any Career and Technical Education program, the student must complete an enrollment form and return it to a counselor.*

Course offerings include:

- Advanced Manufacturing: Industrial Maintenance I & II
- Automotive Service Technology I & II\*\*
- Aviation Flight Technology\*\*
- Aviation Maintenance Technology I\*\*
- Collision Repair Technology I & II\*\*
- Construction Trades I & II\*\*
- Cosmetology I & II\*\*
- Criminal Justice I\*\*
- Culinary Arts I (Culinary Arts and Hospitality Management)\*\*
- Culinary Arts II (Advance Culinary Arts)\*\*
- Dental Careers
- Digital Integrated Manufacturing I & II\*\*
- Early Childhood Education I\*\*
- Early Childhood Education II (WBL)\*\*
- Emergency Medical Services \*\*
- Fire and Rescue I\*\*
- Graphic Imaging Technology I & II\*\*
- Health Science Education I\*\*
- Health Science Education II (CNA WBL)
- Heating and Air (HVAC I & II)\*\*
- Horticulture Science I & II\*\*
- Medical Assisting\*\*
- Networking & Cyber Security I & II\*\*
- Pharmacy Tech I\*\*
- Pharmacy Tech II (WBL)\*\*
- Precision Machining I & II\*\*
- Radio Broadcasting I & II\*\*
- Supply Chain Management\*\*
- Television Broadcasting I & II\*\*
- Tractor/Trailer Operation \*\*
- Welding Technology\*\*

**\*\*College credit available; dual credits offered may change to align with NLPS (Next Level Programs of Study)**

*Note: Indiana college credit is generally transferable from one Indiana educational institution to another; however, students and parents should research the transfer themselves just to be sure. One educational institution cannot make a transfer call for another. Students and parents should contact an advisor at the institution where they want to attend and ask if the credit being offered will count toward the degree of their choice.*

### **ADVANCED MANUFACTURING: INDUSTRIAL MAINTENANCE I**

### **ADVANCED MANUFACTURING: INDUSTRIAL MAINTENANCE II**

Length/Credits: 3 periods – 3 credits

Offered: 4 semester program

Open to: Grade 11, 12

Prerequisite: Algebra I and English 10

Dual Credit: Ivy Tech Community College – 6 credits

- Identify basic manufacturing processes and major types of production systems
- Describe the need for workplace safety and workplace safety training programs
- Discuss basic blueprint reading fundamentals, and quality systems
- Perform basic measurement using precision measuring tools
- Explain the basic concepts of electrical, hydraulic, and pneumatic power systems
- Demonstrate a general knowledge of non-traditional manufacturing processes and automation
- Describe the design, tooling and production aspects of manufacturing
- Describe the basic concepts of machine control, machine automation, and electrical control
- Discuss the concepts of Lean Manufacturing, and Total Productive Maintenance.

Ivy Tech Community College credit can be earned for the following courses:

*ADMF 102      Technology in Adv. Manufacturing      3 credits*

*ADMF 101      Key Principles of Adv. Manufacturing      3 credits*

### **AUTOMOTIVE SERVICE TECHNOLOGY I**

### **AUTOMOTIVE SERVICE TECHNOLOGY II**

Length/Credits: 3 period block; 3 credits

Offered: 4 semester program

Open to: Grades 11, 12

Prerequisite: Algebra I and English 10

Dual Credit: Ivy Tech Community College – 21 credits

- Develop skills for entry level positions in eight specialty areas based on National Institute for Automotive Service Excellence: automatic transmission/transaxle, brakes, electrical systems, engine performance, engine repair, heating and air conditioning, manual drive train and axles, and suspension and steering
- Work with customers to service real vehicles
- Work-based learning experience possible for second year seniors with recommendation; transportation required to worksite

- Can earn ASE (Automotive Service Excellence) certifications and Maintenance Light Repair (MLR) certification from Ivy Tech

Ivy credit can be earned for the following courses:

Year 1

AUTI 100	Basic Automotive Service	3 credits
AUTI 111	Electrical Systems I	3 credits
AUTI 121	Break Systems I	3 credits
AUTI 122	Steering and Suspension	3 credits
AUTI 145	Driveline Service	3 credits

Year 2

AUTI 131	Engine Performance	3 credits
AUTI 141	Engine Fundamentals	3 credits

**AVIATION FLIGHT TECHNOLOGY**

Length/Credits: 3 periods; 3 credits

Offered: 2 semester program

Open to: Grades 11, 12

Prerequisite: Algebra 1 and English 10

Dual Credit: Vincennes University - 18 credits

Note: Students must provide their own transportation to ATC, 2175 S. Hoffman Road, Indianapolis; Accuplacer testing required for acceptance (Reading: 231+, Writing: 231+, Math: 245+)

