

**South Bend Community School Corporation**

**Course Description Guide**

**2023-2024**



# **SOUTH BEND COMMUNITY SCHOOL CORPORATION**

**C. Todd Cummings, Ph.D.**

**Superintendent**

*Your preparation for college, the workplace, and the world begins here in South Bend Community School Corporation (SBCSC) schools. During your years in high school, you will have total access to a wide variety of engaging courses and programs, all of which will allow you to begin determining your strengths and aspirations. Through our Advanced Placement (AP) courses, and programs such as Career and Technical Education, Engineering and Technology, Fine Arts, International Baccalaureate, or Health Careers Medical Magnet, you will begin your journey toward becoming a well-rounded citizen ready for your secondary education and the workforce.*

*This course guide contains the information you need to select your high school courses. Along with the assistance of your professional school counselors, teachers, and family, this useful guide will help you navigate your high school journey.*

*Carefully review the course requirements necessary to complete your four-year plan of study as you plan your Core 40, Academic Honors, Technical Honors, International Baccalaureate diploma, AP Capstone Diploma, and / or a Graduation Pathway.*

*I hope you enjoy your high school experience. I encourage you to challenge yourself, make new friends, and consider all your future holds. I am happy for the opportunities that await you. We know you have a choice and we are thrilled you have chosen South Bend Schools.*

*Sincerely,*

*C. Todd Cummings, Ph.D.*

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Washington High School, South Bend Virtual School

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## **HOW TO USE THIS BOOK**

In this guide you will find:

- a list of all high school courses and descriptions
- a list of graduation and diploma requirements
- information about magnet programs and college and career pathways

**First**, review the diploma and graduation requirements. This will help you get the big picture for what you will need in the coming years. Consider the college and career pathways available as well as what your goals might be after graduation.

**Second**, use pages 10-12 to map out a plan of study and list what courses you will take. You will need a minimum of 40 credits to graduate. These credits are earned each semester for classes you successfully complete with a passing grade. Taking required classes in sequence and paying attention to prerequisites will help you avoid scheduling problems later on.

**Third**, start selecting specific courses. Read about the course length and content. Find out if you meet the requirements (have completed the prerequisites) to take the course. Consider which level of each course might be right for you.

**Finally**, you are not alone when making scheduling decisions. School counselors, teachers, career guidance specialists, and family will guide you in this process. Be sure to ask questions and help when unsure.

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# **HIGH SCHOOL DIPLOMA REQUIREMENTS**

## **Indiana General High School Diploma / Pathway**

The completion of Core 40 is an Indiana graduation requirement. To graduate with less than Core 40, the student, parent/guardian, and school officials must complete the opt-out process form.

## **HOW TO CHOOSE YOUR COURSES**

Study this book carefully when you begin to choose your classes for the upcoming school year. Develop a plan and narrow your selections and course levels. Use the following descriptions to guide your decisions. The goal is to choose a course of study in which you will be both challenged and successful.

### **AP, Advanced, or IB**

- Reads and comprehends material two or more years above grade level
- Consistently earns grade “A” in subject area
- Scores at or above 95<sup>th</sup> percentile on standardized tests in appropriate area
- Reads avidly in the subject area and vigorously pursues assignments
- Demonstrates the capability and willingness to devote significant time to subject
- Demonstrates style, creativity, and original thinking

### **Honors**

- Reads and comprehends material one or more years above grade level
- Consistently earns grade “A” or “B” in subject area and/or related subject areas
- Scores at or above 80<sup>th</sup> percentile on standardized tests in appropriate area
- Reads in the subject area and pursues assignments with enthusiasm
- Demonstrates the capability and willingness to devote extra time to subject
- Demonstrates precision, enthusiasm, and flexible thinking in assignments

### **Regular**

- Reads and comprehends material at or near grade level
- Consistently earns satisfactory grades in subject area and/or related subject areas
- Attends class regularly and consistently completes assigned work
- Follows directions and completes assignments in a thoughtful manner
- Reads in subject area as assigned
- Works at a systematic and steady pace

### **Applied**

- Taken for a unit of study instead of a credit
- Should be determined through a CC committee if student requires a unit
- Consistently earns a Pass/Fail
- Pass/Fail is determined by set criteria from the committee meeting
- Attends class regularly and consistently
- Follows directions and participates in the prescribed curriculum

## **SCHEDULE CHANGE GUIDELINES**

A student will have the first five days of each semester to complete a form requesting a schedule change for the reasons listed below. A professional school counselor will make the change, if appropriate, within the first 10 days of a new semester.

Schedule changes will be made only for the following reasons:

- A need to balance classes or correct a scheduling error
- Medical reasons with proper documentation
- Change of course level, based on teacher recommendation: Regular > Honors > Advanced
- Failure of required course or required prerequisite
- Completion of course(s) in summer school

Occasionally, there may be individual situations that arise which will be reviewed by a school counselor to determine whether a schedule change is necessary. These situations will be considered by the student's teacher, parent/guardian, and school counselor. A recommendation will be made to the principal who will make the final decision.

## **MAGNET PROGRAM DESCRIPTIONS**

### **Adams High School**

#### ***International Baccalaureate***

The International Baccalaureate (IB) Diploma Programme (DP) is an international pre-university program of study, focusing on global issues that cut across boundaries and emphasizing our worldwide interconnectedness through the in-depth, project- and discussion-based study of perspectives in literature, language, culture, history, politics, sciences, math, and the arts. Our goal is to foster an appreciation and respect for others and an understanding that, despite differing worldviews, all individuals and cultures have value. We are an authorized International Baccalaureate Diploma Programme school. The DP in grades 11-12 is a rigorous course of study that will provide students with the intellectual, social, and critical perspectives necessary to succeed at colleges and universities, both in the United States and abroad. Our magnet program in grades 9-10 emphasizes critical thinking skills, intercultural understanding, and exposure to a variety of points of view.

### **Clay High School**

#### ***Visual and Performing Arts***

Clay's Visual and Performing Arts program advances the school's ability to provide a world of outstanding opportunities, training, and experiences for talented, committed students who have a serious interest in the arts. Our arts program works in tandem with our academic program and promotes stronger math skills and enhanced reading ability. The visual and performing arts encourage personal growth, foster social tolerance, and motivate students to be more inventive and curious in their pursuits. From Bach to rock, ballet to hip-hop, drawing to multimedia graphic design, and Shakespeare to Tennessee Williams, Clay offers students a comprehensive, quality program in the fine arts.



### ***AP Capstone***

The AP Capstone program builds the skills of criteria inquiry essential for success in college and in life. This interdisciplinary, college-level program complements and enhances discipline-specific AP courses, challenging students to: integrate, synthesize, and make cross-curricular connections; plan and conduct a study or investigation; and propose solutions to real-world problems. Students may earn either the AP Capstone Diploma™ or the AP Seminar and Research Certificate™.

### **Riley High School**

#### ***Computer Science and Engineering***

The Engineering and Technology program is nationally certified through Project Lead the Way (PLTW). PLTW is the leading provider of rigorous and innovative Science, Technology, Engineering, and Mathematics (STEM) curricular programs in the United States. Riley's Computer Science and Engineering magnet allows students to earn dual college credits in seven of the 15 magnet classes. Students in the Riley magnet programs create, design, build, discover, collaborate with peers and engineers, and solve problems while applying what they learn in math and science classes. Students are challenged by focused, project based, standards and industry-driven courses that will prepare them for any future endeavor.

### **Washington High School**

#### ***Medical and Allied Health Sciences***

The Medical and Allied Health Sciences program at Washington High School offers students the opportunity to participate in one of the most dynamic growth industries in the United States. Students receive broad-based preparation for careers in healthcare and scientific research. The program emphasizes scientific inquiry, critical thinking, and effective communication skills.

Students have a choice of two pathways within this program. One choice is the Medical Magnet Early College program which is partnered with Ivy Tech Community College. Through hands-on training and a rigorous course of study, this dual credit program leads to a health care specialist technical certificate. Students completing the program will sit for the National Health Science Assessment (NCHSE) exam and industry certification exams in EKG and patient care.

# INDIANA CORE 40



Effective beginning with students who enter high school in 2012-13 school year (class of 2016).

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

Schools may have additional local graduation requirements that apply to all students (not required for students with an IEP).

\* Specifies the number of electives required by the state. High school schedules provide time for many more electives during the high school years. All students are strongly encouraged to complete a College and Career Pathway (selecting electives in a deliberate manner) to take full advantage of career and college exploration and preparation opportunities.

\*\*SAT scores updated September, 2017

\*\*\*WorkKeys assessment titles updated, 2018

## **CORE40** with Academic Honors

*(minimum 47 credits)*

For the **Core 40 with Academic Honors** designation, students must:

- 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 “B” or better.
- Complete one of the following:
  - A. Earn 4 credits in 2 or more AP courses and take corresponding AP exams
  - B. Earn 6 verifiable transcribed college credits in dual credit courses from the approved dual credit list.
  - C. Earn two of the following:
    1. A minimum of 3 verifiable transcribed college credits from the approved dual credit list,
    2. 2 credits in AP courses and corresponding AP exams,
    3. 2 credits in IB standard level courses and corresponding IB exams.
  - D. Earn a composite score of 1250 or higher on the SAT and a minimum of 560 on math and 590 on the evidence based reading and writing section.\*\*
  - E. Earn an ACT composite score of 26 or higher and complete written section
  - F. Earn 4 credits in IB courses and take corresponding IB exams.

## **CORE40** with Technical Honors

*(minimum 47 credits)*

For the **Core 40 with Technical Honors** designation, students must:

- 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. Pathway designated industry-based 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 “B” or better.
- Complete one of the following,
  - A. Any one of the options (A - F) of the Core 40 with Academic Honors
  - B. Earn the following minimum scores on WorkKeys: Workplace Documents, Level 6; Applied Math, Level 6; and Graphic Literacy, Level 5.\*\*\*
  - C. Earn the following minimum score(s) on Accuplacer: Writing 80, Reading 90, Math 75.
  - D. Earn the following minimum score(s) on Compass: Algebra 66 , Writing 70, Reading 80.

## Indiana Certificate of Completion

### Course of Study

Effective with the students who enter high school in 2018-19 school year (Class of 2022)

The Course of Study for the Certificate of Completion is a framework for aligning curriculum to grade level standards while meeting the individual goals and transition needs stated in the student's Individual Education Plan (IEP).

Minimum total 40 credits/applied units: It is expected that these requirements are met through enrollment in a combination of general education courses for credit, modified general education courses in which non-credit applied units are earned and special education courses in which non-credit applied units are earned.	
English/Language Arts	<b>8 credits/applied units</b>
	Including a balance of literature, composition, vocabulary, speech/communication
Mathematics	<b>4 credits/applied units</b>
	Including a balance of number sense, expressions, computation, data analysis, statistics, probability, equations and inequalities and personal finance. Student must take a math or applied math course each year in high school.
Science	<b>4 credits/applied units</b>
	Including a balance of physical, earth/nature, life, engineering and technology
Social Studies	<b>4 credits/applied units</b>
	Including a balance of history, civics and government, geography, economics
Physical Education	<b>2 credits/applied units</b>
Health & Wellness	<b>1 credit/applied unit</b>
Employability	<b>10 credits/applied units</b>
	Job exploration, work- or project-based learning experiences, employability skills (mindsets, self-management, learning strategies, social, workplace), portfolio creation, introduction to post-secondary options
	Investigation into opportunities for enrollment in postsecondary programs, work place readiness training to develop employability and independent living skills and instruction in self-advocacy
Electives	<b>7 credits/applied units</b>
<b>Certificate of Completion Transition Portfolio</b>	
Students earning a certificate of completion fulfill <u>at least one</u> of the following (aligned with transition goals):	
1. <b>Career Credential:</b> Complete an industry-recognized certification, one-year certificate or state-approved alternative	
2. <b>Career Experience:</b> Complete project- or work-based learning experience or part time employment	
3. <b>Work Ethic Certificate:</b> Earn a Work Ethic Certificate (criteria to be locally determined)	
4. <b>Other Work Related Activities:</b> As determined by the case conference committee	

#### Assumptions:

- 1) High Expectations for all students is a shared responsibility.
- 2) General Education courses are accessed whenever appropriate to fulfill the Certificate of Completion course of study.
- 3) Students' IEP goals are aligned with grade level standards/content connectors that drive curriculum and instruction.
- 4) Communication skills, reading skills, and problem solving skills are integrated into all courses.
- 5) Courses can be repeated with new goals if appropriate; more than four years may be needed for completion.
- 6) All courses are driven by the Transition IEP and individual goals of each student.

## INDIANA GRADUATION PATHWAYS

The purpose for this Panel is to establish graduation pathway recommendations for the State Board of Education that create an educated and talented workforce able not just to meet the needs of business and higher education, but able to succeed in all postsecondary endeavors. To account for the rapidly changing, global economy, every K-12 student needs to be given the tools to succeed in some form of quality postsecondary education and training, including an industry recognized certificate program, an associate's degree program, or a bachelor's degree program.

These recommendations seek to ensure that every Hoosier student graduates from high school with 1) a broad **awareness** of and **engagement** with individual career interests and associated career options, 2) a strong foundation of **academic** and **technical skills**, and 3) **demonstrable employability skills** that lead directly to meaningful opportunities for postsecondary education, training, and gainful employment.

Students in the graduating class of 2023 must satisfy all three of the following Graduation Pathway Requirements by completing one of the associated Pathway Options:

Graduation Requirements	Graduation Pathway Options
1) <b>High School Diploma</b>	Meet the statutorily defined diploma credit and curricular requirements.
2) <b>Learn and Demonstrate Employability Skills</b> (Students must complete at least one of the following)	Learn employability skills standards through locally developed programs. Employability skills are demonstrated by one the following: <ul style="list-style-type: none"> <li>● Project-Based Learning Experience; OR</li> <li>● Service-Based Learning Experience; OR</li> <li>● Work-Based Learning Experience.</li> </ul>
3) <b>Postsecondary-Ready Competencies</b> (Students must complete <u>at least one</u> of the following.)	<ul style="list-style-type: none"> <li>● <b>Honors Diploma:</b> Fulfill all requirements of either the Academic or Technical Honors diploma; OR</li> <li>● <b>ACT:</b> College-ready benchmarks; OR</li> <li>● <b>SAT:</b> College-ready benchmarks; OR</li> <li>● <b>ASVAB:</b> Earn at least a minimum AFQT score to qualify for placement into one of the branches of the US military; OR</li> <li>● <b>State- and Industry-recognized Credential or Certification;</b> OR</li> <li>● <b>Federally-recognized Apprenticeship;</b> OR</li> <li>● <b>Career-Technical Education Concentrator:</b> 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; OR</li> <li>● <b>AP/IB/Dual Credit/Cambridge International courses or CLEP Exams:</b> Must earn a C average or higher in at least three courses; OR</li> <li>● <b>Locally created pathway</b> that meets the framework from and earns the approval of the State Board of Education.</li> </ul>

## ADVANCED COURSES: NON-CTE (CTE) FOR COLLEGE CREDIT

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

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

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

In cooperation with the Indiana Commission for Higher Education (CHE), IDOE offers a Dual Credit FAQ by accessing [this link](https://www.in.gov/doe/students/dual-credit/) (https://www.in.gov/doe/students/dual-credit/). Dual credit courses provide opportunities for qualified students to earn college credit from regionally accredited institutions while attending high school.

### ADVANCED CAREER & TECHNICAL EDUCATION, COLLEGE CREDIT: BUSINESS, MARKETING, AND ENTREPRENEURSHIP

**9110DC**

IDOE #6142

*ADV BUS CC BME Advanced Career and Technical Education, College Credit is a course title covering any CTE advanced course offered for credit by an accredited post-secondary institution through an adjunct agreement with a secondary school. The intent of this course is to allow students to earn college credit for courses with content that goes beyond that currently approved for high school credit. This course may be used for any dual enrollment course, including a joint program of study involving a postsecondary partnership.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: CTE courses that would help prepare the student for success in this area.
- Credits: 1 semester course, up to 3 credits per semester. May be offered for successive semesters up to 12 credits.
- **Counts as a directed elective or elective for all diplomas**
- **A student should earn at least 3 postsecondary credits for each high school credit. Schools must have an approved Nonstandard Course Waiver on file to be eligible for CTE Funding.**

### ADVANCED ENGLISH/LANGUAGE ARTS, COLLEGE CREDIT

**9190DC**

IDOE #1124

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

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

- Recommended Prerequisites: English 9 and English 10 or other literature, language, composition, and speech courses or teacher recommendation
- Credits: 1 semester course, 1 credit per semester. May be offered for successive semesters
- **Fulfills an English/Language Arts requirement for all diplomas**
- Courses that use this title are most often those taught through the post-secondary campus, taught either online or in traditional settings or a combination; and/or taught by higher education faculty.
- Courses that use this title are those that do not meet specific high school standards for a corresponding high school course, as they are standards beyond what is taught in the high school.

## **ADVANCED FINE ARTS, COLLEGE CREDIT**

**9120DC**

*IDOE #4260*

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

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

## **ADVANCED MATHEMATICS, COLLEGE CREDIT**

**9180DC**

*IDOE #2544*

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

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

## **ADVANCED SCIENCE, COLLEGE CREDIT (L)**

**9130DC**

*IDOE #3090*

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

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

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

## **ADVANCED SOCIAL SCIENCES, COLLEGE CREDIT**

**9140DC**

*IDOE #1574*

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

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

## **ADVANCED WORLD LANGUAGE, COLLEGE CREDIT**

**9170DC**

*IDOE #2152*

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

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

## **ADVANCED COMPOSITION**

**9150DC**

*IDOE #1098*

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

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: English 9, English 10, Composition, or teacher recommendation
- Credits: 1 or 2 semester course, 1 credit per semester



- **Fulfills an English/Language Arts requirement for all diploma**

## **CALCULUS**

**91612DC (9161DC-9162DC)**

*IDOE #2527*

*CALC Calculus expands a student's knowledge of topics like functions, graphs, limits, derivatives, and integrals. Additionally, students will review algebra and functions, modeling, trigonometry, etc. Calculus is made up of five strands: Limits and Continuity; Differentiation; Applications of Derivatives; Integrals; and Applications of Integrals. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.*

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Pre-Calculus: Algebra and Pre-Calculus: Trigonometry
- 2 semester course, 1 credit per semester
- **Fulfills a Mathematics course requirement for all diplomas**
- **This course is NOT an AP course. This code should be used for dual credit and Ivy Academy only.**

## ADVANCED PLACEMENT (AP) COURSES

### Introduction of Advanced Placement Courses

Advanced Placement (AP) courses are intended to be equivalent to a similar college level course. 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. The bulleted items following each course description indicate a few AP classes that could conceivably be completed in either one semester or two. All schools wishing to label a course “AP” must submit the subject-specific AP Course Audit form and the course syllabus to the College Board for each teacher of that AP course. The AP course audit information and is available at <http://www.collegeboard.com/html/apcourseaudit/>. It is also strongly recommended that all AP teachers take advantage of professional development opportunities in their content area.

Student Selection Criteria for AP courses: The College Board suggests that all students who are willing to accept the challenge of a rigorous academic curriculum should be considered for admission to AP courses. The College Board encourages the elimination of barriers that restrict access to AP courses for students from ethnic, racial, and socioeconomic groups that have been traditionally underrepresented in the AP Program. Schools should make every effort to ensure that their AP classes reflect the diversity of their student population. The Indiana Department of Education (IDOE) further supports a school developing criteria for admission to AP courses to include, but are not limited to, potential, previous success in content area courses, teacher recommendations, and standardized test results.