- Introduce students to general aviation industry, including: aircraft manufacturing, airline operations, air freight, airport management, government services, aviation safety regulations, and certifications
- Learn skills needed to pass the Federal Aviation Agency written pilot examination
- Study aircraft hydraulic systems, aircraft electrical systems, landing gear, break systems, pressurization, constant speed propellers, prop synchrophasers, de-ice and anti-ice break systems, airframe construction techniques, and radar
- Develop skills for aircraft instrumentation, radios and systems
- Explore weather theory and data interpretation as it relates to aviation
- This course is provided at the Vincennes Airport Technology Center, Students must provide their own transportation

Vincennes credit may be earned for the following courses:

Sem. 1 (fall)

AMNT 100	Intro to Aviation	3 credits
AFLT 210	Aircraft Systems, Perf. & Aerodynamics	3 credits
AFLT 291	Aviation Law and Regulations	3 credits

Sem. 2 (spring)

AFLT 100	Primary Ground School	4 credits
AFLT 225	Human Factors and Safety	2 credits
AFLT 285	Aviation Weather	3 credits

## **AVIATION MAINTENANCE I**

*Length/Credits: 3 period block; 3 credits*

Offered: 2 semester program

Open to: Grade 11, 12

Prerequisite: Algebra 1 and English 10

Dual Credit: Vincennes University -16 credits

Note: Students must provide their own transportation to ATC, 2175 S. Hoffman Road, Indianapolis; Accuplacer testing required for acceptance (Reading: 231+, Writing: 231+, Math: 245+)

- Study the mechanics of an airplane engine; how it works, and how to repair
- Study and experience aircraft servicing, operations, general electricity, publications, instrumentation, fire protection, cabin atmosphere, fuel systems and welding
- Learn from instruction by Vincennes University at the Aviation Technology Center at Indianapolis International Airport
- Requires excellent attendance (missed instructional time must be made up as required by F.A.A. regulations).

Vincennes credit can be earned for the following courses:

### Sem. 1 (fall)

AMNT 106 Materials, Process, Welding 4 credits

AMNT 166 Composite & Nonmetallic Structures 4 credits

### Sem. 2 (spring)

AMNT 102 General Aviation Maintenance 4 credits

AMNT 162 Aircraft Sheet Metal 4 credits

## **COLLISION REPAIR TECHNOLOGY I**

## **COLLISION REPAIR TECHNOLOGY II**

*Length/Credits: 3 period block; 3 credits*

Offered: 4 semester program

Open to: Grades 11, 12

Prerequisite: Algebra 1 and English 10

Dual Credit: Vincennes University – 16 credits

Note: Juniors are scheduled into the morning class; seniors are scheduled into the afternoon class.

- Learn to work on the bodies of cars and move into a wide variety of job possibilities
- Learn basics of computerized frame measuring; computerized estimate writing; metal working skills; hammer and dolly; filler applications, blocking and sanding; shrinking and stretching methods; refinish techniques and use of spray painting equipment, computerized mixing and matching of paints (solvent and water based)
- Develop skills in MIG welding, plastic welding and plasma cutting
- Provide required work clothing and shoes

- Work-based learning experience possible for second year seniors with recommendation; transportation required to worksite; basic hand tools required for employment
- Can earn ASE (Automotive Service Excellence) certifications and SP2 Safety Certification

Vincennes University credits may be earned for the following courses:

1<sup>st</sup> Year

<i>BODY 100</i>	<i>Non-Structural Analysis Damage Repair</i>	<i>3 credits</i>
<i>BODY 100L</i>	<i>Non-Structural Analysis Damage Repair –Lab</i>	<i>4 credits</i>
<i>AUTO 105</i>	<i>Transportation Fundamentals</i>	<i>2 credits</i>

2<sup>nd</sup> Year

<i>BODY 150</i>	<i>Painting and Refinishing</i>	<i>3 credits</i>
<i>BODY 150L</i>	<i>Painting and Refinishing-Lab</i>	<i>4 credits</i>

**CONSTRUCTION TRADES I**

**CONSTRUCTION TRADES II**

Length/Credits: 3 period block; 3 credits

Offered: 4 semester program

Open to: Grades 11, 12

Prerequisite: Algebra 1 and English 10

Dual Credit: Ivy Tech (Indy) – 15 credits

- Experience construction from the foundation up
- Explore career possibilities in the construction industry: carpentry, masonry, electrical, plumbing, concrete, painting, roofing, and drywall
- Earn OSHA certification
- Build a new home/building or renovate an existing building; emphasis placed on construction and practice
- Work in the heat and cold and everything in between; will need coveralls and winter clothing; tools, approximate cost \$60

Ivy Tech - Indy credits for the following courses:

Year 1

<i>BCTI 100</i>	<i>Intro to Construction</i>	<i>3 credits</i>
<i>BCTI 101</i>	<i>Intro to Carpentry- part 1</i>	<i>3 credits</i>
<i>BCTI 103</i>	<i>Carpentry Framing &amp; Finish,</i>	<i>3 credits</i>

Year 2

<i>BCTI 102</i>	<i>Intro to Carpentry-part 2</i>	<i>3 credits</i>
<i>BCTI 104</i>	<i>Carpentry Framing &amp; Finish, 2</i>	<i>3 credits</i>