A comprehensive description of all AP courses can be found on the [College Board AP Central Course Description website](#).

### AP BIOLOGY

#### 40334A (4033AP-4034AP)

IDOE #3020AP

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

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

### AP CALCULUS AB

#### 35412A (3541AP-3542AP)

IDOE #2562AP

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

- Recommended Grade: 11,12

- Required Prerequisites: Pre-Calculus: Algebra
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- **Counts as a Mathematics Course for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

## AP CALCULUS BC

**35434A (3543AP-3544AP)**

IDOE #2572AP

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

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

## AP PRECALCULUS

**2563AP-25632AP**

IDOE #2563

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

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

## AP CHEMISTRY

**44334A (4433AP-4434AP)**

IDOE #3060AP

*AP Chemistry is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The content includes: (1) structure of matter: atomic theory and structure, chemical bonding, molecular models, nuclear chemistry; (2) states of matter: gases, liquids and solids, solutions; and (3) reactions: reaction types, stoichiometry, equilibrium, kinetics and thermodynamics.*

- Recommended Grade: 12
- Required Prerequisites: none
- Recommended Prerequisites: Chemistry I, Algebra II, Pre-Calculus Algebra / Pre-Calculus Trigonometry
- Credits: 2 semester course, 1 credit per semester

- **Counts as a Science Course for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

## **AP COMPUTER SCIENCE A**

**55067A (5506AP-5507AP)**

*IDOE #4570AP*

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

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: AP Computer Science Principles or Computer Science I, Algebra II
- Credits: 2 semester course, 1 credit per semester
- **Counts as an elective for all diplomas**
- **Fulfills a science course requirement for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

## **AP COMPUTER SCIENCE PRINCIPLES**

**47290A (4729AP-4730AP)**

*IDOE #4568AP*

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

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

## **AP DRAWING**

**61412A (6141AP-6142AP)**

*IDOE #4048AP*

*AP Drawing is a course established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The AP Studio Art Program consists of three portfolio exams—2-D Design, 3-D Design, and Drawing—corresponding to the college foundation courses. Portfolios allow flexibility of coursework while guiding students to produce college-level quality, artistic investigation, and breadth of work. The Drawing portfolio addresses issues such as line quality, light and shade, rendering of form, composition, surface manipulation, the illusion of depth, and mark-making. Students' portfolios demonstrate skills and ideas developed, refined, and applied throughout the course to produce visual compositions. Students may choose to submit any or all of the portfolios. Portfolios are evaluated based on standardized scoring descriptors aligned with skills and understanding developed in college foundation courses. The portfolio will have two sections: Sustained Investigation and Selected works.*

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Advanced laboratory visual arts courses

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

## AP 2D ART & DESIGN

### 4050AP-40502AP

IDOE #4050AP

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

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Advanced laboratory 2-D visual arts courses
- Credits: 2 semester course, 1 credit per semester

● **Counts as a directed elective or elective for all diplomas**

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

## AP 3D ART & DESIGN

### 4052AP-40522AP

IDOE #4052AP

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

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Advanced laboratory 2-D visual arts courses
- Credits: 2 semester course, 1 credit per semester

● **Counts as a directed elective or elective for all diplomas**

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

## AP ENGLISH LANGUAGE AND COMPOSITION

### 11556A (1155AP-1156AP)

IDOE #1056AP

*AP English Language and Composition is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The course focuses on the development and revision of evidence-based analytic and argumentative writing and the rhetorical analysis of nonfiction texts. The course aligns to an introductory college-level rhetoric and writing curriculum, which requires students to develop evidence-based analytic and argumentative essays that proceed through several stages or drafts. Students evaluate, synthesize, and cite research to support their arguments. Throughout the course, students develop a personal style by making appropriate grammatical choices. Additionally, students read and analyze the*

*rhetoical elements and their effects in non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods. There is no prescribed sequence of study*

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

## **AP ENGLISH LITERATURE AND COMPOSITION**

**11478A (1147AP-1148AP)**

*IDOE #1058AP*

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

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

## **AP ENVIRONMENTAL SCIENCE**

**40634A (4063AP-4064AP)**

*IDOE #3012AP*

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

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

## **AP EUROPEAN HISTORY**

**5193AP**

*IDOE #1556AP*

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



- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: World History. Students should be able to read a college level textbook and write grammatically correct sentences.
- Credits: 1 to 2 semester course, 1 credit per semester
- **Counts as an elective for all diplomas**

## **AP UNITED STATES GOVERNMENT AND POLITICS**

**4961AP**

*IDOE #1560AP*

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

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

## **AP MACROECONOMICS**

**5098AP**

*IDOE #1564AP*

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

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

## **AP MICROECONOMICS**

**5097AP**

*IDOE #1566AP*

*AP Microeconomics is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. AP Microeconomics is an introductory college-level course that focuses on the principles of economics that apply to the functions of individual economic decision-makers. The course also develops students' familiarity with the operation of product and factor markets, distributions of income, market failure, and the role of government in promoting greater efficiency and equity in the*

economy. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts. Topics include: Basic Economic Concepts; Nature and Functions of Product Markets; Factor Markets; and Market Failure and the Role of Government.

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

## AP MUSIC THEORY

**81434A (8143AP-8144AP)**

IDOE #4210AP

*AP Music Theory is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The AP Music Theory course corresponds to two semesters of a typical introductory college music theory course that covers topics such as musicianship, theory, musical materials, and procedures. Through the course, students develop the ability to recognize, understand, and describe basic materials and processes of music that are heard or presented in a score. Development of aural skills is a primary objective. Performance is also part of the learning process. Students understand basic concepts and terminology by listening to and performing a wide variety of music.*

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

## AP PHYSICS 1: ALGEBRA-BASED

**46312A (4631AP-4632AP)**

IDOE #3080AP

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

- Recommended Grade: 10, 11
- Required Prerequisites: Algebra I
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- **Counts as a Science Course for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

## AP PHYSICS 2: ALGEBRA-BASED (L)

**46334A (4633AP-4634AP)**

IDOE #3081AP

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

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



- Recommended Prerequisites: AP Physics 1: Algebra-based
- Credits: 2 semester course, 1 credit per semester
- **Counts as a Science Course for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

## AP RESEARCH

**58945A (5894AP-5895AP)**

IDOE #0551AP

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

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

## AP SEMINAR

**58923A (5892AP-5893AP)**

IDOE #0552AP

*Seminar, Advanced Placement is the first year foundational interdisciplinary course that is unique to the AP Capstone diploma program. AP Seminar is a foundational course that engages students in cross curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational literary and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in research-based written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments.*

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

## AP STATISTICS

**35112A (3511AP-3512AP)**

IDOE # 2570AP

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

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Algebra II or Integrated Mathematics III

- Credits: 1 to 2 credit course, 1 credit per semester. Due to the level of rigor, it is recommended that AP Statistics be offered as a 2 semester, 2 credit course.
- **Counts as a Mathematics Course for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

## AP UNITED STATES HISTORY

### 51512A (5151AP-5152AP)

IDOE #1562AP

*AP United States History is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. AP United States History focuses on developing students' abilities to think conceptually about U.S. history from approximately 1491 to the present and apply historical thinking skills as they learn about the past. Seven themes of equal importance — identity; peopling; politics and power; work, exchange, and technology; America in the world; environment and geography; and ideas, beliefs, and culture — provide areas of historical inquiry for investigation throughout the course. These require students to reason historically about continuity and change over time and make comparisons among various historical developments in different times and places.*

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

## AP WORLD HISTORY MODERN

### 48312A (4831AP-4832AP)

IDOE #1612AP

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

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none. Students should be able to read a college level textbook and write grammatically correct, complete sentences.
- Credits: 2 semester course, 1 credit per semester
- **Fulfills the Geography History of the World/World History and Civilization graduation requirement for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas**

## INTERNATIONAL BACCALAUREATE

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

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

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

### **The Curriculum**

*IB Diploma Programme students must choose one subject from each of the five groups (1 to 5), ensuring breadth of knowledge and understanding in their best language, additional language(s) the social sciences, the experimental sciences and mathematics. Students must also choose either an arts subject from group 6, or a second subject from groups 1 to 5.*

- DP subjects can be taken at higher level or standard level.

### **BIOLOGY, STANDARD LEVEL**

**40378S (4037S-4038S)**

*IDOE #3034IB*

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

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

### **BIOLOGY, HIGHER LEVEL**

**40334H (4033H-4034H)**

*IDOE #3032IB*

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

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

## **BUSINESS MANAGEMENT, HIGHER LEVEL**

**55812H (5581H-5582H)**

IDOE #4580IB

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

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

## **CHEMISTRY, STANDARD LEVEL**

**44356S (4435S-4436S)**

IDOE #3072IB

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

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Biology I and Chemistry I
- Credits: 2 or 4 semester course, 1 credit per semester
- **Counts as an elective for all diplomas**
- **Fulfills a Chemistry I requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors**
- **QMR: Qualifies as a quantitative reasoning course**

## **ECONOMICS, HIGHER LEVEL**

**51634H (5163H-5164H)**

IDOE #1580IB

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

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

- Credits: 2 or 4 semester course, 1 credit per semester
- **Counts as an elective or directed elective for all diplomas**
- **Fulfills the Economics requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas**
- **Fulfills the Social Studies Economics requirement for the General Diploma**
- **QMR: Qualifies as a quantitative reasoning course**

## **ECONOMICS, STANDARD LEVEL**

**51656S (5165S-5166S)**

*IDOE #1582IB*

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

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

## **ENVIRONMENTAL SYSTEMS AND SOCIETIES, STANDARD LEVEL**

**43312S (4331S-4332S)**

*IDOE #3016IB*

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

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

## **FILM, HIGHER LEVEL**

**63156H (6315H-6316H)**

*IDOE #4270IB*

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



others. Students are challenged to acquire and develop critical thinking, reflective analysis, and the imaginative synthesis through practical engagement in the art, craft, and study of film.

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

## **FILM, STANDARD LEVEL**

### **63134S (6313S-6314S)**

IDOE #4272IB

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

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

## **GEOGRAPHY, STANDARD LEVEL**

### **53312S (5331S-5332S)**

IDOE #1586IB

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

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

## **HISTORY, HIGHER LEVEL**

### **51312H (5131H-5132H)**

IDOE #1590IB

*The DP history course is a world history course based on a comparative and multi-perspective approach to history. It involves the study of a variety of types of history, including political, economic, social, and cultural, and provides a balance of structure and flexibility. The course emphasizes the importance of encouraging students to think historically and to develop historical skills as well as gaining factual knowledge. It puts a premium on developing the skills of critical thinking, and on developing an understanding of multiple interpretations of history. In this way, the course involves a challenging and demanding critical exploration of the past. Teachers explicitly teach thinking*

and research skills such as comprehension, text analysis, transfer, and use of primary sources. There are six key concepts that have particular prominence throughout the DP history course: change, continuity, causation, consequence, significance, and perspectives. The range of content is from 750 CE to the 21st Century. Higher Level requires that one of four regions must be studied: Americas, Africa/Middle East, Europe, or Asia/Oceania.

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

## **LANGUAGE A: LITERATURE, HIGHER LEVEL**

**11456H (1145H-1146H)**

IDOE #1130IB

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

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

## **LANGUAGE A: LITERATURE, STANDARD LEVEL**

**11478S (1147S-1148S)**

IDOE #1132IB

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

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

## **LANGUAGE A - LITERATURE A: LITERATURE SCHOOL SUPPORTED SELF-TAUGHT 11590S (1159S-1160S)**

IDOE #2600IB

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

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

## **LANGUAGE B *ab initio*, STANDARD LEVEL**

**27456S (2745S-2746S)**

IDOE #2310IB

*The IB language *ab initio* Standard Level course is designed to provide students with the necessary skills and intercultural understanding to enable them to communicate successfully in an environment where the language studied is spoken. This process encourages the learner to go beyond the confines of the classroom, expanding an awareness of the world and fostering respect for cultural diversity. The language *ab initio* course develops students' linguistic abilities through the development of receptive, productive, and interactive skills by providing them with opportunities to respond and interact appropriately in a defined range of everyday situations.*

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

## **LANGUAGE B, HIGHER LEVEL**

**27434H (2743H-2744H)**

IDOE #2306IB

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

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

**\*IDOE has the incorrect name of “World Language B, Higher Level”**



## LANGUAGE B, STANDARD LEVEL

**27123S (2712S-2713S)**

IDOE #2308IB

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

- Recommended Grade: 11, 12
  - Required Prerequisites: none
  - Recommended Prerequisites: none
  - Credits: 2 or 4 semester course, 1 credit per semester
  - Counts as a World Language credit for all diplomas
  - Counts as an elective or directed elective for all diplomas
  - In the Classical languages: new course assessment 2023
- \*IDOE has the incorrect name of “World Language B Standard Level”**

## MATHEMATICS: ANALYSIS AND APPROACHES, HIGHER LEVEL

**33345H (3334H-3335H)**

IDOE #2590IB

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

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Recommended Prerequisites: students should have very strong Algebra II skills
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills a Mathematics course requirement for Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas
- QMR: Qualifies as a quantitative reasoning course
- New assessment 2021

## MATHEMATICS: ANALYSIS AND APPROACHES, STANDARD LEVEL

**33367S (3336S-3337S)**

IDOE #2588IB

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

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Recommended Prerequisites: students should have strong Algebra II skills
- Credits: 2 or 4 semester course, 1 credit per semester
- Counts as an elective for all diplomas
- Fulfills a Mathematics course requirement for Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas
- QMR: Qualifies as a quantitative reasoning course
- New assessment 2021

## MATHEMATICS: APPLICATIONS AND INTERPRETATIONS, HIGHER LEVEL

**33467H (3346H-3347H)**

IDOE #2594IB

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

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Recommended Prerequisites: students should have strong Algebra II skills
- Credits: 2 or 4 semester course, 1 credit per semester
- **Counts as an elective for all diplomas**
- **Fulfills a Mathematics course requirement for Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas**
- **QMR: Qualifies as a quantitative reasoning course**
- New assessment 2021
- 4 Credits maximum

## MATHEMATICS: APPLICATIONS AND INTERPRETATIONS, STANDARD LEVEL

**33489S (3348S-3349S)**

IDOE #2592IB

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

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Recommended Prerequisites: students should have strong Algebra I skills
- Credits: 2 or 4 semester course, 1 credit per semester
- **Counts as an elective for all diplomas**
- **Fulfills a Mathematics course requirement for Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas**
- **QMR: Qualifies as a quantitative reasoning course**
- New assessment 2021

## MUSIC, HIGHER LEVEL

**83534H (8353H-8354H)**

IDOE #4212IB

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

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

## MUSIC, STANDARD LEVEL

### 83512S (8351S-8352S)

IDOE #4214IB

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

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

## PHILOSOPHY, STANDARD LEVEL

### 52512S (5251S-5252S)

IDOE #1602IB

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

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

## PHILOSOPHY, HIGHER LEVEL

### 52534H (5253H-5254H)

IDOE #1600IB

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

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

## PHYSICS, HIGHER LEVEL

**46312H (4631H-4632H)**

IDOE #3096IB

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

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

## PHYSICS, STANDARD LEVEL

**46312S (4631S-4632S)**

IDOE #3098IB

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

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

## PSYCHOLOGY, HIGHER LEVEL

**55234H (5523H-5524H)**

IDOE #1604IB

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

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

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

## PSYCHOLOGY, STANDARD LEVEL

**55234S (5523S-5524S)**

IDOE #1606IB

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

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

## SOCIAL AND CULTURAL ANTHROPOLOGY, HIGHER LEVEL

**51278H (5127H-5128H)**

IDOE #1608IB

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

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

## SPORTS, EXERCISE, AND HEALTH SCIENCES, STANDARD LEVEL

**40078S (4007S-4008S)**

IDOE #3510IB

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

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

## **THEORY OF KNOWLEDGE**

### **51356I (5135I-5136I)**

IDOE #0560IB

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

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

## **VISUAL ARTS, HIGHER LEVEL**

### **60912H (6091H-6092H)**

IDOE #4090IB

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

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

## **VISUAL ARTS, STANDARD LEVEL**

### **60812S (6081S-6082S)**

IDOE #4092IB

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

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



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

## WORLD RELIGIONS, STANDARD LEVEL

48334S (4833S-4834S)

IDOE #1588IB

The IB World Religions Standard Level course is a systematic, analytical, yet empathetic study of the variety of beliefs and practices encountered in nine main religions of the world. The course seeks to promote an awareness of religious issues in the contemporary world by requiring the study of a diverse range of religions. The religions are studied in such a way that students acquire a sense of what it is like to belong to a particular religion and how that influences the way in which the followers of that religion understand the world, act in it, and relate and respond to others.

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

## CAREER AND TECHNICAL EDUCATION (CTE) DIRECTED ELECTIVES

This section includes CTE courses that are NOT in any of the Next Level Programs of Study (NLPS) Career Pathways. Please note that many of these courses will expire or phase out as we transition into NLPS.

### CTSO LEADERSHIP DEVELOPMENT IN ACTION

5237

IDOE #5237

LEAD DEV Leadership Development in Action is a project-based course in which students integrate higher order thinking, communication, leadership, and management processes to conduct Career and Technical Student Organization (CTSO) leadership projects at the local, state, or national level. Each student will create a vision statement, establish standards and goals, design and implement an action plan and timeline, reflect on accomplishments, and evaluate results. Authentic, independent application through CTSO student-directed programs or projects, internship, community-based study, or in-depth laboratory experience is required. Research and development, interdisciplinary projects, and/or collaboration with post-secondary faculty, community agencies, or organizations are appropriate approaches. Instructor must be a current chapter advisor of an Indiana-recognized CTSO. State and national membership in an Indiana recognized CTSO is required of any student enrolled in this course. Service learning experiences are highly recommended. Achievement of applicable Career and Technical Education (CTE), academic, and employability standards will be documented through a required student portfolio.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Preparing for College and Careers; sequence of courses relevant to the student's CTSO and area of concentration; or permission of instructor through an application process.
- Credits: 1 credit per semester, up to 6 semesters, 6 credits maximum
- Counts as a directed elective or elective for all diplomas
- Note: Can only be offered at schools with officially registered CTSO chapters and must be taught by the registered Advisor of that CTSO Chapter. Students MUST be members of the state and national CTSO.

### BUSINESS LAW AND ETHICS

5671

IDOE #4560

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

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

## **BUSINESS MATH**

**5673**

IDOE #4512

*BUS MATH Business Math is a course designed to prepare students for roles as entrepreneurs, producers, and business leaders by developing abilities and skills that are part of any business environment. A solid understanding of math including algebra, basic geometry, statistics, and probability provides the necessary foundation for students interested in careers in business and skilled trade areas. The content includes mathematical operations related to accounting, banking and finance, marketing, and management. Instructional strategies should include simulations, guest speakers, tours, Internet research, and business experiences.*

- Recommended Grade(s): 10, 11
- Required Prerequisites: Algebra I
- Recommended Prerequisites: none
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- **Counts as an elective or directed elective for all diplomas**
- **Fulfills a Mathematics requirement for the General Diploma or Certificate of Completion only.**
- **QMR: Qualifies as a quantitative reasoning course**

## **APPLIED BUSINESS MATH**

**5673J**

IDOE #4512

*BUS MATH Applied Business Math is a course designed to prepare students for roles as entrepreneurs, producers, and business leaders by developing abilities and skills that are part of any business environment. A solid understanding of application of money management skills, navigating industry specific technology and apps, establishing and managing budgets, and maintaining inventory for products and other necessary skills that provides the foundation for students interested in careers in business related fields and everyday life. The content includes basic mathematical operations related to accounting, banking and finance, marketing, management, and retail. Instructional strategies should include simulations, guest speakers, tours, Internet research, and business experiences.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: Unlisted in IDOE
- **Counts as an elective for the Certificate of Completion**
- **Fulfills a Mathematics requirement for the Certificate of Completion**
- **QMR: Qualifies as a quantitative reasoning course**

## **COMPUTER SCIENCE I**

**4711 or 4711DC**

IDOE #4801

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

- Recommended Grade(s): 10, 11, 12



- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Computer Science
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a science course requirement for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**
- **Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.**
- **This will become obsolete after 23-24SY.**

## **COMPUTER SCIENCE II**

**4713 or 4713DC**

*IDOE #5236*

CS II PROG Computer Science II explores and builds skills in programming and a basic understanding of the fundamentals of procedural program development using structured, modular concepts. Coursework emphasizes logical program design involving user-defined functions and standard structure elements. Discussions will include the role of data types, variables, structures, addressable memory locations, arrays and pointers, and data file access methods. An emphasis on logical program design using a modular approach, which involves task-oriented program functions.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Computer Science I
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a science course requirement for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**
- **Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.**
- **This will become obsolete after 23-24SY.**

## **COMPUTER SCIENCE III: SOFTWARE DEVELOPMENT CAPSTONE**

**4717**

*IDOE #5249*

*CS III SD Computer Science III: Software Development focuses on gaining knowledge and acquiring competencies in the processes, techniques and tools used to develop production quality software. The course framework aligns with professional standards and situates software development within the context of a software project, providing focus on requirements development and management, project scheduling, project success metrics, code design, development and review principles, testing procedures, release and revision processes, and project archival. An additional topic provides exposure to career opportunities within the software development field. The final product of this capstone experience is a working software product that adheres to industry standards.*

- Recommended Grade(s): 12
- Required Prerequisites: Computer Science I
- Recommended Prerequisites: Computer Science II
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a science course requirement for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**
- **Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.**

## **COMPUTER SCIENCE III: DATABASES**

**4715**

*IDOE #5250*

*CS III DATA Computer Science III: Databases introduces students to the basic concepts of databases including types of databases, general database environments, and the importance of data to the business world. Discussion with hands-on activities will include database design, normalization of tables, and development of tables, queries, reports, and applications. Students will be familiarized with the use of ANSI Standard Structured Query Language. Discussions will include database administration and data maintenance. Students will be introduced to data concepts such as data warehousing, data mining, and BIG Data. Students will develop a business application using database software such as Microsoft Access. Students will be required to demonstrate skills such as team building, work ethic, communications, documentation, and adaptability.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Computer Science I
- Recommended Prerequisites: Computer Science II
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a science course requirement for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**
- **Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.**

### **COMPUTER SCIENCE III: INFORMATICS**

**4719**

*IDOE #5251*

*CS III INFO Computer Science III: Informatics introduces the student to terminology, concepts, theory, and fundamental skills used to implement information systems and functions in a wide variety of applications from small businesses to large enterprise organizations. Topics include the history of and trends in computing, operating systems, security, cloud implementations and other concepts associated with applying the principles of good information management to the organization.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Computer Science I
- Recommended Prerequisites: Computer Science II
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a science course requirement for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**
- **Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.**

### **COMPUTER SCIENCE III: CYBERSECURITY CAPSTONE**

**4731**

*IDOE #5253*

*CS III CYBER Computer Science III: Cybersecurity introduces the secure software development process including designing secure applications, writing secure code designed to withstand various types of attacks, and security testing and auditing. It focuses on the security issues a developer faces, common security vulnerabilities and flaws, and security threats. The course explains security principles, strategies, coding techniques, and tools that can help make software fault tolerant and resistant to attacks. Students will write and analyze code that demonstrates specific security development techniques. Students will also learn about cryptography as an indispensable resource for implementing security in real-world applications. Students will learn foundations of cryptography using simple mathematical probability. Information theory, computational complexity, number theory, and algebraic approaches will be covered. NOTE: This course aligns with the PLTW Cybersecurity curriculum. Use of the PLTW curriculum may require additional training and membership in the PLTW network.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Computer Science I
- Recommended Prerequisites: Computer Science II
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum

- Counts as a directed elective or elective for all diplomas
- Fulfills a science course requirement for all diplomas
- QMR: Qualifies as a quantitative reasoning course
- Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.

## INTRODUCTION TO BUSINESS

5503

IDOE #4518

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

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

## INTRODUCTION TO COMPUTER SCIENCE

4723

IDOE #4803

*INTO CS allows students to explore the world of computer science. Students will gain a broad understanding of the areas composing computer science. Additionally, there is a focus on the areas of computer programming, gaming/mobile development, and artificial intelligence/robotics.*

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

## INTRODUCTION TO ENTREPRENEURSHIP

5508

IDOE #5967

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

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

## INTRODUCTION TO ADVANCED MANUFACTURING AND LOGISTICS

4796

IDOE #4796

*INT ADV MFTG Introduction to Advanced Manufacturing and Logistics focuses on manufacturing systems with an introduction to advanced manufacturing and logistics and their relationship to society, individuals, and the environment. Students apply the skills and knowledge of using modern manufacturing processes to obtain resources and change them into industrial materials, industrial products and consumer products. Students investigate the properties of engineered materials. Students study six major types of material processes: casting and molding; forming; separating; conditioning; finishing; and assembling. After gaining a working knowledge of these materials, students are introduced to advanced manufacturing, logistics, and business principles that are*

utilized in today's advanced manufacturing industry. Students gain a basic understanding of tooling, electrical skills, operation skills, inventory principles, MSDS's, chart and graph reading and MSSC concepts. There is also an emphasis placed on the flow process principles, material movement, safety, and related business operations. Students have the opportunity to develop the characteristics employers seek as well as skills that will help them in future endeavors.

- Recommended Grade: 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

## **PREPARING FOR COLLEGE AND CAREERS**

**5501**

*IDOE #5394*

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

- Recommended Grade(s): 9
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- **Only 1 credit may count toward CTE Concentrator Status for Perkins IV Pathways**
- **Qualifies as one of the FACS courses a student can take to waive the Health & Wellness graduation requirement. To qualify for a waiver, a student must take three of the approved courses. For more information, please see 511 IAC 6-7.1-4(c)(6).**
- **Counts as a directed elective or elective for all diplomas**

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

**5501J**

*IDOE #5394*

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

- Recommended Grade(s): 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum

- **Counts as an elective or Employability for the Certificate of Completion**

## **COMPUTERS IN DESIGN & PRODUCTION**

**7023 or 7023DC**

IDOE #4800

*COMP DES Computers in Design and Production is a course that specializes in using modern technological processes, computers, design, and production systems in the production of products and structures through the use of automated production systems. Emphasis is placed on using modern technologies and on developing career related skills for electronics, manufacturing, precision machining, welding, and architecture career pathways. Students apply ingenuity using tools, materials, processes, and resources to create solutions as it applies in the electronics, manufacturing, precision machining, welding, and architecture. The content and activities should be developed locally in accordance with available advanced technologies in the school. Course content should address major technological content related to topics such as: Architectural drawing and print design, design documentation using CAD systems; assignments involving the interface of CAD, CNC, CAM, and CIM technologies; computer simulation of products and systems; publishing of various media; animation and related multimedia applications; 3-D modeling of products or structures; digital creation and editing of graphics and audio files; control technologies; and automation in the modern workplace.*

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum

- **Counts as a directed elective or elective for all diplomas**

## **INTRODUCTION TO COMMUNICATIONS**

**7665**

IDOE #4790

*INT COMM Introduction to Communications is a course designed to provide a foundational knowledge of identifying and using modern communication to exchange messages and information. This course explores the application of the tools, materials, and techniques used to design, produce, use, and assess systems of communication. Students will produce graphic and electronic media as they apply communication technologies. This course will also explore the various technical processes used to link ideas and people through the use of electronic and graphic media. Major goals of this course include an overview of communication technology; the way it has evolved, how messages are designed and produced, and how people may profit from creating information services and products. Students will explore mass media communication processes including radio and television broadcasting, publishing and printing activities, telecommunication networks, recording services, computer and data processing networks, and other related systems. Students will use the design process to solve design projects in each communication area.*

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum

- **Counts as a directed elective or elective for all diplomas**

## **INTRODUCTION TO CONSTRUCTION**

**7261**

IDOE #4792

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



construction project in this course. Students study construction technology topics such as preparing a site, doing earthwork, setting footings and foundations, building the superstructure, enclosing the structure, installing systems, finishing the structure, and completing the site. Students also investigate topics related to the purchasing and maintenance of structures, special purpose facilities, green construction and construction careers.

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

## INTRODUCTION TO TRANSPORTATION

7663

IDOE #4798

*INT TRANS Introduction to Transportation is an introductory course designed to help students become familiar with fundamental principles in modes of land, sea, air, and space transportation, including basic mechanical skills and processes involved in transportation of people, cargo, and goods. Students will gain and apply knowledge and skills in the safe application, design, production, and assessment of products, services, and systems as it relates to the transportation industries. Content of this course includes the study of how transportation impacts individuals, society, and the environment. This course allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant transportation related activities, problems, and settings.*

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

## ADVANCED CHILD DEVELOPMENT

6452

IDOE #5360

*ADVCHLDDEV Advanced Child Development is for those students interested in life foundations, academic enrichment, and/or careers related to knowledge of children, child development, and nurturing of children. This course addresses issues of child development from ages four through age eight (grade three). It builds on the Child Development course, which is a prerequisite. Advanced Child Development includes the study of professional and ethical issues in child development; child growth and development; child development theories, research, and best practices; child health and wellness; teaching and guiding children; special conditions affecting children; and career exploration in child development and nurturing. A project-based approach that utilizes higher order thinking, communication, leadership, management, and fundamentals to college and career success is recommended in order to integrate these topics into the study of child development. Direct, concrete mathematics and language arts proficiencies will be applied.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

## HUMAN DEVELOPMENT AND WELLNESS

6433

IDOE #5366

*HUMAN DEV Human Development and Wellness is valuable for all students as a life foundation and academic enrichment; it is especially relevant for students interested in careers impacted by individual's physical, social, emotional, and moral development and wellness across the lifespan. Major topics include principles of human development and wellness; impacts of family on human development and wellness; factors that affect human development and wellness; practices that promote human development and wellness; managing resources and services related to human development and wellness; and career exploration in human development and*

*wellness. Life events and contemporary issues addressed in this course include (but are not limited to) change; stress; abuse; personal safety; and relationships among lifestyle choices, health and wellness conditions, and diseases. A project-based approach that utilizes higher order thinking, communication, leadership, and management processes is recommended in order to integrate the study of these topics. Authentic applications through service learning are encouraged.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Qualifies as one of the FACS courses a student can take to waive the Health & Wellness graduation requirement. To qualify for the Health and Wellness waiver, a student must take three of the app**

## **APPLIED HUMAN DEVELOPMENT AND WELLNESS**

**6433J**

IDOE #5366

*HUMAN DEV Applied Human Development and Wellness is valuable for all students as a life foundation and academic enrichment. Course content includes individuals' physical, social, emotional, and moral development and wellness across the lifespan. Major topics include principles of human development and wellness; impacts of family on human development and wellness; factors that affect human development and wellness; practices that promote human development and wellness; managing resources and services related to human development and wellness; and career exploration in human development and wellness. Life events and contemporary issues addressed in this course include (but are not limited to) change; stress; abuse; personal safety; and relationships among lifestyle choices, health and wellness conditions, and diseases. A project or community-based approach that utilizes problem solving skills, communication, leadership, self-determination skills, and management processes is recommended in order to apply and generalize these skills in authentic settings.*

- Recommended Grade(s): 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- **Counts as an Employability Requirement or elective for the Certificate of Completion**

## **INTRODUCTION TO CULINARY ARTS AND HOSPITALITY**

**5438**

IDOE #5438

*INT CUL HOS Introduction to Culinary Arts and Hospitality is recommended for all students regardless of their career cluster or pathway, in order to build basic culinary arts knowledge and skills. It is especially appropriate for students with an interest in careers related to Hospitality, Tourism, and Culinary Arts. A project-based approach that utilizes higher order thinking, communication, leadership, and management processes is recommended. Topics include basic culinary skills in the foodservice industry, safety and sanitation, nutrition, customer relations and career investigation. Students are able to explore this industry and examine their own career goals in light of their findings. Laboratory experiences that emphasize industry practices and develop basic skills are required components of this course.*

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: Nutrition and Wellness; Advanced Nutrition and Wellness
- Credits: 1-2 semester course, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

## **INTRODUCTION TO FASHION & TEXTILES**

**6421**

IDOE #5380

*FSHNTX Introduction to Fashion and Textiles is an introductory course for those students interested in academic enrichment or a career in the fashion, textile, and apparel industry. This course addresses knowledge and skills related to design, production, acquisition, and distribution in the fashion, textile, and apparel arena. The course includes the study of personal, academic, and career success; careers in the fashion, textile, and apparel industry; factors influencing the merchandising and selection of fashion, textile, and apparel goods and their properties, design, and production; and consumer skills. A project-based approach integrates instruction and laboratory experiences including application of the elements and principles of design, aesthetics, criticism, history and production; selection, production, alteration, repair, and maintenance of apparel and textile products; product research, development, and testing; and application of technical tools and equipment utilized in the industry. Direct, concrete mathematics proficiencies will be applied. Service learning and other authentic applications are strongly recommended. This course provides the foundation for continuing and post-secondary education in fashion, textile, and apparel-related careers.*

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

## **INTRODUCTION TO HOUSING & INTERIOR DESIGN**

**6461**

**IDOE #5350**

*Introduction to Housing and Interior Design is an introductory course essential for those students interested in academic enrichment or a career within the housing, interior design, or furnishings industry. This course addresses the selection and planning of designed spaces to meet the needs, wants, values and lifestyles of individuals, families, clients, and communities. Housing decisions, resources and options will be explored including factors affecting housing choices and the types of housing available. Developmental influences on housing and interior environments will also be considered. Basic historical architectural styling and basic furniture styles will be explored as well as basic identification of the elements and principles of design. Design and space planning involve evaluating floor plans and reading construction documents while learning to create safe, functional, and aesthetic spaces. Presentation techniques will be practiced to thoroughly communicate design ideas. Visual arts concepts including aesthetics, criticism, history and production, are addressed. Direct, concrete mathematics proficiencies will be applied. A project-based approach will be utilized requiring higher order thinking, communication, leadership and management processes as housing and interior design content is integrated into the design of interior spaces while meeting specific project criteria. This course provides the foundation for further study and careers in the architecture, construction, housing, interior design, and furnishings industries.*

- Recommended Grade(s): 9,10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum

## **APPLIED NUTRITION AND WELLNESS**

**5342J**

**IDOE #5342**

*NTRN WLNS Applied Nutrition and Wellness is an introductory course valuable for all students as a life foundation and academic enrichment. This is a nutrition class that introduces students to only the basics of food preparation so they can become self-sufficient in accessing healthy and nutritious foods. Major course topics include nutrition principles and applications; influences on nutrition and wellness; food preparation, safety, and sanitation; and science, technology, and careers in nutrition and wellness. A project-based approach that utilizes higher order thinking, communication, leadership, self-determination, and management processes, and fundamentals to college and career success is recommended in order to integrate these topics into the study of*



*nutrition, food, and wellness. Food preparation experiences are a required component. Direct, concrete mathematics and language arts proficiencies will be applied.*

- Recommended Grade(s): 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 credit per semester, 1 credit maximum
- **Counts as an Employability Requirement or elective for the Certificate of Completion**

## **ADVANCED NUTRITION AND WELLNESS**

**6432**

IDOE #5340

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

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Nutrition and Wellness
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

## **INTRODUCTION TO HEALTH SCIENCE CAREERS**

**7853**

IDOE #5272

*INTRO HS CAREERS Introduction to Health Science Careers is an exploratory course designed to provide students with an opportunity to investigate all aspects of the health science industry. Students will receive an introduction to healthcare systems and examine a variety of pathways in health science, and reflect on their own knowledge, skills and interests, to begin to narrow the areas within health science they want to continue exploring, in preparation for further study in Health Science I*

- Recommended Grade(s): 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: Preparing for College and Careers
- Credits: 1 or 2 semester course, 1 credit per semester, maximum of 2 credits
- **Counts as a directed elective or elective for all diplomas**

## **HEALTH SCIENCE EDUCATION I**

**7819 or 7819DC**

IDOE #5282

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

- Recommended Grade(s): 11

- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Health Science Careers
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, maximum of 2 credits
- **Counts as a directed elective or elective for all diplomas**
- **Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.**

## **WORK BASED LEARNING CAPSTONE**

**5891**

*IDOE #5974*

*WBL Work Based Learning Capstone is a stand-alone course that prepares students for college and career. Work-Based Learning means sustained interactions with industry or community professionals in real workplace settings, to the extent practicable, or simulated environments at an educational institution that foster in-depth, first hand engagement with the tasks required of a given career field, that are aligned to curriculum and instruction. Work Based Learning Capstone experiences occur in workplaces and involve an employer assigning a student meaningful job tasks to develop his or her skills, knowledge, and readiness for work. A clear partnership agreement and training plan is developed by the student, teacher, and workplace mentor/supervisor to guide the student's work-based experiences and assist in evaluating achievement and performance. Related Instruction shall be organized and planned around the activities associated with the student's individual job and career objectives in a pathway and shall be taught during the same semester the student is participating in the work-based experience. For a student to become employable, the related instruction should cover: (a) employability skills, and (b) specific occupational competencies.*

- Recommended Grade(s): 12
- Required Prerequisites: Complete at least one advanced career and technical education course from a program or program of study. Worksite placement must align to the student pathway.
- Recommended Prerequisites: none
- Credits: 1 semester course, 1-3 credits per semester, 6 credits maximum
- **A minimum of 85 hours of workplace and classroom activities are required for one credit; 170 hours are required for the two credits. Of the 85 or 170 hours, 18 to 36 hours (at least)**
- **Counts as a directed elective or elective for all diplomas**
- **Course is funded at a flat rate of \$500; No longer counts toward concentrator status.**

## **APPLIED WORK BASED LEARNING CAPSTONE**

**5891J**

*IDOE #5974*

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

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1-3 credits per semester, 6 credits maximum
- **Counts as an Employability Requirement, Capstone Course or elective for the Certificate of Completion**

## **CAREER EXPLORATION INTERNSHIP**

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

- Recommended Grade(s): 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Preparing for College and Careers; Career Information and Exploration
- Credits: 1 semester course, 1-3 credits per semester, 6 credits maximum
- A minimum of 85 hours of workplace and classroom activities are required for one credit; 170 hours are required for the two credits. Of the 85 or 170 hours, 18 to 36 hours (at least 1 hour a week or the equivalent over a semester or year) must be spent in related classroom instruction. Schools on block schedules may proportionately adjust the total number of hours per week to meet the local standard, provided that students spend at least one hour a week in classroom activities.
- Counts as a directed elective or elective for all diplomas
- Note: This course is exploratory in nature and, as such, does not qualify for reimbursement under the career and technical education funding formula.