**COSMETOLOGY I**

**COSMETOLOGY II**

Length/Credits: 4 period block; 3 credits

Offered: 4 semester program

Open to: Grades 11, 12

Prerequisite: Algebra 1 and English 10

Note: Applicants must have a cumulative GPA of 2.0 (C average) and good attendance record

Dual Credit: Vincennes University – 28 credits

- Develop proficiency in all skills of beauty culture to qualify for the State Board of Beauty Culture examination
- Attend 4-hour class, am or pm at Ben Davis High School; or am at PJ's in Brownsburg for first year students
- Attend P. J.'s Beauty College in Plainfield or Brownsburg for second year students; must have own transportation and attend on Saturdays
- Demonstrate skills in shampoos and sets, iron outs, updos, permanents, relaxers, scalp treatments, facial treatments, haircuts, haircolor, manicures, pedicures, waxing, proper sanitation, and personal hygiene
- Complete required 1500 hours in two-year period;
- Provide services on manikins, other students, and clients hair, skin and nails
- Purchase beautician kit before the start of school; contains supplies and materials used every day; 1<sup>st</sup> year cost is approximately \$650; 2<sup>nd</sup> year cost determined by PJ's (approximately \$200)
- Provide a Non-refundable deposit of \$50 by June 1<sup>st</sup>; credited toward the cost of the first year kit
- Indiana State Board of Cosmetology Certification

Vincennes University credit can be earned for the following courses with required grade. Identified

\*courses must pass Accuplacer testing:

Year 1

\*COSM 100 Cosmetology I 7 credits

COSM 150 Cosmetology II 7 credits

Year 2

COSM 200 Cosmetology III 7 credits

COSM 250 Cosmetology IV 7 credits

**CRIMINAL JUSTICE I**

Length/Credits: 3 period block; 3 credits

Offered: 2 semester program

Open to: Grades 11, 12

Prerequisite: Algebra 1 and English 10

Dual Credit: Vincennes University- 12 credits

- Study fundamentals of criminal investigation, theory and history; and techniques appropriate to specific crime scenes
- Learn traffic administration and control: its impact as a control method, driver licensing local traffic control systems, accident causation and investigation, identification and analysis of traffic problems, traffic safety coordination, and the use of selective enforcement as a method of traffic control
- Study US criminal justice system
- Explore forensic science and its value in the courtroom: laboratory procedures and capabilities; crime scene searching and sketching; photography; firearms and tool mark identification; fingerprints; shoe and tire impressions; headlamp examination; arson; analysis and preservation of trace evidence
- Uniform required ( approximately \$150)

NOTICE: Students in this program may be assigned to a Brownsburg or Wayne Township location based on considerations such as program enrollment numbers and the student's home high school. The Area 31 Enrollment Committee makes enrollment decisions and placement decisions are made by Area 31 Career Center administration.

Vincennes University credits may be earned for the following courses:

Fall Semester

LAWE 101 *Basic Police Operations* 3 credits  
 LAWE 150 *Criminal Minds & Deviant Behav.* 3 credits

Spring Semester

LAWE 100 *Survey of Criminal Justice* 3 credits  
 LAWE 145 *Ethics & Professionalism* 3 credits

**CULINARY ARTS AND HOSPITALITY  
 MANAGEMENT (I)  
 ADVANCED CULINARY ARTS (II)**

Length/Credits: 3 period block; 3 credits  
 Offered: 4 semester program  
 Open to: Grades 11, 12  
 Prerequisite: Algebra 1 and English 10  
 Dual Credit: Vincennes University – 36 credits



Early College Program -  
 Students in this program work toward a Vincennes  
 Associate Degree

- Prepare for entry-level positions in the culinary field, and who knows... maybe even open your own restaurant one day!
- Learn safety and sanitation, food costs, management skills, and continued exploration of basic cooking techniques, table service, food and culture, and careers
- Gain first hand kitchen and dining room experience by operating a student run restaurant open for the public
- Explore employment opportunities include prep cook, line cook, kitchen manager, sous chef, or chef host/hostess, servers assistant, server, assistant manager, or manager.
- Earn nationally recognized ServSafe Certification
- Required uniform: chef coat (3), hat (2), pants (2), and apron; approximate cost \$130

Vincennes University credit can be for the following courses:

Year 1 - Fall

CULN 110 *Quantity Food Production* 5 credits  
 REST 100 *Intro to Hospitality Mgmt.* 3 credits  
 REST 120 *Food Service Sanitation* 3 credits

Year 1 – Spring

CULN 210 *Pastry & Bake Shop Production* 5 credits  
 REST 230 *Menu Planning & Facility Design* 3 credits

Year 2 – Fall

CULN 150 *Adv Quantity and Food – Lab* 5 credits  
 CULN 215 *Supervision of Quantity Foods* 3 credits  
 REST 155 *Quantity Food Purchase* 3 credits