## NEXT LEVEL PROGRAMS OF STUDY (NLPS)

### ADVANCED MANUFACTURING

#### INDUSTRY 4.0 - SMART MANUFACTURING

##### Principles - Level I: Principles of Industry 4.0 - Smart Manufacturing

**7220 or 7220DC**

IDOE #7220

*PRIN DIG MANF Principles of Industry 4.0 introduces students to the Industrial Internet of Things (IIoT). Students will explore Industry 4.0 technologies such as artificial intelligence (AI), human to robot collaboration, big data, safety, electrical, sensors, digital integration, fluid power, robot operation, measurement, CAD, CNC, additive manufacturing, print reading, and technical mathematics. Students will complete hands-on labs, virtual simulations, projects, and critical thinking assignments to help prepare for SACA C-101 Certified Industry 4.0 Associate I - Basic Operations certification exam.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none •Recommended Prerequisites: Introduction to Advanced Manufacturing
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

##### CTE Concentrator A - Level I: Robotics Design and Innovation

**4728 or 4728DC**

IDOE #4728

*AG MECH CAP The Agriculture Mechanization and Technology Capstone course builds upon the knowledge and skills developed in the Principles, Ag Power, Structures and Technology, Agricultural Structures Fabrication and Design courses by developing advanced skills that students can apply to the field. Students enrolled in this course will participate in lab activities involving agricultural equipment such as fueled power engines, electrical motors, pneumatic and hydraulic systems, etc. Students will be instructed on the operation, maintenance, repair, engineering and design of the agricultural mechanics and technology systems. As a capstone course, students should have the opportunity to apply their knowledge and use skills through an intensive work-based learning experience.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Ag Power, Structures and Technology; Ag Structures Fabrication and Design (-or- Precision Ag)
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits max
- **Counts as a directed elective or elective credits for all diplomas**

##### CTE Concentrator B - Level I: Smart Manufacturing Systems

**7100 or 7100DC**

IDOE #7100

*DIG MAN SYS Smart Manufacturing Systems will deepen students' technical skills by studying the electrical system required to support an Industry 4.0 manufacturing system and building on skills learned in Principles of Industry 4.0 and Robotics Design and Innovation. Topics include Industry 4.0 technologies such as data analytics, cyber security, and smart sensors. Students will work on a 4-6 student team to build a working prototype of an Industry 4.0 system. Highlights include: Variable Frequency Drives, PLC troubleshooting, Cyber Security, Smart Sensors, and Smart network communications.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Industry 4.0 - Smart Manufacturing; Robotics Design and Innovation
- Recommended Prerequisites: none

- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

## **Pathway Capstone - Level II: Industry 4.0 - Smart Manufacturing Capstone**

**7222 or 7222DC**

IDOE #7222

DIG MANF CAP

*Industry 4.0 - Smart Manufacturing Capstone introduces the basic theory, operation, and programming of industrial robots and their applications through simulations and hands-on laboratory activities. Basic theory, operation, and programming of Programmable Logic Controllers (PLC) will be emphasized in this course along with how automation devices may be integrated with other machines. Multiple industry standard certifications in the field of robotics and automation will be available depending on the length of the course. As a capstone course, students are encouraged to participate in an intensive, embedded work-based learning experience.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Industry 4.0 - Smart Manufacturing; Robotics Design and Innovation; Smart Manufacturing Systems
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

## **INDUSTRIAL AUTOMATION AND ROBOTICS**

### **Principles - Level I: Principles of Advanced Manufacturing**

**7108 or 7108DC**

IDOE #7108

*PRIN ADV MAN Principles of Advanced Manufacturing is a course that includes classroom and laboratory experiences in Industrial Technology and Manufacturing Trends. Domains include safety and impact, manufacturing essentials, lean manufacturing, design principles, and careers in advanced manufacturing. Hands-on projects and team activities will allow students to apply learning on the latest industry technologies. Work-based learning experiences and industry partnerships are highly encouraged for an authentic industry experience.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Advanced Manufacturing
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator A - Level I: Advanced Manufacturing Technology**

**7103 or 7103DC**

IDOE #7103

*ADV MAN TECH Advanced Manufacturing Technology introduces manufacturing processes and practices used in manufacturing environments. The course also covers key electrical principles, including current, voltage, resistance, power, inductance, capacitance, and transformers, along with basic mechanical and fluid power principles. Topics include, types of production, production materials, machining and tooling, manufacturing planning, production control, and product distribution will be covered. Students will be expected to understand the product life cycle from conception through distribution. This course also focuses on technologies used in production processes. Basic power systems, energy transfer systems, machine operation and control will be explored. This course will use lecture, lab, online simulation and programming to prepare students for Certified Production Technician Testing through Manufacturing Skill Standards Council (MSSC).*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Advanced Manufacturing
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

## **CTE Concentrator B - Level I: Mechatronics Systems**

**7106 or 7106DC**

IDOE #7106

*MECH SYS Mechatronics Systems covers the basic electrical and mechanical components and functions of a complex mechatronics system. Through a systems approach, students will learn about mechanical components which lead and support the energy through a mechanical system to increase efficiency and to reduce wear and tear. By understanding the complete system, students will learn and apply troubleshooting strategies to identify, localize and (where possible) to correct malfunctions. Preventive maintenance of mechanical elements and electrical drives as well as safety issues within the system will also be discussed.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Advanced Manufacturing; Advanced Manufacturing Technology
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

## **Pathway Capstone - Level II: Industrial Automation and Robotics Capstone**

**7224 or 7224DC**

IDOE #7224

*AUTO ROB CAP The Automation and Robotics Capstone course focuses on the installation, maintenance, and repair of industrial robots. Students will also learn the basics of pneumatic, electro pneumatic and hydraulic control circuits as well as the basic theory, fundamentals of digital logic, and programming of programmable logic controllers (PLCs) in a complex mechatronic system. Students will learn to identify malfunctioning robots and to apply troubleshooting strategies to identify and localize problems caused by pneumatic and hydraulic control circuits and PLC hardware. Completing the capstone course will provide students the opportunity to earn a postsecondary certificate and will prepare students to take nationally recognized industry certification exams. Hands-on projects and team activities will allow students to apply learning on the latest industry technologies. Extended work-based learning experiences and industry partnerships are highly encouraged for an authentic industry experience.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Advanced Manufacturing; Advanced Manufacturing Technology; Mechatronics Systems
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

## **PRECISION MACHINING**

### **Principles - Level I: Principles of Precision Machining**

**7109 or 7109DC**

IDOE #7109

*PRIN PREC MACH Principles of Precision Machining will provide students with a basic understanding of the processes used to produce industrial goods. Classroom instruction and labs will focus on shop safety, measurement, layout, blueprint reading, shop math, metallurgy, basic hand tools, milling, turning, grinding, and sawing operations. This course prepares the student for the optional National Institute for Metalworking Skills (NIMS) Measurement, Materials, & Safety certification that may be required for college dual credit.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Advanced Manufacturing
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**



## **CTE Concentrator A - Level I: Precision Machining Fundamentals**

**9000 or 9000DC**

IDOE #7105

*MACH FUN Precision Machining Fundamentals will build a foundation in conventional milling and turning. Students will be instructed in the classroom on topics of shop safety, theory, industrial terminology, and calculations. Lab work will consist of the setup and operation of vertical and/or horizontal milling machines and engine lathes. This course prepares the student for the optional National Institute for Metalworking Skills (NIMS) Milling I certification that may be required for college dual credit.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Precision Machining
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**
- **It is recommended that Precision Machining program of study be taught in a 2-3 period block of time. VU dual credit requires that Precision Machining Fundamentals and Advanced Precision Machining be completed concurrently**

## **CTE Concentrator B - Level I: Advanced Precision Machining**

**7107 or 7107DC**

IDOE #7107

*PREC MACH Advanced Precision Machining will build upon the Turning and Milling processes learned in Precision Machining Fundamentals and will build a foundation in abrasive process machines. Students will be instructed in the classroom on topics of shop safety, theory, industrial terminology, and calculations associated with abrasives. Lab work will consist of the setup and operation of bench grinders and surface grinders. Additionally students will be introduced to Computerized Numeric Controlled (CNC) setup, operations and programming. This course prepares the student for the optional National Institute for Metalworking Skills (NIMS) Grinding I certification that may be required for college dual credit.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Precision Machining; Precision Machining Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**
- **It is recommended that Precision Machining program of study be taught in a 2-3 period block of time.**
- **VU dual credit requires that Precision Machining Fundamentals and Advanced Precision Machining be completed concurrently**

## **Pathway Capstone - Level II: Precision Machining Capstone**

**7219 or 7219DC**

IDOE #7219

*PREC MACH CAP Precision Machining Capstone is an in-depth study of skills learned in Precision Machining I, with a stronger focus on CNC setup/operation/programming. Students will be introduced to two axis CNC lathe programming and three axis CNC milling machine programming. Develops the theory of programming in the classroom with applications of the program accomplished on industry-type machines. Studies terminology of coordinates, cutter paths, angle cutting, and linear and circular interpolation. Classroom activities will concentrate on precision set-up and inspection work, as well as machine shop calculations. Students will develop skills in advanced machining and measuring parts involving tighter tolerances and more complex geometry. A continued focus on safety will also be presented.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Precision Machining; Precision Machining Fundamentals; Advanced Precision Machining
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum

- **Counts as a Directed Elective or Elective for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

## **WELDING TECHNOLOGY**

### **Principles - Level I: Principles of Welding Technology**

**7110 or 7110DC**

*IDOE #7110*

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

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Advanced Manufacturing
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator A - Level I: Shielded Metal Arc Welding**

**7111 or 7111DC**

*IDOE #7111*

*SHLD MAW Shielded Metal Arc Welding involves the theory and application of the Shielded Metal Arc Welding process. Process theory will include basic electricity, power sources, electrode selection, and all aspects pertaining to equipment operation and maintenance. Laboratory welds will be performed in basic weld joints with a variety of electrodes in the flat, horizontal and vertical positions. Emphasis will be placed on developing the basic skills necessary to comply with AWS industry standards.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Welding Technology
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator B - Level I: Gas Welding Processes**

**7101 or 7101DC**

*IDOE #7101*

*GAS WEL PRC Gas Welding Processes is designed to cover the operation of Gas Metal Arc Welding (MIG) equipment. This will include all settings, adjustments and maintenance needed to weld with a wire feed system. Instruction on both short-arc and spray-arc transfer methods will be covered. Tee, lap, and open groove joints will be done in all positions with solid, fluxcore, and aluminum wire. Test plates will be made for progress evaluation. Schools may choose to offer the course as a comprehensive MIG Welding course or a combination of introductory MIG and TIG Welding operations.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Welding Technology
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Schools may choose to cover both introductory MIG and TIG Welding. This configuration is available for dual credit through ITCC.**



## **Pathway Capstone - Level II: Welding Technology Capstone**

**7226 or 7226 DC**

IDOE #7226

*WELD TECH CAP The Welding Technology Capstone course builds upon the knowledge and skills developed in Welding Fundamentals, Shielded Metal Arc Welding, and Gas Metal Arc Welding by developing advanced welding skills in Gas Tungsten Arc Welding (TIG), Pipe Welding, and Fabrication. As a capstone course, students should have the opportunity to apply their knowledge and use skills through an intensive work-based learning experience.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Welding Technology; Shielded Metal Arc Welding; Gas Welding Processes
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

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

### **HORTICULTURE**

#### **Principles - Level I: Principles of Agriculture**

**7117 or 7117DC**

IDOE #7117

*PRIN AG Principles of Agriculture is a two semester course that will cover the diversity of the agricultural industry and agribusiness concepts. Students will develop an understanding of the role of agriculture in the United States and globally. Students will explore Agriculture, Food, and Natural Resource (AFNR) systems related to the production of food, fiber and fuel and the associated health, safety and environmental management systems. Topics covered in the course range from animals, plants, food, natural resources, ag power, structures and technology, and agribusiness. Participation in FFA and Supervised Agricultural Experiences (SAE) will be an integral part of this course in order to develop leadership and career ready skills.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective credits for all diplomas**

#### **CTE Concentrator A - Level I: Horticultural Science**

**5132 or 5132DC**

IDOE #5132

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

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Agriculture\*
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas.**
- **Fulfills a Life Science or Physical Science requirement for the General Diploma**

- **\*Principles course is not required until the 2024-25 school year because this course is included in Perkins V pathways.**

### **CTE Concentrator B - Level I: Greenhouse and Soilless Production**

**7114 or 7114DC**

IDOE #7114

*GRN S PROD Greenhouse and Soilless Production is a two semester course that provides an overview of structural designs and uses of enclosed structures (greenhouses) to grow various plants and food. The course will focus on discussing different types of enclosed structures, management systems, and growing systems used to produce plants and food. The course will also present an overview of soilless growing systems such as hydroponics, aquaponics, aeroponics and fogponics. Students will utilize the school greenhouse as part of this course.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Agriculture
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective credits for all diplomas**

### **Pathway Capstone - Level II: Horticulture Capstone**

**9011 or 9011DC**

IDOE #7232

*HORT CAP The Horticulture Capstone course builds upon the knowledge and skills developed in the Principles, Horticultural Science, and Greenhouse and Soilless Production courses by developing advanced skills that students can apply to the field. As a capstone course, students should have the opportunity to apply their knowledge and use skills through an intensive work based learning experience.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Agriculture; Horticultural Science; Greenhouse and Soilless Production
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits max
- **Counts as a directed elective or elective credits for all diplomas**

## **LANDSCAPING**

### **Principles - Level I: Principles of Agriculture**

**7117 or 7117DC**

IDOE #7117

*PRIN AG Principles of Agriculture is a two semester course that will cover the diversity of the agricultural industry and agribusiness concepts. Students will develop an understanding of the role of agriculture in the United States and globally. Students will explore Agriculture, Food, and Natural Resource (AFNR) systems related to the production of food, fiber and fuel and the associated health, safety and environmental management systems. Topics covered in the course range from animals, plants, food, natural resources, ag power, structures and technology, and agribusiness. Participation in FFA and Supervised Agricultural Experiences (SAE) will be an integral part of this course in order to develop leadership and career ready skills.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective credits for all diplomas**

### **CTE Concentrator A - Level I: Horticultural Science**

**5132 or 5132DC**

I

DOE #5132

*HORT SCI Horticulture Science is a two semester course that provides students with a background in the field of horticulture. Coursework includes hands-on activities that encourage students to investigate areas of horticulture as it relates to the biology and technology involved in the production, processing, and marketing of horticultural*

plants and products. Students are introduced to the following areas of horticulture science: reproduction and propagation of plants, plant growth, growth-media, management practices for field and greenhouse production, marketing concepts, production of plants of local interest, greenhouse management, floral design, and pest management. Students participate in a variety of activities including extensive laboratory work usually in a school greenhouse.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Agriculture\*
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas.**
- **Fulfills a Life Science or Physical Science requirement for the General Diploma**
- **\*Principles course is not required until 2024-25 school year because this course is included in Perkins V pathways.**

### **CTE Concentrator B - Level I: Landscape and Turf Management**

**7115 or 7115DC**

*IDOE #7115*

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

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Agriculture
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective credits for all diplomas**

### **Pathway Capstone - Level II: Landscape Management Capstone**

**9022 or 9022DC**

*IDOE #7234*

*LANDSC MGMT CAP The Landscape Capstone course builds upon the knowledge and skills developed in the Principles, Horticultural Science and Landscape and Turf Management courses by developing advanced skills that students can apply to the field. As a capstone course, students should have the opportunity to apply their knowledge and use skills through an intensive work-based learning experience.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Agriculture; Horticultural Science; Landscape and Turf Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits max
- **Counts as a directed elective or elective credits for all diplomas**

## **VETERINARY SCIENCE**

### **Principles - Level I: Principles of Veterinary Science**

**7280 or 7280DC**

*IDOE #7280*

*PRIN VET SCI Principles of Veterinary Science is a two semester course that provides students with an overview of the small and large animal veterinary industry which includes companion, food, and exotic animals. Principles of Veterinary Science will cover skills common to specific veterinary career topics such as animal care, veterinary assistant, veterinary technician, and veterinarian. Students will learn foundational veterinary knowledge for large and small animals which includes practical lab skills and common office practices.*

- Recommended Grade(s): 9, 10, 11

- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

### **CTE Concentrator A - Level I: Veterinary Science**

**7281 or 7281DC**

IDOE #7281

*VET SCI Veterinary Science is a two semester course that provides students with opportunities to participate in a variety of activities including laboratory work. Students will explore concepts related to medical terminology, laboratory procedures, clinical examination procedures, principles of animal diseases, as well as work in veterinary clinic management and veterinary law and ethics.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Veterinary Science
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

### **CTE Concentrator B - Level I: Advanced Life Science, Animals (L)**

**5070 or 5070DC**

IDOE #5070

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

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Agriculture\*; or Principles of Veterinary Science\*
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources; Animal Science; Biology; Chemistry; Integrated Chemistry Physics
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as an elective or directed elective for all diplomas.**
- **Fulfills a science requirement for all diplomas.**
- **QMR: Qualifies as a quantitative reasoning course**
- **\*Principles course is not required until the 2024-25 school year because this course is included in Perkins V pathways.**

### **Pathway Capstone - Level II: Veterinary Science Capstone**

**7282 or 7282DC**

IDOE #7282

*VET SCI CAP Veterinary Science Capstone is a two semester course that builds upon the knowledge and skills developed in the animal and veterinary courses by developing advanced skills that students can apply to the field. As a capstone course, students should have the opportunity to apply their knowledge and use skills through an intensive work-based learning experience. Students will explore concepts related to pharmacy and pharmacology, medical math, animal nursing, radiology and ultrasound imaging, surgical preparation and assisting*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Veterinary Science; Advanced Life Science: Animals; Veterinary Science
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

## ARCHITECTURE AND CONSTRUCTION

### CONSTRUCTION TRADES - CARPENTRY

#### Principles - Level I: Principles of Construction Trades

**7130 or 7130DC**

IDOE #7130

*PRIN CON TR Principles of Construction Trades prepares students with the basic skills needed to continue in a construction trade field. Topics will include an introduction to the types and uses for common hand and power tools, learn the types and basic terminology associated with construction drawings, and basic safety. Additionally students will study the roles of individuals and companies within the construction industry and reinforce mathematical and communication skills necessary to be successful in the construction field.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

#### CTE Concentrator A - Level I: Construction Trades: General Carpentry

**7123 or 7123DC**

IDOE #7123

*CON TRD GC Construction Trades: General Carpentry builds upon the skills learned in the Principles of Construction Trades and examines the basics of framing. This includes studying the procedures for laying out and constructing floor systems, wall systems, ceiling joist and roof framing, and basic stair layout. Additionally, students will be introduced to building envelope systems.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Construction Trades; or Principles of Architecture, Engineering and Construction
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

#### CTE Concentrator B - Level I: Construction Trades: Framing and Finishing

**7122 or 7122DC**

IDOE #7122

*CON TRD FR FIN Construction Trades: Framing and Finishing prepares students with advanced framing skills along with interior and exterior finishing techniques. Topics include roofing applications, thermal and moisture protection, exterior finishing, cold-formed steel framing, drywall installation and finishing, doors and door hardware, suspended ceilings, window, door, floor, and ceiling trim, and cabinet installation.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Construction Trades; Construction Trades: General Carpentry
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

#### Pathway Capstone - Level II: Construction Trades Capstone

**7242 or 7242DC**

IDOE #7242

*CSTR TR CAP The Construction Trades Capstone course covers the basics of electricity and working with concrete. Electrical topics include the National Electric Code, electrical safety, electrical circuits, basic electrical construction drawings, and residential electrical services. Students may also gain an understanding of concrete properties, foundations, slab-on-grades, and vertical and horizontal formwork. The course prepares students for the NCCER Carpentry Forms Level 3 and Electrical Level 1 certificates.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Construction Trades; Construction Trades: General Carpentry; and Construction Trades: Framing and Finishing
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

## CONSTRUCTION TRADES - ELECTRICAL

### Principles - Level I: Principles of Construction Trades

**7130 or 7130DC**

IDOE #7130

*PRIN CON TR Principles of Construction Trades prepares students with the basic skills needed to continue in a construction trade field. Topics will include an introduction to the types and uses for common hand and power tools, learn the types and basic terminology associated with construction drawings, and basic safety. Additionally students will study the roles of individuals and companies within the construction industry and reinforce mathematical and communication skills necessary to be successful in the construction field.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### CTE Concentrator A - Level I: Electrical Fundamentals

**7124 or 7124DC**

IDOE #7124

*ELEC FUN This course covers NCCER Electrical Level 1. Its modules cover topics such as orientation to the electrical trade, electrical safety, introduction to electrical circuits, electrical theory, introduction to the National Electrical Code, device boxes, hand bending, raceways and fittings, conductors and cables, basic electrical construction drawings, residential electrical services, and electrical test equipment. The NCCER Electrical Level 1 certificate and wallet card will also be awarded upon successful completion of this course.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Construction Trades
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### CTE Concentrator B - Level I: Advanced Electrical

**7119 or 7119DC**

IDOE #7119

*ADV ELEC Advanced Electrical covers topics such as alternating current, motors: theory and application, electric lighting, conduit bending, and pull and junction boxes. The second part of the course will cover topics such as conductor installations, cable tray, conductor terminations and splices, grounding and bonding, circuit breakers and fuses, control systems and fundamental concepts. Students will be ready to complete the NCCER Electrical Level 2 certificate upon successful completion of the course.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Construction Trades; Electrical Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**



**Pathway Capstone - Level II: Construction Trades Electrical Capstone**  
**7263 or 7263DC**

IDOE #7263

*CT ELEC CAP Construction Trades Electrical Capstone builds upon the skills learned in Electrical Fundamentals and Advanced Electrical. Topics include load calculations – branch and feeder circuits, conductor selection and calculations, practical applications of lighting. This course will also cover commercial electrical services including distribution equipment, transformers, and voice, data and video. Completion of this course will prepare students for the NCCER Electrical Level 3 certificate. Students may also complete an Ivy Tech CT by completing coursework in general carpentry.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Construction Trades; Electrical Fundamentals; Advanced Electrical
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

**ARCHITECTURE DESIGN TECHNOLOGY (STEM)**  
**(formerly Mechanical Drafting and Design)**

**Principles - Level I: Introduction to Engineering Design**  
**4802 or 4802DC**

IDOE #4802

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

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **NOTE: Schools that have agreed to be part of the Project Lead the Way network must follow all training and data collection requirements.**

**CTE Concentrator A - Level I: Mechanical and Architectural Design**  
**7196 or 7196DC**

IDOE #7196

*ARCT DES Mechanical and Architectural Design provides students with a basic understanding of creating working drawings related to manufacturing detailing and assembly as well as a survey of Architectural design focused on the creative design of buildings. Topics include fastening devices, thread symbols and nomenclature, surface texture symbols, classes of fits, and the use of parts lists, title blocks and revision blocks. From an Architecture perspective, this course covers problems of site analysis, facilities programming, space planning, conceptual design, proper use of materials, and selection of structure and construction techniques.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Introduction to Engineering Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

## **CTE Concentrator B - Level I: BIM Architecture**

**7197 or 7197DC**

IDOE #7197

*COMP A DSGN BIM Architecture will introduce students to Building Information Modeling (BIM) which is an intelligent 3D model-based process that gives architecture, engineering, and construction professionals the insight and tools to better plan, design, and construct buildings. Students will deepen their skills in 3D CAD and learn to use BIM software to capture and analyze concepts and to prepare client presentations for Commercial Construction.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Introduction to Engineering Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

## **Pathway Capstone - Level II: Architectural Design Capstone**

**7225 or 7225DC**

IDOE #7225

*ARCH DES CAP Architectural Design Capstone covers residential design and drafting. Topics include interior space planning, structural design and development of working drawings. The course provides opportunity for students to design a residence using accepted building standards and introduces various construction materials. Students will also learn advanced CAD design topics in architectural design. Completion of the entire course may also provide students the opportunity to understand basic surveying equipment and surveying techniques.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Introduction to Engineering Design; Mechanical and Architectural Design Fundamentals; BIM Architecture
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

## **BUILDING AND FACILITIES MAINTENANCE**

### **Principles - Level I: Principles of Construction Trades**

**7130 or 7130DC**

IDOE #7130

*PRIN CON TR Principles of Construction Trades prepares students with the basic skills needed to continue in a construction trade field. Topics will include an introduction to the types and uses for common hand and power tools, learn the types and basic terminology associated with construction drawings, and basic safety. Additionally students will study the roles of individuals and companies within the construction industry and reinforce mathematical and communication skills necessary to be successful in the construction field.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator A - Level I: Building and Facilities Maintenance Fundamentals**

**7285 or 7285DC**

IDOE #7285

*BLDG FAC MAINT FUND Building and Facilities Maintenance Fundamentals prepares students to complete basic maintenance tasks like minor construction repairs and be able to repair and/or replace various building materials including flooring, wall covering, hardware, lighting and plumbing fixtures.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Construction Trades
- Recommended Prerequisites: none



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

### **CTE Concentrator B - Level I: Advanced Building and Facilities Maintenance**

**7286 or 7286DC**

IDOE #7286

*ADV BLDG FAC MAINT Advanced Building and Facilities Maintenance prepares students to complete more advanced repairs involving a building's mechanical system including electrical, HVAC, and plumbing.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Construction Trades; Building and Facilities Maintenance Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

### **Pathway Capstone - Level II: Building and Facilities Maintenance Capstone**

**7287 or 7287DC**

IDOE #7287

*BLDG FAC MAINT CAP Building and Facilities Maintenance Capstone will continue to develop students maintenance skills ideally through a work-based learning experience. Students will also explore additional topics like processing work orders, fair housing regulation compliance, environmental and regulation compliance, reporting and documentation of maintenance activities, and implementation of a preventive maintenance schedule.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Construction Trades; Building and Facilities Maintenance Fundamentals; and Advanced Building and Facilities Maintenance
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

## **ARTS, AV TECH, AND COMMUNICATIONS**

### **DIGITAL DESIGN: GRAPHIC DESIGN**

#### **Principles - Level I: Principles of Digital Design**

**7140 or 7140DC**

IDOE #7140

*PRIN DIG DES Principles of Digital Design introduces students to fundamental design theory. Investigations into design theory and color dynamics will provide experiences in applying design theory, ideas and creative problem solving, critical peer evaluation, and presentation skills. Students will have the opportunity to apply the design theory through an understanding of basic photographic theory and technique. Topics will include image capture, processing, various output methods, and light.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

#### **CTE Concentrator A - Level I: Digital Design Graphics**

**7141 or 7141DC**

IDOE #7141

*DIG DES GRAPH Digital Design Graphics will help students to understand and create the most common types of computer graphics used in visual communications. Skills are developed through work with professional vector-based and page layout software used in the industry. Additionally, students will be introduced to a full*

range of image input technology and manipulation including conventional photography, digital imaging, and computer scanners. Students will learn to communicate concepts and ideas through various imaging devices.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Digital Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator B - Level I: Graphic Design & Layout**

**5881 or 5881DC**

IDOE #5550

*GRAPH DES LT Graphic Design and Layout teaches design process and the proper and creative use of type as a means to develop effective communications for global, corporate and social application. Students will create samples for a portfolio, which may include elements or comprehensive projects in logo, stationery, posters, newspaper, magazine, billboard, and interface design.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Digital Design; Digital Design Graphics
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **The Principles course is not required until 2024-2025 school year because this course is included in Perkins V pathways.**
- **Schools wishing to offer this course for multiple credits should utilize Next Level Programs of Study courses.**

### **Pathway Capstone - Level II: Digital Design Capstone**

**7246 or 7246DC**

IDOE #7246

*DIG DES CAP The Digital Design Capstone course provides students the opportunity to dive deeper into advanced concepts of Visual Communication including user experience/user interface design, video production editing, animation and/or web design. Depending on the length of the course, students may focus their efforts on one area or explore multiple aspects.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Digital Design Concentrator Sequence
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- **Counts as a Directed Elective or Elective for all diplomas**

## **DIGITAL DESIGN: INTERACTIVE MEDIA**

### **Principles - Level I: Principles of Digital Design**

**7140 or 7140DC**

IDOE #7140

*PRIN DIG DES Principles of Digital Design introduces students to fundamental design theory. Investigations into design theory and color dynamics will provide experiences in applying design theory, ideas and creative problem solving, critical peer evaluation, and presentation skills. Students will have the opportunity to apply the design theory through an understanding of basic photographic theory and technique. Topics will include image capture, processing, various output methods, and light.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

## **CTE Concentrator A - Level I: Digital Design Graphics**

**7141 or 7141DC**

IDOE #7141

*DIG DES GRAPH Digital Design Graphics will help students to understand and create the most common types of computer graphics used in visual communications. Skills are developed through work with professional vector-based and page layout software used in the industry. Additionally, students will be introduced to a full range of image input technology and manipulation including conventional photography, digital imaging, and computer scanners. Students will learn to communicate concepts and ideas through various imaging devices.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Digital Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

## **CTE Concentrator B - Level I: Interactive Media Design**

**7138 or 7138DC**

IDOE #7138

*IN MED DES Interactive Media Design focuses on the tools, strategies, and techniques for interactive design and emerging technologies, like web and social media. Students will learn the basics of planning, shooting, editing and post-producing video and sound. Additionally, students will explore the process of integrating text, graphics, audio and video for effective communication of information.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Digital Design; Digital Design Graphics
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

## **Pathway Capstone - Level II: Digital Design Capstone**

**7246 or 7246DC**

IDOE #7246

*DIG DES CAP The Digital Design Capstone course provides students the opportunity to dive deeper into advanced concepts of Visual Communication including user experience/user interface design, video production editing, animation and/or web design. Depending on the length of the course, students may focus their efforts on one area or explore multiple aspects.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Digital Design Concentrator Sequence
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- **Counts as a Directed Elective or Elective for all diplomas**

## **FASHION TEXTILES AND DESIGN**

### **Principles - Level I: Principles of Fashion and Textiles**

**7301 or 7301DC**

IDOE #7301

*PRIN FASH TEXT Principles of Fashion and Textiles prepares students for occupations and higher education programs of study related to the entire spectrum of careers in the fashion industry. This course builds a foundation that prepares students for all aspects of the fashion creation process. Major topics include: Basic clothing construction techniques, pattern alterations, and use of commercial patterns.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

### **CTE Concentrator A - Level I: Textiles, Apparel, and Merchandising**

**7302 or 7302DC**

IDOE #7302

*TEXT APP MERCH Textiles, Apparel, and Merchandising provides a comprehensive overview of the textiles, apparel and merchandising industry specific to fashion related goods including the nature of fashion, raw materials and production, designers, retailers, and supporting services.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Fashion and Textiles
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

### **CTE Concentrator B - Level I: Advanced Textiles**

**7303 or 7303DC**

IDOE #7303

*ADV TEXT Advanced Textiles will focus on the study of textiles concerning fiber, yarn, fabric construction, and finishes which affect the selection, use, and care of textiles.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Fashion and Textiles; Textiles, Apparel, and Merchandising
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

### **Pathway Capstone - Level II: Fashion and Textiles Capstone**

**7304 or 7304DC**

IDOE #7304

*FASH TEXT CAP Fashion Textile Capstone studies the evolution of Western dress from ancient times to the twentieth century. Emphasis on representative style and change over time. Additionally, this course will focus on the Identification of physical features which affect apparel quality. Analysis of ready-to-wear apparel to identify features which produce desirable aesthetic and functional performance is also covered.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Fashion and Textiles; Textiles, Apparel, and Merchandising; Advanced Textiles
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

## **RADIO AND TELEVISION BROADCASTING**

### **Principles - Level I: Principles of Broadcasting**

**7139 or 7139DC**

IDOE #7139

*PRIN BROAD The purpose of the Principles of Broadcasting course is to provide entry-level fundamental skills for students who wish to seek or pursue opportunities in the field of broadcasting or mass media. Students will explore the technical aspects of audio and sound design for radio production and distribution, as well as, the technical aspects of video production and distribution.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator A - Level I: Audio and Video Production Essential**

**7306 or 7306DC**

IDOE #7306

*AUD VID PROD Audio and Video Production Essentials provides an in-depth study on audio and video production techniques for radio, television, and digital technologies. Students will learn skills necessary for audio production and on-air work used in radio and other digital formats. Additionally, experience will be gained in the development of the video production process; including skills in message development, directing, camera, video switcher, and character generator operations.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Broadcasting
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

### **CTE Concentrator B - Level I: Mass Media Production**

**7307 or 7307DC**

IDOE #7307

*MASS MED PROD Mass Media Production will focus on the study of theory and practice in the voice and visual aspects of radio and television performance. In addition, this course introduces the skills used to acquire and deliver news stories in a digital media format. Students will learn how to research issues and events, interview news sources, interact with law enforcement and government officials, along with learning to write in a comprehensive news style.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Broadcasting; Audio and Video Production Essentials
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

### **Pathway Capstone - Level II: Radio & TV Broadcasting Capstone**

**7308 and 7308C**

IDOE #7308

*RAD TV BROAD CAP This course will cover a variety of domains further building on skills in video production, and broadcast industry practices specific to radio, television, and digital media. Attention will be given to cross-industry synergies, emerging technologies, and the global market for media. Students are highly encouraged to do a video newscast or radio practicum to gain real world experience. In most cases this practicum may be completed through a school-based enterprise.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Broadcasting; Audio and Video Production Essentials; Mass Media Production
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

## **BUSINESS MANAGEMENT, MARKETING, AND FINANCE**

### **BUSINESS ADMINISTRATION**

#### **Principles-Level I: Principles of Business Management**

**5815 or 5815DC**

IDOE #4562

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

- Recommended Grade(s): 9, 10, 11

- Required Prerequisites: none
- Recommended Prerequisites: Digital Applications and Responsibility
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diploma

### **CTE Concentrator A - Level I: Management Fundamentals**

**7143; 71432 or 7143DC; 71432DC**

IDOE #7143

*MGMT FUND Accounting Fundamentals describes the functions of managers, including the management of activities and personnel. Describes the judicial system and the nature and sources of law affecting business. Studies contracts, sales contracts with emphasis on Uniform Commercial Code Applications, remedies for breach of contract and tort liabilities. Examines legal aspects of property ownership, structures of business ownership, and agency relationships.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Business Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective all diplomas

### **CTE Concentrator B - Level I: Accounting Fundamentals**

**4524 or 4524DC**

IDOE #4524

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

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Business Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective all diplomas**
- Formerly Introduction to Accounting

### **Pathway Capstone - Level II: Business Administration Capstone**

**72561; 72562 or 72561DC; 72562DC**

IDOE #7256

*BUS ADMIN CAP The Business Administration Capstone course will allow students to explore advanced topics in business leadership including Human Resources and International Business. Additionally students will have the chance to complete Managerial Accounting. Throughout the course students will develop business communication skills through work on projects, labs, and simulations. All of these courses represent key business competencies required by nearly all postsecondary Business schools.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Business Management; Management Fundamentals; Accounting Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

## **MARKETING AND SALES**

### **Principles - Level I: Principles of Business Management**

**5815 or 5815DC**

IDOE #4562



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

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Digital Applications and Responsibility
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator A - Level I: Marketing Fundamentals**

**5914 or 5914DC**

*IDOE #5914*

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

- Recommended Grade(s): 11,12
- Required Prerequisites: Principles of Business Management\*
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **\*Formerly Principles of Marketing; Principles course is not required until 2024-25 school year because this course is included in Perkins V pathways.**

### **CTE Concentrator B - Level I: Strategic Marketing**

**5953 or 5953DC**

*IDOE #5918*

*STRT MRKT Strategic Marketing builds upon the foundations of marketing and applies the functions of marketing at an advanced level. Students will study the basic principles of consumer behavior and examine the application of theories from psychology, social psychology, and economics. The relationship between consumer behavior and marketing activities will be reviewed.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Business Management\*; Marketing Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-2 credits per semester, 4 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **\*Principles course is not required until the 2024-25 school year because this course is included in Perkins V pathways.**

### **Pathway Capstone - Level II: Business Management Capstone**

**7201 or 7201DC**

*IDOE #7201*

*BUS MGMT CAP The Business Management Capstone is designed to provide any student with the Business Management skills necessary to run their own business or to serve in upper level management. Students will explore Management Theory, Accounting, and Business Law. The Business Management Capstone can be used with any career pathway except Business Administration. Completion of the course may allow students the opportunity to earn a CT or TC through ITCC.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Any CTE Business Concentrator Sequence except Business Administration



- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**
- **Recommended Capstone course for Entrepreneurship, Insurance, and Marketing Programs of Study**

## SUPPLY CHAIN AND LOGISTICS

### Principles - Level I: Principles of Business Management

**5815 or 5815DC**

IDOE #4562

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

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Digital Applications and Responsibility
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### CTE Concentrator A - Level I: Logistics Management

**7155 or 7155DC**

IDOE #7155

*SUP CH MAN FUN Logistics Management provides students the opportunity to explore how essential managerial functions relate to the various components of a logistics operation. Logistics concepts are approached from a manufacturing perspective with a focus on system integration and automation and lean manufacturing operations. Topics will include logistics systems, supply chain management, order, demand inventory and warehouse management, and automated components of a logistics system. Students will be prepared for the MSSC Certified Logistics Associate (CLA) and MSSC Certified Logistics Technician (CLT) certifications.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Business Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### CTE Concentrator B - Level I: Supply Chain Management

**7142 or 7142DC**

IDOE #7142

*ADV SUP CH MAN Supply Chain Management will build upon the knowledge and skills developed in the Logistics Management course by focusing on specific aspects of Supply Chain Management such as supply chain strategy, planning and design, customer service, purchasing, forecasting, inventory and warehouse management, as well as an in-depth study of transportation systems. Students will examine various modes of transportation and their associated characteristics, economics, and regulations.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Business Management; Logistics Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

**Pathway Capstone - Level II: Supply Chain Management Capstone**  
**7258 or 7258DC**

IDOE #7258

*SUP CH MGMT CAP Supply Chain Management Capstone course will build upon the knowledge and skills learned in previous courses by taking a deeper dive into Procurement, Operations Management, Lean Manufacturing Systems.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Business Management; Logistics Management; Supply Chain Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