Year 2 - Spring

REST 213 Beverage III – Non-Alcohol Bever. 1 credit  
CULN 260 Haute Cuisine & Specialty 5 credits

*Note: Some of the courses may require student payment of \$25 per credited hour in order to earn the credit.*

### **DENTAL CAREERS**

Length/Credits: 3 period block; 3 credits

Offered: 2 semester program

Open to: Grade 12

Prerequisite: Algebra 1 and English 10

Dual Credit:

- Participate in a program accredited by the Dental Assisting National Board
- Receive hands-on training to develop skills necessary to succeed on the job as a dental assistant
- Perform duties such as instrument sterilization, tray setups, four-handed dentistry, equipment maintenance, impressions, model trimming, charting, and dental reception duties
- Pursue National Entry Level Dental Assistant Certification (NELDA) and an Indiana Radiology License
- Required to provide a TB test and documentation, and a copy of Hepatitis vaccination series
- Required to wear ceil blue scrubs and white tennis shoes

### **DIGITAL INTEGRATED MANUFACTURING I**

### **DIGITAL INTEGRATED MANUFACTURING II**

Length/Credits: 3 period block; 3 credits

Offered: 4 semester program

Open to: Grades 11, 12

Prerequisite: Algebra 1 and English 10

Dual Credit: Ivy Tech Community College – 12 Credits

- Earn OSHA 10 Hour Safety Training
- Study Blueprint development & reading
- Study various types of material handling
- Learn maintenance awareness skills
- Learn various types of machine operations and hand tools
- Learn principles of manufacturing processes and LEAN Manufacturing
- Learn precision measurement and measurement conversions
- Study various Quality concepts and techniques
- Learn Industrial Internet of Things (IoT)
- Learn Programming of Programmable Logic Controllers (PLC)
- Learn the operation of High and low voltage electrical circuits & sensors
- Learn Relay control circuits
- Study various types of Ethernet and Network communications
- Learn Robotic theory & programming
- Learn CNC machining & programming
- Study the operations of Hydraulics & fluid power, Pneumatics, and compressed air systems
- Learn Mechanical power transmission, including gears, belts, and chain drives

- Students can earn Ivy Tech credits and certifications such as OSHA 10, and Alliance certifications.

Ivy Tech Community College credits upon successful completion of coursework

Year 1

*SMDI 110 Introduction of IIOT 3 Credits*

*SMDI 111 Technology in Smart Man & Digital 3 Credits*

Year 2

*SMDI 130 Electrical Systems in Manufacturing – Capstone 3 credits*

*INDT 205 Programmable Automation Controls – Capstone 3 credits*

**EARLY CHILDHOOD EDUCATION I**

Length/Credits: 3 period block; 3 credits



Offered: 2 semester program

Open to: Grades 11, 12

Prerequisite: Algebra 1 and English 10; Child Development & Advanced Child Development (preferred)

Dual Credit: Ivy Tech Community College – 9 credits

- Learn stages of a child's physical, emotional, social, and cognitive development, and skills in instruction and observation
- Develop skills and techniques for providing appropriate environments and care for young children
- Participate at Giant Preschool Learning Center (ages 3, 4, and 5) and Chapelwood Elementary school and possible Early Learning Academy: observing, teaching, and working one-on-one with students
- Students must complete: physical, TB test and documentation, and an Indiana State Police Criminal Background Check
- Complete training in: First Aid, CPR, and Universal Precautions

Ivy Tech Community College credits upon successful completion of coursework with a grade of A or B.

Identified \*courses must pass Accuplacer testing:

*\*ECED 100 Intro to Early Childhood Ed 3 credits*

*\*ECED 101 Health, Safety & Nutrition 3 credits*

*\*ECED 103 Curriculum in the Classroom 3 credits*

**EARLY CHILDHOOD EDUCATION II (WBL)**

Length/Credits: 3 period block; 3 credits

Offered: 2 semester program

Open to: Grade 12

Prerequisite: Algebra 1 and English 10, Early Childhood Education I and teacher recommendation

Dual Credit: Ivy Tech Community College – 3 credits

- Work and receive high school credit while gaining work experience for CDA (Child Development Associate) credentialing
- Students work in a licensed day care center in the community
- Teacher recommendation is required for second year enrollment and participation in the program
- Personal transportation required to jobsite



- Study fire protection systems, fire prevention and safety education, building construction and floor plans, fire, safety and construction codes
- Prepare for Firefighter I & II certifications exams
- Learn the importance of on-scene and on-the-job firefighter health, safety and fitness
- Uniform required: shirts, safety glasses, gloves; approximately \$130
- ISHAA physical is required

Ivy Tech credits may be earned for the following courses:

<i>HSPS 106</i>	<i>Fire Suppression</i>	<i>3 credits</i>
<i>HSPS 122</i>	<i>Hazmat Awareness and Operations</i>	<i>3 credits</i>
<i>HSPS 165</i>	<i>Firefighter I</i>	<i>3 credits</i>
<i>HSPS 167</i>	<i>Firefighter II</i>	<i>3 credits</i>

### **GRAPHIC IMAGING TECHNOLOGY I**

### **GRAPHIC IMAGING TECHNOLOGY II**

Length/Credits: 3 period block; 3 credits

Offered: 4 semester program

Open to: Grades 11, 12

Prerequisite: Algebra 1 and English 10

Dual Credit: Vincennes University – 12 credits

- Create your own logo, then sport it, spread it, promote it! What's your brand?
- Provide hands-on training utilizing current graphic arts fundamentals
- Create computer-generated imagery and image assembly, graphic reproduction methods, and current technology available in finishing and bindery
- Experience real time production work in a graphics laboratory
- Train on state-of-the-art equipment in the most technically current printing facility available in a high school setting
- Work-based learning experience possible for second year seniors with acceptable grades, good attendance, and a recommendation; transportation required to work site
- Learn and use Adobe Photoshop, Illustrator & In-Design

Vincennes University credit may be earned for the following courses:

<i>DESN 120</i>	<i>Computer Illustration</i>	<i>3 credits</i>
<i>DESN 140</i>	<i>Computer Imaging</i>	<i>3 credits</i>
<i>ARTT 111</i>	<i>Visual Design</i>	<i>3 credits</i>
<i>DESN 155</i>	<i>Computer Page Layout</i>	<i>3 credits</i>

### **HEALTH SCIENCE EDUCATION I**

Length/Credits: 3 period block; 3 credit

Offered: 2 semester program

Open to: Grades 11, 12

Prerequisite: Algebra 1 and English 10

Dual Credit: Ivy Tech Community College – 14 credits

- Experience the high demand of the health care field

- Build foundational skills in preparation to enter the medical field: medical, dental, laboratory, or nursing
- Focus on medical terminology, anatomy/ physiology, professional development (career investigation, job search, medical hands-on tasks, leadership, etc.), and Certified Nurse Aide (CNA) training
- Complete a clinical experience at an approved health care facility under the supervision of a licensed nurse
- Required physical (\$25), TB tests and documentation (\$25), and criminal background check (\$21.00)
- Other costs possible: transportation and the state certification exam (approximately \$75.00)
- Required uniform cost is approximately \$60-\$80
- Grades, classroom performance, and attendance are reviewed before acceptance in a second year program
- CPR certification approximately \$30

NOTICE: Students in this program may be assigned to a Brownsburg or Wayne Township location based on considerations such as program enrollment numbers and the student's home high school. The Area 31 Enrollment Committee makes enrollment decisions and placement decisions are made by Area 31 Career Center administration.

Ivy Tech Community College credits may be earned in the following courses if the student completes the course with a grade of A or B. Identified \* courses must pass Accuplacer testing:

<i>HLHS 100 Intro to Health Careers</i>	<i>3 credits</i>
<i>*HLHS 101 Medical Terminology</i>	<i>3 credits</i>
<i>HLHS 107 CNA Preparation</i>	<i>5 credits</i>
<i>HLHS 102 Essentials of Anatomy and Physiology</i>	<i>3 credits</i>

**HEALTH SCIENCE EDUCATION II  
(CNA WBL)**

Length/Credits: 3 period block; 3 credit

Offered: 2 semester program

Open to: Grades 12

Prerequisite: Teacher recommendation and State CNA Certification  
CPR Certification

- On the job training; work in a health-related environment
- Completion of the CNA certification will increase employment possibilities
- Students must furnish their own transportation to job sites

**HEATING AND AIR - HVAC I  
HEATING AND AIR - HVAC II**

Length/Credits: 3 period block; 3 credits

Offered: 4 semester program

Open to: Grades 11, 12

Prerequisite: Algebra 1 and English 10

Dual Credit: Ivy Tech Community College – 9 credits

- Prepare and explore careers in the field of Heating and Air

- Study tools, safety, electrical circuits, proper handling of equipment, temperature control, installation of equipment, sheet metal layout and design, pipefitting, and work attitudes
- Work based learning experience possible for second year seniors with recommendation and transportation to job site
- Opportunity to earn OSHA certification and EPA certifications

Ivy Tech Community College credits may be earned for the following course:

<i>HVAC 101</i>	<i>Heating Fundamentals</i>	<i>3 credits</i>
<i>HVAC 103</i>	<i>Refrigeration I</i>	<i>3 credits</i>
<i>HVAC 100</i>	<i>Intro to HVAC Tech</i>	<i>3 credits</i>