**ENTREPRENEURSHIP**

**Principles - Level I: Principles of Entrepreneurship**  
**7154 or 7154DC**

IDOE #7154

*PRIN ENTR Principles of Entrepreneurship focuses on students learning about their own strengths, character and skills and how their unique abilities can apply to entrepreneurship, as well as how an entrepreneurial mindset can serve them regardless of their career path. Students will learn about the local, regional and state resources and will begin to understand and apply the entrepreneurial process. The course helps students to identify and evaluate business ideas while learning the steps and competencies required to launch a successful new venture. The course helps students apply what they have learned from the content when they write a Personal Vision Statement, a Business Concept Statement, and an Elevator Pitch.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

**CTE Concentrator A - Level I: New Venture Development**  
**7148 or 7148DC**

IDOE #7148

*ENT MAR MAN New Venture Development is targeted to students interested in creating and growing their own businesses. The course will focus on key marketing strategies particularly relevant for new ventures. Students will apply marketing concepts to entrepreneurial company challenges, which include creating and nurturing relationships with new customers, suppliers, distributors, employees and investors; and understand the special challenges and opportunities involved in developing marketing strategies "from the ground up."*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Entrepreneurship
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

**CTE Concentrator B - Level I: Small Business Operations**  
**7147 or 7147DC**

IDOE #7147

*ENT FIN MAN Small Business Operations will help students identify and evaluate the various sources available for funding a new enterprise; demonstrate an understanding of financial terminology; read, prepare, and analyze basic financial statements; estimating capital requirements and risk, exit strategies; and prepare a budget for their business, including taxes and personnel costs. In addition, the student should be able to explain the importance of working capital and cash management. The student should also be able to identify financing needs, and prepare sales forecasts.*

- Recommended Grade(s): 10, 11, 12

- Required Prerequisites: Principles of Entrepreneurship; New Venture Development
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **Pathway Capstone - Level II: Business Management Capstone**

**7201 or 7201DC**

IDOE #7201

*BUS MGMT CAP The Business Management Capstone is designed to provide any student with the Business Management skills necessary to run their own business or to serve in upper level management. Students will explore Management Theory, Accounting, and Business Law. The Business Management Capstone can be used with any career pathway except Business Administration. Completion of the course may allow students the opportunity to earn a CT or TC through ITCC.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Any CTE Business Concentrator Sequence except Business Administration
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**
- **Recommended Capstone course for Entrepreneurship, Insurance, and Marketing Programs of Study**

## **ACCOUNTING**

### **Principles - Level I: Principles of Business Management**

**5815 or 5815DC**

IDOE #4562

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

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Digital Applications and Responsibility
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator A - Level I: Accounting Fundamentals**

**4524 or 4524DC**

IDOE #4524

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

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Business Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective all diplomas**
- **Principles course is not required until the 24-25 school year because this course is included in Perkins V pathways.**
- **Formerly Introduction to Accounting**

## **CTE Concentrator B - Level I: Advanced Accounting**

**4522 or 4522DC**

IDOE #4522

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

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Business Management; Accounting Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

## **Pathway Capstone - Level II: Accounting Capstone**

**7252 or 7252DC**

IDOE #7252

*ACCT CAP The Accounting Capstone course will emphasize Managerial Accounting concepts and Income Tax Accounting for individuals and sole proprietorships. Topics include general versus cost accounting systems, cost behavior, cost-volume profit analysis, budgeting, standard cost systems, responsibility accounting, incremental analysis, and capital investment analysis. Offers an overview of federal and state income tax law for individuals including taxable income, capital gains and losses, adjustments, standard and itemized deductions, tax credits and appropriate tax forms. When offered for multiple credits per semester, the Accounting Capstone may be used to provide students the opportunity to participate in an intensive work-based learning experience and/or to complete additional coursework in using spreadsheets to solve accounting cases and to complete a postsecondary credential from ITCC or VU.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Business Management; Accounting Fundamentals; Advanced Accounting
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

## **FINANCE AND INVESTMENT**

### **Principles - Level I: Principles of Business Management**

**5815 or 5815DC**

IDOE #4562

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

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Digital Applications and Responsibility
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator A - Level I: Personal Finance and Banking**

**7150 or 7150DC**

*IDOE #7150*

*PERSON FIN/BNK Personal Finance and Banking emphasizes management of individual financial resources for growth and maintenance of personal wealth. Covers home buying and mortgage financing, installment financing, life and health insurance, securities, commodities and other investment opportunities. Students will gain an overview of the banking industry and the financial services provided by banks for individuals and businesses.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Business Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

### **CTE Concentrator A - Level I: Accounting Fundamentals**

**4524 or 4524DC**

*IDOE #4524*

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

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Business Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective all diplomas**
- **Principles course is not required until the 24-25 school year because this course is included in Perkins V pathways.**
- **Formerly Introduction to Accounting**

### **CTE Concentrator B - Level I: Finance and Investment**

**5258 or 5258DC**

*IDOE #5258*

*FIN INVEST Finance and Investments addresses the need of schools in areas that have workforce demand in the finance industry. It analyzes and synthesizes high-level skills needed for a multitude of careers in the banking and investment industry. Students learn banking, investments, and other finance fundamentals and applications related to financial institutions, business and personal financial services, investment and securities, risk management products, and corporate finance.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Business Management\*; Personal Finance and Banking or Accounting Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Formerly Banking and Investment Capstone; \*Principles course is not required until the 24-25 school year because this course is included in Perkins V pathways.**

### **Pathway Capstone - Level II: Finance and Investment Capstone**

**7265 or 7265DC**

*IDOE #7265*

*BANK INVEST The Finance and Investment Capstone course would include content on Credit and Collections, Real Estate, Business Law and possibly Accounting.*

- Recommended Grade(s): 12
- Required Prerequisites: Principles of Business Management; Personal Finance and Banking or Accounting Fundamentals; Finance and Investment

- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

## EDUCATION AND TRAINING

### EDUCATION PROFESSIONS

#### Principles - Level I: Principles of Teaching

**7161 or 7161DC**

IDOE #7161

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

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

#### CTE Concentrator A - Level I: Child and Adolescent Development

**7157 or 7157DC**

IDOE #7157

*CHLD ADL DEV* Child and Adolescent Development examines the physical, social, emotional, cognitive, and moral development of the child from birth through adolescence with a focus on the middle years through adolescence. Basic theories of child development, biological and environmental foundations of development, and the study of children through observation and interviewing techniques are explored. The influence of parents, peers, the school environment, culture and the media are discussed. An observation experience up to 20 hours may be required for completion of this course. This course has been approved to be offered for dual credit. Students pursuing this course for dual credit are still required to meet the minimum prerequisites for the course and pass the course with a C or better in order for dual credit to be awarded.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Teaching
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

#### CTE Concentrator B - Level I: Teaching and Learning

**7162 or 7162DC**

IDOE #7162

*TEACH LRN* Teaching and Learning provides students the opportunity to apply many of the concepts that they have learned throughout the Education Professions pathway. In addition to a focus on best practices, this course will provide an introduction to the role that technology plays in the modern classroom. Through hands-on experience with educational software, utility packages, and commonly used microcomputer hardware, students will analyze ways to integrate technology as a tool for instruction, evaluation, and management.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Teaching
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**



## **Pathway Capstone - Level II: Education Professions Capstone**

**7267 or 7267DC**

IDOE #7267

*ED PROF CAP The Education Professions Capstone provides an extended opportunity for field experience to further apply concepts that have been presented throughout the pathway. Students will also have the opportunity to explore the topics of the exceptional child and literacy development through children's literature. Students will gain a deeper understanding of inclusive teaching techniques along with policies, theories, and laws related to special education. Students interested in pursuing a career in Elementary Education are encouraged to also study the benefits of using children's literature in the classroom. This course may be further developed to include specific content for students interested in pursuing a career in secondary education. The course should include a significant classroom observation and assisting experience.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Teaching; Child and Adolescent Development, Teaching and Learning
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

## **EARLY CHILDHOOD**

### **Principles - Level I: Principles of Early Childhood Education**

**7160 or 7160DC**

IDOE #7160

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

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator A - Level I: Early Childhood Education Curriculum**

**7158 or 7158DC**

IDOE #7158

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

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Early Childhood Education
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator B - Level I: Early Childhood Education Guidance**

**7159 or 7159DC**

IDOE #7159

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



- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Early Childhood Education
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

**Pathway Capstone - Level II: Early Childhood Education Capstone**  
**7259 or 7259DC**

IDOE #7259

*ERLY CHILD CAP This course will prepare students to complete the application, CDA exam, and verification process for the Child Development Associate (CDA) credential. Students may also study the physical, social, emotional, cognitive, and moral development of children from conception to age twelve. Theories of child development, biological and environmental foundations, prenatal development, the birth process, and the newborn baby will be discussed. Additionally, students will explore the aspects of early literacy skill development in young children from birth through third grade. Students will explore techniques, technological tools and other learning opportunities that encourage positive attitudes in children regarding listening, speaking, reading and writing activities. In the course, students will research, examine and explore the use of observation in screening and assessment to promote healthy literacy development in early childhood education. Finally, students will be provided an introduction to caring for each exceptional child. This includes theories and practices for producing optimal developmental growth. Students may be required to complete observations and field experiences with children as related to this course.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Early Childhood Education; Early Childhood Curriculum; Early Childhood Guidance
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diploma**

## HEALTH SCIENCES

### BIOMEDICAL SCIENCES AND TECHNOLOGY

**Principles - Level I: Principles of Biomedical Sciences**  
**7857 or 7857DC**

IDOE #5218

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

- Recommended Grade(s): 9
- Required Prerequisites: Biology I or concurrent enrollment in Biology I is required
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

- **Fulfills a science requirement for all diplomas**

### **CTE Concentrator A - Level I: Human Body Systems**

**7862 or 7862DC**

IDOE #5216

*HUMAN SYST Human Body Systems is a course designed to engage students in the study of basic human physiology and the care and maintenance required to support the complex systems. Using a focus on human health, students will employ a variety of monitors to examine body systems (respiratory, circulatory, and nervous) at rest and under stress, and observe the interactions between the various body systems. Students will use appropriate software to design and build systems to monitor body functions. NOTE: This course aligns with the PLTW Human Body Systems curriculum. Use of the PLTW Curriculum may require additional training and membership in the PLTW network.*

- Recommended Grade(s): 10
- Required Prerequisites: Principles of Biomedical Sciences
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a science requirement for all diplomas**

### **CTE Concentrator A - Level I: ANATOMY & PHYSIOLOGY**

**4023**

IDOE #5276

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

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Biology
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a science course requirement for all diplomas**

### **CTE Concentrator B - Level I: Medical Interventions**

**7865 or 7865DC**

IDOE #5217

*MED INTERV Medical Interventions is a course that studies medical practices including interventions to support humans in treating disease and maintaining health. Using a project-based learning approach, students will investigate various medical interventions that extend and improve quality of life, including gene therapy, pharmacology, surgery, prosthetics, rehabilitation, and supportive care. Students will also study the design and development of various interventions. Lessons will cover the history of organ transplants and gene therapy with additional readings from current scientific literature addressing cutting edge developments. NOTE: This course aligns with the PLTW Medical Interventions curriculum. Use of the PLTW Curriculum may require additional training and membership in the PLTW network.*

- Recommended Grade(s): 11
- Required Prerequisites: Principles of Biomedical Sciences
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a science requirement for all diploma types**

## **Pathway Capstone - Level II: Biomedical Innovations**

**7866 or 7866DC**

IDOE #5219

*BIO INN Biomedical Innovation is a capstone course designed to give students the opportunity to design innovative solutions for the health challenges of the 21st Century as they work through progressively challenging open-ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering, and public health. Students have the opportunity to work on an independent project and may work with a mentor or advisor from a healthcare or postsecondary industry. Throughout the course, students are expected to present their work to an adult audience that may include representatives from the local business and healthcare community. NOTE: This course aligns with the PLTW Biomedical Innovations curriculum. Use of the PLTW Curriculum may require additional training and membership in the PLTW network.*

- Recommended Grade(s): 12
- Required Prerequisites: Principles of Biomedical Sciences; Human Body Systems or Anatomy and Physiology; Medical Interventions
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

## **Pathway Capstone - Level II: Healthcare Specialist Capstone**

**7255 or 7255DC**

IDOE #7255

*HC SPEC CAP The capstone course will assist Healthcare students to acquire additional knowledge and skills necessary to work in a variety of health care settings beyond a long term care facility, including hospitals, doctor's offices and clinics. Students can accomplish this goal by completing coursework that will cover topics such as Medical Law and Ethics, Electronic Health Records, and/or Behavioral Health. Schools may offer additional healthcare certifications such as the Certified Clinical Medical Assistant or Phlebotomy along with the coursework or in place of the coursework.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Healthcare; Medical Terminology; Healthcare Specialist: CNA, EMT or Certified Clinical Medical Assistant (CCMA)
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- **Counts as a Directed Elective or Elective for all diplomas**

## **DENTAL CAREERS**

### **Principles - Level I: Principles of Dental Careers**

**7315 or 7315DC**

IDOE #7315

*PRIN DENT CAR Principles of Dental Careers will provide the foundational knowledge and skills necessary to pursue a career in the Dental Field. A focus will be placed on the role of the modern dental assistant and will cover key pre-clinical procedures and beginning dental terminology.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

### **CTE Concentrator A - Level I: Dental Careers Fundamentals**

**7316 or 7316DC**

IDOE #7316

*DENT CAR FUND Dental Careers Fundamentals will build upon the knowledge and skills in the principles course. Students will understand and practice beginning chairside functions of the Dental Assistant along with a focus on the Anatomy and Physiology of the head, neck and oral cavity. Students will also study tooth anatomy,*

*physiology and morphology. This part of the program will prepare students for the Anatomy, Morphology, and Physiology exam of the NELDA certification.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Dental Careers
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

### **CTE Concentrator B - Level I: Advanced Dental Careers**

**7317 or 7317DC**

*IDOE #7317*

*ADV DENT CAR Advanced Dental Careers Fundamentals will build upon the knowledge and skills developed in the first two courses. Students will study more advanced chairside assisting functions along with advanced infection control techniques. Additionally students will explore preventive dentistry practices and dental emergencies. This course will prepare students for the ICE exam of the NELDA certification.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Dental Careers; Dental Careers Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

### **Pathway Capstone - Level II: Dental Careers Capstone**

**7318 or 7318DC**

*IDOE #7318*

*DENT CAR CAP Dental Careers capstone will provide the opportunity for increased skill development in clinical support through work-based learning experiences. Students will also prepare for the Radiation, Health and Safety which is the third and final part of the NELDA certification. The capstone course may also provide the opportunity to review and prepare for the entire NELDA certification.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Dental Careers; Dental Careers Fundamentals; Advanced Dental Careers
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

## **EMERGENCY MEDICAL SERVICES**

### **Principles - Level I: Principles of Health Care**

**7168 or 7168DC**

*IDOE #7168*

*PRIN HLCR Principles of Healthcare content includes skills common to specific health career topics such as patient nursing care, dental care, animal care, medical laboratory, public health, and an introduction to healthcare systems. Lab experiences are organized and planned around the activities associated with the student's career objectives.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator A - Level I: Medical Terminology**

**5274 or 5274DC**

*IDOE #5274*

*MED TERMS Medical Terminology prepares students with language skills necessary for effective, independent use of health and medical reference materials. It includes the study of health and medical abbreviations, symbols,*

and Greek and Latin word part meanings, all taught within the context of body systems. This course builds skills in pronouncing, spelling, and defining new words encountered in verbal and written information in the healthcare industry. Students have the opportunity to acquire essential skills for accurate and logical communication, and interpretation of medical records. Emphasis is on forming a foundation of a medical vocabulary including; appropriate and accurate meaning, spelling, and pronunciation of medical terms, and abbreviations, signs, and symbols.

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, maximum of 2 credits
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator B - Level I: Emergency Medical Tech**

**7165 or 7165DC**

IDOE #7165

*EMT This course is based on the training program developed by the Department of Transportation and the Emergency Medical Services Commission of Indiana. It covers theories, techniques and operational aspects of pre-hospital emergency care within the scope and responsibility of the emergency medical technician (EMT). It requires laboratory practice and clinical observation in a hospital emergency room and ambulance. Successful completion of the course meets national requirements to test for certification as an NREMT.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Healthcare; and Medical Terminology
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Schools are strongly encouraged to offer the EMT course along with Principles of Healthcare and Medical Terminology as part of a 3 period block of time**

### **Pathway Capstone - Level II: Healthcare Specialist Capstone**

**7255 or 7255DC**

IDOE #7255

*HC SPEC CAP The capstone course will assist Healthcare students to acquire additional knowledge and skills necessary to work in a variety of health care settings beyond a long term care facility, including hospitals, doctor's offices and clinics. Students can accomplish this goal by completing coursework that will cover topics such as Medical Law and Ethics, Electronic Health Records, and/or Behavioral Health. Schools may offer additional healthcare certifications such as the Certified Clinical Medical Assistant or Phlebotomy along with the coursework or in place of the coursework.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Healthcare; Medical Terminology; Healthcare Specialist: CNA, EMT or Certified Clinical Medical Assistant (CCMA)
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- **Counts as a Directed Elective or Elective for all diplomas**

## **MEDICAL ASSISTANT**

### **Principles - Level I: Principles of Health Care**

**7168 or 7168DC**

IDOE #7168

*PRIN HLCR Principles of Healthcare content includes skills common to specific health career topics such as patient nursing care, dental care, animal care, medical laboratory, public health, and an introduction to healthcare systems. Lab experiences are organized and planned around the activities associated with the student's career objectives.*

- Recommended Grade(s): 9, 10, 11



- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator A - Level I: Medical Terminology**

**5274 or 5274DC**

IDOE #5274

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

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, maximum of 2 credits
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator B - Level I: Certified Clinical Medical Assistance (CCMA)**

**7164 or 7164DC**

IDOE #7164

*CERT CL MED AST The Certified Clinical Medical Assistant course will prepare students for the National Healthcare Association CCMA exam. Instruction includes taking and recording vital signs, preparing patients for examination, patient education, and assisting the physician during the exam. The collecting and preparation of laboratory specimens and basic laboratory tests will be covered. Prepares for the administration of medication, venipuncture, ECG, and wound care. Provides a basic understanding of the clinical and administrative duties and responsibilities pertinent to medical offices. Includes instruction in medical correspondence and records, case histories of patients, filing, telephone procedures, appointment scheduling, receptionist duties, and processing mail. Written, verbal and nonverbal communications according to patient needs are covered as well as documentation and associated legal and ethical boundaries.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Healthcare; Medical Terminology
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Schools are strongly encouraged to offer the CCMA course along with Principles of Healthcare and Medical Terminology as part of a 3 period block of time.**

### **Pathway Capstone - Level II: Healthcare Specialist Capstone**

**7255 or 7255DC**

IDOE #7255

*HC SPEC CAP The capstone course will assist Healthcare students to acquire additional knowledge and skills necessary to work in a variety of health care settings beyond a long term care facility, including hospitals, doctor's offices and clinics. Students can accomplish this goal by completing coursework that will cover topics such as Medical Law and Ethics, Electronic Health Records, and/or Behavioral Health. Schools may offer additional healthcare certifications such as the Certified Clinical Medical Assistant or Phlebotomy along with the coursework or in place of the coursework.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Healthcare; Medical Terminology; Healthcare Specialist: CNA, EMT or Certified Clinical Medical Assistant (CCMA)



- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- **Counts as a Directed Elective or Elective for all diplomas**