**HORTICULTURE SCIENCE I**  
**HORTICULTURE SCIENCE II**

Length/Credits: 3 period block; 3 credits

Offered: 4 semester program

Open to: Grades 11, 12

Prerequisite: Algebra 1 and English 10

Dual Credit: Ivy Tech Community College – 15 credits

- Study basic horticulture & landscape skills and career opportunities
- Understand common horticultural and agricultural diseases and pests, and the management of each
- Identify common horticultural plants and understand best uses
- Perform plant and vegetable production in greenhouse setting
- Understand the size and productivity of farms and ranches in the US and around the world
- Understand US production systems for major grain crops, including Crop Rotation Systems, Tillage Systems, Variety Selection, and Harvest and grain storage technology
- Have students recognize the role of producers, input suppliers, food marketing organizations, and consumers in the U.S. Agricultural economy
- Help students understand and develop the qualities and characteristics employers in agribusiness expect in prospective employees

Ivy Tech credits may be earned for the following courses:

Year 1

<i>AGRI 100</i>	<i>Introduction to Agriculture</i>	<i>3 credits</i>
<i>AGRI 116</i>	<i>Survey of Horticulture</i>	<i>3 credits</i>
<i>AGR 117</i>	<i>Soil Science</i>	<i>3 credits</i>

Year 2

<i>AGRI 175</i>	<i>Introduction to Greenhouse Mgmt</i>	<i>3 credits</i>
<i>AGRI 129</i>	<i>Alternative Growing Methods</i>	<i>3 credits</i>

**MEDICAL ASSISTING**

Length/Credits: 3 period block; 3 credits

Offered: 2 semester program

Open to: Grade 12

Prerequisite: Algebra 1 and English 10

Dual Credit: Ivy Tech Community College 15.5 credits

- Learn duties and responsibilities of administrative and clinical medical assistants
- Learn to assist in minor surgical procedures, record vital signs, perform venipuncture, administer EKGs and injections, CPR Training
- Understand anatomy and physiology: all body systems and organization
- Study exam room procedures, aseptic practices, medical spelling and terminology, and law and ethics
- Learn to implement basic accounting procedures, file insurance claims, bill and schedule patients, prepare medical charts, reports, keyboarding and dictation and correspondence
- After graduation students who complete the program with a 70% or above will be eligible to take the CCMA certification
- Requirements: approved uniform, shoes, TB and Hepatitis B health certificates

NOTICE: Students in this program may be assigned to a Brownsburg or Wayne Township location based on considerations such as program enrollment numbers and the student's home high school. The Area 31 Enrollment Committee makes enrollment decisions and placement decisions are made by Area 31 Career Center administration.

Ivy Tech credits may be earned for the following courses:

Fall

HLHS 100 Intro to Health Careers 3 credits

HLHS 104 CPR/Basic Life Support .5 credit

Spring

HLHS 101 Medical Terminology 3 credits

HLHS 102 Essentials of Anatomy and Physiology 3 credits

MEAS 225 CCMA Development Prep 6 credits

**NETWORKING & CYBERSECURITY I**

**NETWORKING & CYBERSECURITY II**

Length/Credits: 3 period block; 3 credits

Offered: 4 semester program

Open to: Grades 11, 12

Prerequisite: Algebra 1 and English 10

Dual Credit: Vincennes University – 36 cr



Early College Program -  
Students in this program work toward a Vincennes  
Associate Degree

- Learn the basics of cybersecurity through labs and activities
- Perform some of the routine tasks of a cybercrime and computer forensics investigator
- Learn how to ethically hack computer systems
- Perform activities and labs that enable you to become a Windows 10 technician
- Learn how to build a virtual environment and keep them safe
- Engage in activities that can help you become a pro in data security
- Through labs and hands on learning how to build your own CISCO Network
- Opportunity to earn CISCO certification, COMP TIA certification, and A+ certification

NOTICE: Students in this program's first year may be assigned to a Brownsburg or Wayne Township location based on considerations such as program enrollment numbers and the student's home high

school. The Area 31 Enrollment Committee makes enrollment decisions and placement decisions are made by Area 31 Career Center administration.

Vincennes University credits may be earned for the following courses and may include at \$25 per credit hour:

Fall Year 1

CNET 151	Information and Data Security I	3 credits
CNET 155	Basic Cyber Crime and Computer Forensics	3 credits
CNET 146	Intro to Network Operations and Security	3 credits

Spring Year 1

COMP 146	Computer Configuration and Mgmt I	3 credits
CNET 246	Fundamentals in Networking Ops	3 credits
CNET 251	Information and Data Security II	3 credits
CNET 255	Adv Research in Cyber Crime and Forensics	3 credits

Fall Year 2

CNET 237	Operating Systems II	3 credits
COMP 177	Intro Programming Logic	3 credits
CNET 236	Operating Systems I	3 credits

Spring Year 2

CNET 227	Cybersecurity Operations	3 credits
COMP 232	Business Driven Communications and Net	3 credits

**PHARMACY TECH I**

Length/Credits: 3 period block; 3 credits

Offered: 2 semester program

Open to: Grade 11, 12

Prerequisite: Algebra 1 and English 10; GI

Dual Credit: Vincennes University – 22 credits

Note: Students must provide a background check in order to apply for Indiana Technician in Training License; Accuplacer testing required for acceptance (Reading: 250+, Writing: 250+, Quantitative Reasoning: 245+)



Early College Program -

Students in this program work toward a Vincennes Associate Degree

- Learn how to assist licensed pharmacists and provide medication and other healthcare products to patients
- Perform routine duties such as counting tablets, labeling bottles, updating patient information and processing insurance claims
- Learn about patient confidentiality and ethics governing pharmacy practice; policies and procedures related to a pharmacy tech position; purchasing, inventory control, and record keeping involved in drug orders
- Conduct labs including storage, packaging, and labeling requirements of drugs, prescriptions, and drug orders
- Apply arithmetic calculations required for dosage determinations
- Job shadow and include other work-based learning activities
- All students will need to obtain a drug screening and background check

Students may earn Vincennes University credits at \$25 per credit hour for the following courses with required grade. Identified \*courses must pass Accuplacer testing: Reading: 250+, Writing: 250+, Quantitative Reasoning: 245+)

Fall Semester

<i>*HIMT 110</i>	<i>Medical Term</i>	3 credits
<i>PHRM 105</i>	<i>Pharmacology I</i>	3 credits
<i>PHRM 110</i>	<i>Dispensing Lab I</i>	2 credits
<i>PHRM 220</i>	<i>Pharmacy Calculations</i>	3 credits

Spring Semester

<i>PHRM 206</i>	<i>Pharmacology II</i>	3 credits
<i>PHRM 211</i>	<i>Dispensing Lab II</i>	2 credits
<i>PHRM 115</i>	<i>Pharmacy Law for Technicians</i>	3 credits
<i>PHRM 200</i>	<i>Pharmacy Mgmt</i>	3 credits

**PHARMACY TECH II  
(WBL)**

Length/Credits: 3 period block; 3 credits

Offered: 2 semester program

Open to: Grade 12

Prerequisite: Pharmacy Tech I

Dual Credit: Vincennes University – 5 credits



Early College Program -  
Students in this program work toward a Vincennes  
Associate Degree

- On the job training; work in a Pharmacy environment
- Students must furnish their own transportation to job sites

Students may earn Vincennes University credits at \$25 per credit hour for the following courses with required grade.

<i>PHRM 225</i>	<i>Practicum</i>	5 credits
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**PRECISION MACHINING I  
PRECISION MACHINING II**

Length/Credits: 3 period block; 3 credits

Offered: 4 semester program

Open to: Grades 11, 12

Prerequisite: Algebra 1 and English 10

Dual Credit: Vincennes University – 21 credits



Early College Program -  
Students in this program work toward a Vincennes  
Associate Degree

- Develop skills to become employed immediately out of school
- Prepare for employment within the machine tool technology industry
- Study measurement, layout and inspection; machine tool processes and operations; metallurgy, welding, shop math, and reading blueprints
- Learn operation of band saw, drill press, lathe, milling machine and surface grinder
- College Credits transferable into Vincennes University's Machine Trades Technology programs
- Opportunity to obtain APICS Certificate: Logistics; APICS Certificate: Operations; MSSC Certificate: Certified Logistics Associate

Vincennes University credits may be earned for the following courses:

1<sup>st</sup> Year

<i>PMTD 110</i>	<i>Manufacturing Processes</i>	<i>2 credits</i>
<i>PMTD 110L</i>	<i>Manufacturing Processes Lab</i>	<i>1 credit</i>
<i>PMTD 120</i>	<i>General Machines</i>	<i>6 credits</i>
<i>PMTD 105</i>	<i>Metallurgy &amp; Industrial Blueprint</i>	<i>2 credits</i>

2nd Year

<i>PMTD 116</i>	<i>Introduction to CNC Programming</i>	<i>2 credits</i>
<i>PMTD 111</i>	<i>Advanced Machine Tools I</i>	<i>3 credits</i>
<i>PMTD 115</i>	<i>CNC Set Up and Operation</i>	<i>2 credits</i>
<i>PMTD 112</i>	<i>Advanced Machine Tools II</i>	<i>3 credits</i>

**RADIO BROADCASTING I**

**RADIO BROADCASTING II**

Length/Credits: 1, 2 or 3 periods; up to 3 credits  
Offered: 4 semester program  
Open to: Grades 11, 12  
Prerequisite: Algebra 1 and English 10  
Dual Credit: Vincennes University – 6 credits

- You could be on the air, 90.9, "First on your dial for variety,"
- Learn firsthand on WBDG, a student run 400 Watt FCC-licensed FM radio station
- Learn basic operation of a radio station, radio programming, voice and diction, organization, time management, and teamwork
- Specialty areas include: sports announcing, disc jockeying, voice-over work, news casting, news reporting, broadcast writing, non-commercial fundraising, and audio production
- Complete real-world projects and learn by doing, by correcting mistakes, and by improving on a daily basis
- May require before, during, and after school assignments as a part of the course curriculum

Vincennes University credit may be earned for the following courses:

Year 1

<i>BCST 102</i>	<i>Intro Audio/Visual Production</i>	<i>3 credits</i>
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Year 2

<i>BCST 120</i>	<i>Audio Production I</i>	<i>3 credits</i>
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**SUPPLY CHAIN MANAGEMENT**

Length/Credits: 3 periods – 3 credits

Offered: 2 semesters

Open to: Grades 12

Prerequisite: Algebra 1 and English 10

Dual Credit: Ivy Tech – 15 Credits

Certifications: MSSC Certified Logistics Technician & MSSC Certified Logistics Associate

NOTE: Location of class at the "MADE" Plainfield facility, students will meet on

Wednesday afternoons, other days will be on-line.