## PRE-NURSING

### Principles - Level I: Principles of Health Care

**7168 or 7168DC**

IDOE #7168

*PRIN HLCR Principles of Healthcare content includes skills common to specific health career topics such as patient nursing care, dental care, animal care, medical laboratory, public health, and an introduction to healthcare systems. Lab experiences are organized and planned around the activities associated with the student's career objectives.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### CTE Concentrator A - Level I: Medical Terminology

**5274 or 5274DC**

IDOE #5274

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

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, maximum of 2 credits
- **Counts as a directed elective or elective for all diplomas**

### CTE Concentrator B - Level I: Healthcare Specialist: CNA

**7166 or 7166DC**

IDOE #7166

*HC SPEC CNA The Healthcare Specialist: CNA prepares individuals desiring to work as nursing assistants with the knowledge, skills and attitudes essential for providing basic care in extended care facilities, hospitals and home health agencies under the direction of licensed nurses. The course will introduce students to the disease process and aspects of caring for a long-term care resident with dementia. Individuals who successfully complete this course are eligible to apply to sit for the Indiana State Department of Health (ISDH) certification exam for nursing assistants. This course meets the minimum standards set forth by the ISDH for Certified Nursing Assistant training and for health care workers in long-term care facilities.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Healthcare
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

## **Pathway Capstone - Level II: Healthcare Specialist Capstone**

**7255 or 7255DC**

IDOE #7255

*HC SPEC CAP The capstone course will assist Healthcare students to acquire additional knowledge and skills necessary to work in a variety of health care settings beyond a long term care facility, including hospitals, doctor's offices and clinics. Students can accomplish this goal by completing coursework that will cover topics such as Medical Law and Ethics, Electronic Health Records, and/or Behavioral Health. Schools may offer additional healthcare certifications such as the Certified Clinical Medical Assistant or Phlebotomy along with the coursework or in place of the coursework.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Healthcare; Medical Terminology; Healthcare Specialist: CNA, EMT or Certified Clinical Medical Assistant (CCMA)
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- **Counts as a Directed Elective or Elective for all diplomas**

## **CENTRAL SERVICE TECH / SURGICAL TECHNICIAN**

### **Principles - Level I: Principles of Health Care**

**7168 or 7168DC**

IDOE #7168

*PRIN HLCR Principles of Healthcare content includes skills common to specific health career topics such as patient nursing care, dental care, animal care, medical laboratory, public health, and an introduction to healthcare systems. Lab experiences are organized and planned around the activities associated with the student's career objectives.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator A - Level I: Medical Terminology**

**5274 or 5274DC**

IDOE #5274

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

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, maximum of 2 credits
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator B - Level I: Central Service Technician Fundamentals**

**7163 or 7163DC**

IDOE #7163

*CEN SER TEC FUN This course introduces students to the field of central service and prepares students to identify surgical instruments by category type and use. Students will learn the principles and importance of the flow of material along with the environmental control factors affecting the central service department. The student will differentiate between equipment management systems and compare out-sourcing and insourcing.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Healthcare
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, maximum of 2 credits
- **Counts as a directed elective or elective for all diplomas**

### **Pathway Capstone - Level II: Central Service Technician Capstone**

**7257 or 7257DC**

*IDOE #7257*

CENT SRV TECH CAP Central Services Technician Capstone course emphasizes the practice of sterilization skills that have been learned in previous courses. Students will focus on high and low sterilization methods. Students will differentiate between the various sterilization methods. Students will learn the protocol for control infection and the spread of blood borne pathogens. Additionally, this course will provide students the opportunity to complete practical hours toward the hours required to complete the International Association of Healthcare Central Services Material Management Certification Exam.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Healthcare, Medical Terminology, Central Service Technician Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum

## **PHARMACY**

### **Principles - Level I: Principles of Health Care**

**7168 or 7168DC**

*IDOE #7168*

*PRIN HLCR Principles of Healthcare content includes skills common to specific health career topics such as patient nursing care, dental care, animal care, medical laboratory, public health, and an introduction to healthcare systems. Lab experiences are organized and planned around the activities associated with the student's career objectives.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator A - Level I: Medical Terminology**

**5274 or 5274DC**

*IDOE #5274*

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

- Recommended Grade(s): 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, maximum of 2 credits
- **Counts as a directed elective or elective for all diplomas**

## **CTE Concentrator B - Level I: Pharmacy Tech**

**7167 or 7167DC**

IDOE #7167

*PHARM TECH* This course introduces the student to the foundational principles, career concepts, and entry level skills and duties typically performed by a pharmacy technician in community/retail, hospital/health system, and other pharmacy practice settings. Classroom and lab activities provide opportunities for demonstration of knowledge, understanding, and proficiency in technical and customer service applications related to the role and scope of practice of a pharmacy technician. Essential pharmacy calculations are presented with emphasis on the development of problem-solving skills for safe pharmacy practices.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Healthcare
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

## **Pathway Capstone - Level II: Pharmacy Capstone**

**7310 or 7310DC**

IDOE #7310

*PHARM TECH CAP* The Pharmacy Capstone courses builds upon the foundational knowledge learned in the Pharmacy Tech course. In addition to advanced pharmacology and dispensing labs, students will also explore Pharmacy law and ethics. Time is built into the capstone course to allow students to complete their practicum as well.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Healthcare; Medical Terminology; Pharmacy Tech
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

## **EXERCISE SCIENCE**

### **Principles - Level I: Principles of Exercise Science**

**7320 or 7320DC**

IDOE #7320

*PRIN EXER SCI* Principles of Exercise Science provides an introduction to the science of exercise and human movement. Special topics include exercise physiology, sport biomechanics, sports medicine, and motor integration. Additionally, the course will examine career options in sport, health and wellness, education, and the medical fields like personal trainer, athletic training and physical therapy.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

### **CTE Concentrator A - Level I: Kinesiology**

**9033 or 9033DC**

IDOE #7321

*KINESIO* Kinesiology will study fundamental concepts concerning the interaction of biological and mechanical aspects of the musculoskeletal and neuromuscular structures. An emphasis on practical applications of the concepts will be accomplished through an introduction to fitness training methods and modalities for developing specific conditioning effects in individuals. Laboratory sessions focus on anatomy and physiology of the musculoskeletal system and cardiovascular system, theories on fitness programming, and injury avoidance in fitness environments.

- Recommended Grade(s): 10, 11, 12

- Required Prerequisites: Principles of Exercise Science
- Recommended Prerequisites: Anatomy and Physiology
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

### **CTE Concentrator B - Level I: Human Performance**

**9044 or 9044DC**

IDOE #7322

*HUM PERF Students will learn basic human physiology relating to exercise, and how the body adapts to acute and chronic physical activity. Systems covered include cellular metabolic processes, energy systems, and the effects of exercise on the respiratory, nervous, cardiovascular, endocrine, skeletal, and muscular systems. The course will also study the basic nutritional principles needed for optimal athletic and human performance.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Exercise Science
- Recommended Prerequisites: Kinesiology
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

### **Pathway Capstone - Level II: Physical Therapy Capstone**

**9055 or 9055DC**

IDOE #7323

*PHYS THER CAP The Physical Therapy Capstone course is designed to provide students the opportunity to explore the role of a physical therapy assistant and to practice technical skills previously learned in the classroom. It prepares students with the knowledge, skills and attitudes essential for providing basic care in extended care facilities, hospitals and home health agencies under the direction of licensed Physical Therapists. In addition students will learn skills specific to physical therapy including observing patients progress, helping patients do specific exercises, using massage and stretching for treatment, aiding patients with devices for movement, educating patients and families, as well as basic assisting in cleaning treatment areas and clerical work.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Exercise Science; Kinesiology; Human Performance; or Any Healthcare Specialist CTE Concentrator Sequence EMT, CNA, CCMA
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

### **Pathway Capstone - Level II: Fitness Management Capstone**

**73241DC or 73242DC**

IDOE #7324

*The Fitness Management Capstone course will focus on the knowledge and skills needed to be a personal trainer. This course will focus on the fundamental concepts in personal training for healthy, general populations including topics of group fitness instruction and the principles and skills involved in the management within the the health and fitness industry.*

- **Recommended Grade(s): 11, 12**
- **Required Prerequisites: Principles of Exercise Science; Kinesiology; Human Performance**
- **Recommended Prerequisites: none**
- **Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum**
- **Counts as a Directed Elective or Elective for all diplomas**

## HOSPITALITY AND TOURISM

### CULINARY ARTS (Culinary Capstone)

#### Principles - Level I: Principles of Culinary and Hospitality

7173 or 7173DC

IDOE #7235

*PRIN HOSP Principles of Culinary and Hospitality is designed to develop an understanding of the hospitality industry and career opportunities, and responsibilities in the food service and lodging industry. Introduces procedures for decision making which affects operation management, products, labor, and revenue. Additionally, students will learn the fundamentals of food preparation, basic principles of sanitation, service procedures, and safety practices in the food service industry including proper operation techniques for equipment.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

#### CTE Concentrator A - Level I: Nutrition

7171 or 7171DC

IDOE #7171

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

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Culinary and Hospitality
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

#### CTE Concentrator B - Level I: Culinary Arts

7169 or 7169DC

IDOE #7169

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

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Culinary and Hospitality
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

#### Pathway Capstone - Level II: Culinary Arts Capstone

9066 or 9066DC

IDOE #7233

*CUL ARTS CAP This course covers the techniques and skills needed in breakfast cookery as well as insight into the pantry department. Various methods of preparation of eggs, pancakes, waffles and cereals will be discussed. Students will receive instruction in salad preparation, salad dressing, hot and cold sandwich preparation, garnishes and appetizers. This course also covers the necessary skills for proper recruiting, staffing, training, and management of employees at various levels. The course will help prepare the student for the transition from*



employee to supervisor. Additionally, it will help the student evaluate styles of leadership, and develop skills in human relations and personnel management.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Culinary and Hospitality; Nutrition; Culinary Arts
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- **Counts as a Directed Elective or Elective for all diplomas**

## **CULINARY ARTS (Pastry Capstone)**

### **Principles - Level I: Principles of Culinary and Hospitality**

**7173 or 7173DC**

IDOE #7173

*PRIN HOSP Principles of Culinary and Hospitality is designed to develop an understanding of the hospitality industry and career opportunities, and responsibilities in the food service and lodging industry. Introduces procedures for decision making which affects operation management, products, labor, and revenue. Additionally, students will learn the fundamentals of food preparation, basic principles of sanitation, service procedures, and safety practices in the food service industry including proper operation techniques for equipment.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator A - Level I: Nutrition**

**7171 or 7171DC**

IDOE #7171

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

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Culinary and Hospitality
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator B - Level I: Culinary Arts**

**7169 or 7169DC**

IDOE #7169

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

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Culinary and Hospitality
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

**Pathway Capstone - Level II: Baking and Pastry Capstone**  
**7235 or 7235DC**

IDOE #7235

*BAKE PSTRY CAP* The objective of this course is to help students understand the science of baking and the different reactions that take place based on the ingredients, temperatures, and equipment in relation to the final product. The course requires students to produce and finish a variety of cakes. The course emphasizes application techniques, color coordination, and the flavor and texture of fillings. Students will practice the techniques of basic cake decorating. This course will also address classical French and European desserts, including the preparation of goods such as Napoleons, Gateau St. Honoré, petit fours and petit fours sec, ganaches, pastry creams and fillings, sauces, flans and tarts, and European sponges. The course also includes instruction in tempering of chocolates, molding, and chocolate plastique, preparation of truffles, pastillage and marzipan, short doughs, and meringues. The student will be instructed in the latest preparation methods, innovative ideas for impressive plate presentations, and techniques that utilize specialized equipment and tools to make high-tech, novel creations

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Culinary and Hospitality; Nutrition; Culinary Arts
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- **Counts as a Directed Elective or Elective for all diplomas**

**HOSPITALITY MANAGEMENT**

**Principles - Level I: Principles of Culinary and Hospitality**  
**7173 or 7173DC**

IDOE #7173

*PRIN HOSP* Principles of Culinary and Hospitality is designed to develop an understanding of the hospitality industry and career opportunities, and responsibilities in the food service and lodging industry. Introduces procedures for decision making which affects operation management, products, labor, and revenue. Additionally, students will learn the fundamentals of food preparation, basic principles of sanitation, service procedures, and safety practices in the food service industry including proper operation techniques for equipment.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

**CTE Concentrator A - Level I: Nutrition**  
**7171 or 7171DC**

IDOE #7171

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

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Culinary and Hospitality
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

**CTE Concentrator B - Level I: Hospitality Management**  
**7172 or 7172DC**

IDOE #7172

*HOSP MAN* Hospitality Management prepares students for employment in the hospitality industry. It provides the foundations for study in higher education that leads to a full spectrum of hospitality careers. This is a

*broad-based course that introduces students to all segments of hospitality, what it includes, and career opportunities that are available; provides a survey of management functions, highlighting basic theories and facts; and exposes students to current trends and current events within the industry. Three major goals of this course are for students to be able to identify current trends in hotel and restaurant management, distinguish the difference between hospitality and tourism, and state differences in front of the house versus back of the house.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Culinary and Hospitality
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **Pathway Capstone - Level II: Hospitality Management Capstone**

**7237 or 7237DC**

IDOE #7237

*HOSP MGMT CAP This course presents the essentials of effective food and beverage control while establishing systems for sale values of food and beverages that are outlined. This course addresses the application of the four-step control process to the primary phases of foodservice operations: purchasing, receiving, storing, issuing and production. Labor costs and sales forecasting are analyzed. This course is also an opportunity for the Intermediate Hospitality student to acquire valuable field experience by working with Hospitality Manager supervision. The student keeps a journal and prepares a report of their experience at the end of the course.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Culinary and Hospitality; Nutrition; Hospitality Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- **Counts as a Directed Elective or Elective for all diplomas**

## **HUMAN SERVICES**

### **COSMETOLOGY**

#### **Principles - Level I: Principles of Barbering and Cosmetology**

**7330 or 7330DC**

IDOE #7330

*PRIN COSMO Principles of Cosmetology offers an introduction to cosmetology with emphasis on basic practical skills and theories including roller control, quick styling, shampooing, hair coloring, permanent waving, facials, manicuring, business and personal ethics, and bacteriology and sanitation. Successful completion of the course requires at least 375 Cosmetology studio hours.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**
- **This course may require extended hours of participation in order to meet the 1500 hours required for the Cosmetology and Barbering exams.**

#### **CTE Concentrator A - Level I: Barbering and Cosmetology Fundamentals**

**7331 or 7331DC**

IDOE #7331

*STY COSMO Barbering and Cosmetology Fundamentals focuses on the development of practical skills introduced in Principles of Cosmetology. Clinical application and theory in the science of cosmetology are introduced. Successful completion of the course requires at least 375 Cosmetology studio hours.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Barbering and Cosmetology
- Recommended Prerequisites: none

- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**
- **This course may require extended hours of participation in order to meet the 1500 hours required for the Cosmetology and Barbering exams.**

### **CTE Concentrator B - Level I: Advanced Cosmetology**

**7332 or 7332DC**

*IDOE #7332*

*ADV COSMO Advanced Cosmetology will emphasize the development of advanced skills in styling, hair coloring, permanent waving, facials and manicuring. Students will also study anatomy and physiology as it applies to cosmetology. Successful completion of the course requires at least 375 Cosmetology studio hours.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Barbering and Cosmetology; Barbering and Cosmetology Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**
- **This course may require extended hours of participation in order to meet the 1500 hours required for the Cosmetology and Barbering exams.**

### **CTE Concentrator B - Level I: Advanced Barbering**

**7333; 73332 or 7333DC; 73332DC**

*IDOE #7333*

*Advanced Barbering is a course with a focus particularly on barbering styles and techniques. The emphasis will be toward the development of advanced skills in styling, hair coloring, permanent waving, facials and facial hair care. Students will also study anatomy and physiology as it applies to cosmetology. Upon completion of the course requirements, the students will be able to Perform basic manipulative skills including haircutting, hairstyling, perming, shaving, treatment of the skin and scalp, salon management, license laws, sanitation and retain knowledge relating to the history of barbering. Successful completion of the course requires at least 375 Cosmetology studio hours.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Barbering and Cosmetology; Barbering and Cosmetology Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

### **Pathway Capstone - Level II: Barbering and Cosmetology Capstone**

**7334 or 7334DC**

*IDOE #7334*

*COSMO CAP Barbering and Cosmetology Capstone builds and improves previously developed skills with emphasis on developing individual techniques. Professionalism, shop management, psychology in relation to cosmetology, and preparation for state board examination are stressed. Successful completion of the course requires at least 375 Cosmetology studio hours.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Barbering and Cosmetology; Barbering and Cosmetology Fundamentals; Advanced Cosmetology or Advanced Barbering
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**
- **This course may require extended hours of participation in order to meet the 1500 hours required for the Cosmetology and Barbering exams.**

## HUMAN AND SOCIAL SERVICES

### Principles - Level I: Principles of Human Services

**7176 or 7176DC**

*IDOE #7176*

PRIN HUM SERV Principles of Human Services explores the history of human services, career opportunities, and the role of the human service worker. Focuses on target populations and community agencies designed to meet the needs of various populations. The course includes a required job shadowing project in a Human Services setting (a suggested four-hour minimum to meet Ivy Tech requirements). This course will also encourage cultural awareness and appreciation of diversity. Focuses on cultural variations in attitudes, values, language, gestures, and customs. Includes information about major racial and ethnic groups in the United States.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### CTE Concentrator A - Level I: Understanding Diversity

**7174 or 7174DC**

*IDOE #7174*

DIS SERV Understanding Diversity encourages cultural awareness and appreciation of diversity. Focuses on cultural variations in attitudes, values, language, gestures, and customs. Includes information about major racial and ethnic groups in the United States.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Human Services
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### CTE Concentrator B - Level I: Relationships and Emotions

**7177 or 7177DC**

*IDOE #7177*

REL EMO Relationship & Emotions examines the key elements of healthy relationships. Explores the main problems that damage relationships. Presents research findings on successful and unsuccessful relationships, and emotional connections. Explores the impact of one's emotional and relationship history on current and future romantic relationships. Presents practical, scientific-based skills for improving relationships. Additionally, this course offers practical and useful information for people who have experienced loss. Students have the opportunity to evaluate their own experiences and attitudes toward loss and grief.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Human Services
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### Pathway Capstone - Level II: Human Services Capstone

**7241 or 7241DC**

*IDOE #7241*

HUM SRV CAP This course provides opportunities to increase effectiveness in helping people. Examines the helping process in terms of skills, helping stages, and issues involved in a helping relationship. This course also introduces and develops basic interviewing skills. Includes assessment strategies and treatment planning. This course provides basic information about the problems of alcohol and other drug abuse. Explores symptoms and effects of abuse and dependence on individuals, families, and society. Additionally, this course studies group dynamics, issues and behavior. Includes group functioning and leadership, guidelines on working effectively with a co leader, and practical ways of evaluating the group processes. It provides an overview of legal and ethical

aspects in the field of human services with implications for the human service worker. Includes topics such as confidentiality, rights of clients, client records, equal protection for staff and clients, and discrimination. The Human Service Ethical Code and related codes are covered with an overview of ethical dimensions of practice.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Relationships & Emotions; Understanding Diversity
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- **Counts as a Directed Elective or Elective for all diplomas**

## INFORMATION TECHNOLOGY

### INFORMATION TECHNOLOGY OPERATIONS (Cybersecurity Capstone)

#### Principles - Level I: Principles of Computing

**7183 or 7183DC**

IDOE #7183

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

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Computer Science; Completed or Co-Enrolled in Algebra I
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