- Explore basic concepts of supply chain management, customer service, transportation, purchasing, inventory, and warehouse management.
- Study the concepts of Lean disciplines relating to the ability of an enterprise to develop a work environment that promotes continuous improvement, eliminates waste, reduces operating cost, improves quality, and achieves measurable improvement in customer satisfaction.
- Learn strategic concepts such as planning and design, customer service, transportation, purchasing, forecasting, inventory and warehouse management.
- Focus on the logistics sector of business by examining the structure and importance of the commercial transportation industry.

Ivy Tech Community College credits may be earned for the following course with required grade

Fall

LOGM 127	Intro to Logistics	3 credits
LOGM 229	Transportation Systems	3 credits
LOGM 280	Logistic Coop-Intern/Externship	3 credits

Spring

LOGM 201	Logistics Quality & Lean Mfg	3 credits
LOGM 227	Supply Chain Mgmt	3 credits

**TELEVISION BROADCASTING I**

**TELEVISION BROADCASTING II**

Length/Credits: 2 or 3 periods; up to 3 credits

Offered: 4 semester program

Open to: Grades 11, 12

Prerequisite: Algebra 1 and English 10

Dual Credit: Vincennes University – 6 credits

- Be a star on WBDTV or work behind the scenes; lights, cameras, action!
- Learn television camera operations, audio, lighting, writing, and editing
- “Hands-on” approach to learning about studio production: anchoring, directing, producing, studio cameras, audio, and studio lighting
- Produce programming that will be aired on closed-circuit television at Ben Davis High School

Vincennes University credits may be earned for the following courses *with required grade and*

*Accuplacer scores:*

Year 1

BCST 102	Intro to Audio/Visual Production	3 credits
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Year 2

BCST 140	Video Production I	3 credits
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**TRACTOR/TRAILER OPERATION**

Length/Credits: 3 period block, 3 credits

Offered: 1 semester program (Spring)

Open to: Grades 12

Prerequisite: Algebra 1 and English 10  
Dual Credit: Vincennes University – 18 credits; TTD 9130 Certificate of Program Completion (C.P.C.)  
NOTE: Students must provide their own transportation to Vincennes University – CDL (ESEC training center), 700 N. High School Rd Suite 205, Indianapolis, IN 46214

Offered Semester 2 only

Requirements:

- must be 18 years old by March 1
- Must have held a valid Indiana Operator’s License for at least 1 year

Course Description:

- Provided by Vincennes University
- Participate in classroom instruction - Monday through Friday from either 7:30-10:00 am., or 12:30-3:00 p.m. (First 8 weeks of the semester)
- Remaining weeks focus on hands-on, behind-the-wheel, road driving experience and backing skills and vehicle inspection
- Must pass a DOT physical exam and drug screen; to be administered prior to hands-on training

Approximate expenses for student include:

- \$17 CDL Learners Permit (CLP): payable to the IN BMV
- \$36 Commercial Driver’s License, payable to the IN BMV
- \$4 Motor Vehicle Record
- \$175 for additional test attempts, if needed

Upon passing the IN State BMV exam, students will be qualified to operate Class A commercial vehicles on Indiana roads.

Vincennes University credits may be earned in the following courses upon successful completion of the program with a grade of 80% or higher:

TTDT 100	<i>Basic Commercial Operations</i>	<i>3 credits</i>
TTDT 125	<i>Preventative Maintenance</i>	<i>5 credits</i>
TTDT 150	<i>Basic Control Skills</i>	<i>5 credits</i>
TTDT 175	<i>Road Driving</i>	<i>5 credits</i>

### **WELDING TECHNOLOGY I**

Length/Credits: 3 periods – 3 credits

Offered: 2 semester program

Open to: Grades 11, 12

Prerequisite: Algebra 1 and English 10

Dual Credit: Vincennes University – 9 credits

- Become proficient in welding processes including: SMAW (stick), GMAW (MIG), and GTAW (TIG)
- Study industry standards in safety, blueprint reading, fabrication techniques and welding procedures
- Earn American Welding Society (AWS) SENSE: Entry Level Welder certification upon completing the course and passing certification test

- Earn S/P2 (Safety & Pollution) certification

*WELD 100 Welding Fundamentals*

*3 credits*

*WELD 108 Shielded Metal Arc Welding I*

*3 credits*

*WELD 207 Gas Metal Arc (MIG) Welding*

*3 credits*