#### CTE Concentrator A - Level I: Information Technology Fundamentals

**7180 or 7180DC**

IDOE #7180

*INFO TECH FUN Information Technology Fundamentals provides the necessary competencies required for an entry-level Information Technology professional. Students will have the knowledge required to assemble components based on customer requirements, install, configure and maintain devices/software for end users, understand the basics of networking and security, properly and safely diagnose, resolve and document common hardware and software issues while applying troubleshooting skills. Students will also learn appropriate customer support, understand the basics of virtualization, desktop imaging, and deployment. This course should also prepare students for the CompTia A+ Certification Exam.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Computing
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

#### CTE Concentrator B - Level I: Networking and Cybersecurity Operations

**7181 or 7181DC**

IDOE #7181

*INFO TEC SUP SER Advanced Information Technology will provide students with the fundamental concepts in networking and cybersecurity. Students are introduced to the principles and concepts of computer networking, covering the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. Students will be able to troubleshoot routers and switches and resolve common issues. The students will also explore the field of Cyber Security/Information Assurance focusing on the technical and managerial aspects of the discipline. Students will be introduced to the basic terminology, concepts, and best practices of computer/network security and the roles and responsibilities of*



management/security personnel. The students will learn the technologies used and techniques involved in creating a secure computer networking environment including authentication and the types of attacks against an organization.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Computing; Information Technology Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **Pathway Capstone - Level II: IT Operations: Cybersecurity Operations Capstone 7249 or 7249DC**

IDOE #7249

*CYBER OPER CAP Cybersecurity Operations Capstone course introduces the core security concepts and skills needed to monitor, detect, analyze and respond to cybercrime, cyberespionage, insider threats, advanced persistent threats, regulatory requirements, and other cybersecurity issues facing organizations. It emphasizes the practical application of the skills needed to maintain and ensure security operational readiness of secure networked systems through an in-depth coverage of network protocols and ethical hacking. Through hands-on instruction students will be prepared to interact with TCP/IP on the vast majority of networks in use today and learn threats and defense mechanisms. The skills developed in the curriculum prepares students for a career in the rapidly growing area of cybersecurity operations.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Computing; Information Technology Fundamentals; Networking and Cybersecurity Operations
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

## **INFORMATION TECHNOLOGY OPERATIONS (IT Support Capstone)**

### **Principles - Level I: Principles of Computing**

**7183 or 7183DC**

IDOE #7183

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

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Computer Science; Completed or Co-Enrolled in Algebra I
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator A - Level I: Information Technology Fundamentals**

**7180 or 7180DC**

IDOE #7180

*INFO TECH FUN Information Technology Fundamentals provides the necessary competencies required for an entry-level Information Technology professional. Students will have the knowledge required to assemble components based on customer requirements, install, configure and maintain devices/software for end users, understand the basics of networking and security, properly and safely diagnose, resolve and document common hardware and software issues while applying troubleshooting skills. Students will also learn appropriate*

customer support, understand the basics of virtualization, desktop imaging, and deployment. This course should also prepare students for the CompTia A+ Certification Exam.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Computing
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator B - Level I: Networking and Cybersecurity Operations**

**7181 or 7181DC**

IDOE #7181

*INFO TEC SUP SER Advanced Information Technology will provide students with the fundamental concepts in networking and cybersecurity. Students are introduced to the principles and concepts of computer networking, covering the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. Students will be able to troubleshoot routers and switches and resolve common issues. The students will also explore the field of Cyber Security/Information Assurance focusing on the technical and managerial aspects of the discipline. Students will be introduced to the basic terminology, concepts, and best practices of computer/network security and the roles and responsibilities of management/security personnel. The students will learn the technologies used and techniques involved in creating a secure computer networking environment including authentication and the types of attacks against an organization.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Computing; Information Technology Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **Pathway Capstone - Level II: IT Operations: IT Support Capstone**

**7245 or 7245DC**

IDOE #7245

*IT SUPP CAP IT Support Capstone students will acquire the skills and knowledge needed to provide tier 1 technical support services. The student will learn troubleshooting and problem solving in working with end users using various digital tools such as helpdesk software, knowledge bases, ticket management systems, and other tier 1 computer related support services. Students will also learn to implement, administer, and troubleshoot Information systems using the Microsoft Windows clients and servers in an enterprise environment. Students will be introduced to managing applications, files, folders, and devices in a Windows active directory environment. Additionally students have the chance to understand and apply Linux and Virtualization concepts.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Computing; Information Technology Fundamentals; Networking and Cybersecurity Operations
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

## **NETWORKING**

### **Principles - Level I: Principles of Computing**

**7183 or 7183DC**

IDOE #7183

*PRIN COMP INFO Principles of Computing provides students the opportunity to explore how computers can be used in a wide variety of settings. The course will begin by exploring trends of computing and the necessary skills to implement information systems. Topics include operating systems, database technology, cybersecurity, cloud implementations and other concepts associated with applying the principles of good information management to*

the organization. Students will also have the opportunity to utilize basic programming skills to develop scripts designed to solve problems. Students will learn about algorithms, logic development and flowcharting.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Computer Science; Completed or Co-Enrolled in Algebra I
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator A - Level I: Information Technology Fundamentals**

**7180 or 7180DC**

IDOE #7180

*INFO TECH FUN Information Technology Fundamentals provides the necessary competencies required for an entry-level Information Technology professional. Students will have the knowledge required to assemble components based on customer requirements, install, configure and maintain devices/software for end users, understand the basics of networking and security, properly and safely diagnose, resolve and document common hardware and software issues while applying troubleshooting skills. Students will also learn appropriate customer support, understand the basics of virtualization, desktop imaging, and deployment. This course should also prepare students for the CompTia A+ Certification Exam.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Computing
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator B - Level I: Networking Fundamentals**

**7181 or 7182D**

IDOE #7182

*NTWK FUN Networking Fundamentals describes, explores and demonstrates how a network operates in our everyday lives. The course covers the technical pieces and parts of a network and also societal implications such as security and data integrity. Using hands-on lab work, this course offers students the critical information needed for a role as an Information Technology professional who supports computer networks. Concepts covered include the TCP/IP model, OS administration, designing a network topology, configuring the TCP/IP protocols, managing network devices and clients, configuring routers and switches, wireless technology and troubleshooting. Provides students the ability to implement, administer, and troubleshoot information systems that incorporate the Microsoft Windows clients and servers in an enterprise environment. Students will be introduced to managing applications, files, folders, and devices in a windows active directory environment.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Computing; Information Technology Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **Pathway Capstone - Level II: Networking Capstone**

**7251 or 7251DC**

IDOE #7251

*NETWK CAP Networking Capstone includes hands-on lab work, and a wide array of assessment types and tools. The course covers the architecture, components, and operations of routers and switches in small networks and introduces wireless local area networks (WLAN) and security concepts. Students learn how to configure and troubleshoot routers and switches for advanced functionality using security best practices and resolve common issues with protocols in both IPv4 and IPv6 networks. The course also emphasizes network security concepts and introduces network virtualization and automation. Students learn how to configure, troubleshoot, and secure enterprise network devices and understand how application programming interfaces (API) and configuration management tools enable network automation.*

- Recommended Grade(s): 11, 12

- Required Prerequisites: Principles of Computing; Information Technology Fundamentals; Networking Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

## SOFTWARE DEVELOPMENT

### Principles - Level I: Principles of Computing

**7183 or 7183DC**

IDOE #7183

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

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Computer Science; Completed or Co-Enrolled in Algebra I
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### CTE Concentrator A Level I - Website and Database Development

**7185 or 71852DC**

IDOE #7185

*Website and Database Development will provide students a basic understanding of the essential Web and Database skills and business practices that directly relate to Internet technologies used in Web site and Database design and development. Students will learn to develop Web sites using Hypertext Markup Language (HTML) and Cascading Style Sheets (CSS). Additionally students will be introduced to the basic concepts of databases including types of databases, general database environments, database design, normalization and development of tables, queries, reports, and applications. Students will be familiarized with the use of ANSI Standard Structured Query Language. Students will be introduced to data concepts such as data warehousing, data mining, and BIG Data. Students will develop a business application using database software such as Microsoft Access.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Computing
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course
- Counts as a science credit

### CTE Concentrator B - Level I: Software Development

**7184 or 71842DC**

IDOE #7184

*Software Development introduces students to concepts and practices of programming languages and software development. Students are introduced to algorithms and development tools used to document/implement computer logic. Discusses the history of software development, the different types of programming such as real time processing, web/database applications, and different program development environments. Concepts will be applied using 311 Indiana Department of Education High School Course Titles and Descriptions: 2023-2024 different programming languages, and students will develop and test working programs in an integrated system.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Computing
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course
- Counts as a science credit

### **Pathway Capstone - Level II: Software Development Capstone**

**7253 or 7253DC**

IDOE #7253

*Software Development Capstone provides a basic understanding of the fundamental concepts involved when using an object oriented programming language. The emphasis is on logical program design using a modular approach involving task-oriented program functions. Object-oriented concepts such as methods, attributes, inheritance, exception handling, and polymorphism are utilized. Applications are developed using these concepts and include developing a graphical user interface, selecting forms and controls, assigning properties and writing code. Students will also build upon their web design experiences in previous courses by taking an in-depth look into client- and server-side scripting aspects including Java Script and PHP: hypertext preprocessor along with other scripting tools.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Computing; Website and Database Development; Software Development
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

## **COMPUTER SCIENCE**

### **Principles - Level I: Principles of Computing**

**7183 or 7183DC**

IDOE #7183

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

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Introduction to Computer Science; Completed or Co-Enrolled in Algebra I
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator A - Level I: Topics in Computer Science**

**7351 or 7351DC**

IDOE #7351

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

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Computing
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum



- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator B - Level I: Computer Science**

**7352 or 7352DC**

IDOE #7352

*COMP SCI Computer Science introduces the fundamental concepts of procedural programming. Topics include data types, control structures, functions, arrays, files, and the mechanics of running, testing, and debugging. The course also offers an introduction to the historical and social context of computing and an overview of computer science as a discipline.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Computing
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **The AP Computer Science A curriculum may be used to complete the competencies required for this course.**

### **Pathway Capstone - Level II: Computer Science Capstone**

**7353 or 7353DC**

IDOE #7353

*COMP SCI CAP Computer Science Capstone provides a working understanding of the fundamentals of procedural and object-oriented program development using structured, modular concepts and modern object-oriented programming languages. Reviews control structures, functions, data types, variables, arrays, and data file access methods. The course is a second level computer science course introducing object oriented computer programming, using a language such as Java or C++. Object-oriented concepts studied include classes, objects, inheritance, polymorphism, operator overloading, exception handling, recursion, abstract data types, streams and file I/O. Students will explore programming concepts such as software reuse, data abstraction and event-driven programming.*

- Recommended Grade(s): 12
- Required Prerequisites: Principles of Computing; Topics in Computer Science; Computer Science
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

## **LAW, PUBLIC SAFETY, CORRECTIONS, AND SECURITY**

### **CRIMINAL JUSTICE**

#### **Principles - Level I: Principles of Criminal Justice**

**7193 or 7193DC**

IDOE #7193

*PRIN CR JUST Principles of Criminal Justice covers the purposes, functions, and history of the three primary parts of the criminal justice system: law enforcement, courts, and corrections. This course further explores the interrelationships and responsibilities of these three primary elements of the criminal justice system.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

#### **CTE Concentrator A - Level I: Law Enforcement Fundamentals**



**7191 or 7191DC**

IDOE #7191

*LAW ENF CLT AWR Law Enforcement Fundamentals* Critically examines the history and nature of the major theoretical perspectives in criminology, and the theories found within those perspectives. Analyzes the research support for such theories and perspectives, and the connections between theory and criminal justice system practice within all the major components of the criminal justice system. Demonstrates the application of specific theories to explain violent and non-violent criminal behavior on both the micro and macro levels of analysis. Additionally, this course will introduce fundamental law enforcement operations and organization. This includes the evolution of law enforcement at federal, state, and local levels.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Criminal Justice
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

**CTE Concentrator B - Level I: Corrections and Cultural Awareness****7188 or 7188DC**

IDOE #7188

*CRT CORR Corrections and Cultural Awareness* emphasizes the study of American criminal justice problems and systems in historical and cultural perspectives, as well as discussing social and public policy factors affecting crime. Multidisciplinary and multicultural perspectives are stressed. Additionally, this course takes a further examination of the American correctional system; the study of administration of local, state, and federal correctional agencies. The examination also includes the history and development of correctional policies and practices, criminal sentencing, jails, prisons, alternative sentencing, prisoner rights, rehabilitation, and community corrections including probation and parole. Current philosophies of corrections and the debates surrounding the roles and effectiveness of criminal sentences, institutional procedures, technological developments, and special populations are discussed.

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Criminal Justice; Law Enforcement Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

**Pathway Capstone - Level II: Criminal Justice Capstone****9077 or 9077DC**

IDOE #7231

*CRIM JUST CAP The Criminal Justice Capstone* course allows students to complete additional instruction to earn a postsecondary certificate and should include a work-based learning component such as job shadowing, internship, etc. once the core content is completed. Note that there may be age restrictions on work-based learning components.

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Criminal Justice; Law Enforcement Fundamentals, Corrections and Cultural Awareness
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- **Counts as a Directed Elective or Elective for all diplomas**

**FIRE AND RESCUE****Principles - Level I: Principles of Fire and Rescue****7195 or 7195DC**

IDOE #7195

*PRIN PS HAZ AWR Principles of Fire and Rescue* introduces students to the various roles that firefighters and emergency services workers play to protect the public from the loss of life and property. They are frequently the first emergency personnel at the scene of a traffic accident or medical emergency and may be called upon to put

out a fire, treat injuries or perform other vital functions. This course will introduce students to the history, terminology, and basic firefighting skills needed for a beginning firefighter. Additionally, students will develop a career plan for a career in public safety; including areas of Fire Science, Homeland Security, and Emergency Medical Services.

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator A - Level I: Fire Fighting Fundamentals**

**7189 or 7189DC**

IDOE #7189

*FIRE FGHT FUN Fire Fighting Fundamentals is for those students who are seeking certification as a firefighter. This course will prepare students for the Hazardous Materials Awareness and Operations certifications and will introduce students to NFPA 1001 which serves as the standard of measurement for all fire fighters in North America. Students will learn the knowledge and hands on practical skills for managing and controlling a hazardous materials incident required for the certifications. Furthermore, students will study how a fire behaves and will learn the basic firefighting skills needed to extinguish a fire while protecting themselves and other firefighters.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Fire and Rescue
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator B - Level I: Advanced Fire Fighting**

**7186 or 7186DC**

IDOE #7186

*ADV FIRE FGHT Advanced Fire Fighting expands upon the principles and techniques of firefighting learned in Fire Fighting Fundamentals. Students will study fire protection systems, firefighter safety and survival. Students will also learn what fire is, the chemical hazards of combustion, and related by-products of fire. Additionally, students will gain a better understanding of fire department organization, administration, operations, and basic strategies and tactics.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Fire and Rescue; Fire Fighting Fundamentals
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **Pathway Capstone - Level II: Fire and Rescue Capstone**

**7229 or 7229DC**

IDOE #7229

*FIRE RES CAP Fire and Rescue Capstone will prepare students to earn the EMT certification.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Fire and Rescue; Fire Fighting Fundamentals, Advanced Fire Fighting
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a Directed Elective or Elective for all diplomas**

## ELECTRONICS AND COMPUTER TECHNOLOGY

### Principles - Level I: Introduction to Engineering Design

**4802 or 4802DC**

IDOE #4802

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

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **NOTE: Schools that have agreed to be part of the Project Lead the Way network must follow all training and data collection requirements.**

### CTE Concentrator A - Level I: Electronic Fundamentals

**7361 or 7361DC**

IDOE #7361

*ELEC FUND Electronic Fundamentals will concentrate on the physical world of electricity and electronics. Practical techniques for proper and safe use of basic hand and machine tools are introduced. Techniques for connecting various types of circuits are also covered. The process of fabricating printed circuit boards is presented.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Introduction to Engineering Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### CTE Concentrator B - Level I: Digital Electronics

**5538 or 5538DC**

IDOE #5538

*DIG ELEC Digital Electronics is a course of study in applied digital logic that encompasses the design and application of electronic circuits and devices found in video games, watches, calculators, digital cameras, and thousands of other devices. Instruction includes the application of engineering and scientific principles as well as the use of Boolean algebra to solve design problems. Using computer software that reflects current industry standards, activities should provide opportunities for students to design, construct, test, and analyze simple and complex digital circuitry software will be used to develop and evaluate the product design. This course engages students in critical thinking and problem-solving skills, time management and teamwork skills. NOTE: This course aligns with the PLTW Digital Electronics curriculum. Use of the PLTW curriculum may require additional training and membership in the PLTW network.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Introduction to Engineering Design (-or- Principles of Engineering Technology)
- Recommended Prerequisites: Electronic Fundamentals
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

- **QMR: Qualifies as a quantitative reasoning course**

### **Pathway Capstone - Level II: Electronics and Computer Technology Capstone**

**7362 or 7362DC**

IDOE #7362

*ECT CAP Electronics and Computer Technology Capstone provides the opportunity for students to continue with foundational electronic concepts including circuit analysis and digital electronics modules. This course incorporates classroom, laboratory, and work-based experiences in the fundamental electronics concepts of circuit analysis and digital electronics as well as optional modules focused on industrial technology, emerging electronic technologies, residential and commercial electronic communication, and automation. Industry certifications and additional post-secondary education are critical components of this pathway.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Introduction to Engineering Design; Electronic Fundamentals; Digital Electronics
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **ENGINEERING (Digital Electronics)**

#### **Principles - Level I: Introduction to Engineering Design**

**4802 or 4802DC**

IDOE #4802

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

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **NOTE: Schools that have agreed to be part of the Project Lead the Way network must follow all training and data collection requirements.**

#### **CTE Concentrator A - Level I: Principles of Engineering**

**5644 or 5644DC**

IDOE #5644

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

*aligns with the PLTW Principles of Engineering curriculum. Use of the PLTW curriculum may require additional training and membership in the PLTW network.*

- Recommended Grade(s): 10, 11
- Required Prerequisites: Introduction to Engineering Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a science course requirement for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

### **CTE Concentrator B - Level I: Digital Electronics**

**5538 or 5538DC**

*IDOE #5538*

*DIG ELEC Digital Electronics is a course of study in applied digital logic that encompasses the design and application of electronic circuits and devices found in video games, watches, calculators, digital cameras, and thousands of other devices. Instruction includes the application of engineering and scientific principles as well as the use of Boolean algebra to solve design problems. Using computer software that reflects current industry standards, activities should provide opportunities for students to design, construct, test, and analyze simple and complex digital circuitry software will be used to develop and evaluate the product design. This course engages students in critical thinking and problem-solving skills, time management and teamwork skills. NOTE: This course aligns with the PLTW Digital Electronics curriculum. Use of the PLTW curriculum may require additional training and membership in the PLTW network.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Introduction to Engineering Design (-or- Principles of Engineering Technology)
- Recommended Prerequisites: Electronic Fundamentals
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

### **Pathway Capstone - Level II: Engineering Design and Development**

**5698 or 5698DC**

*IDOE #5698*

*ENG DES DEV Engineering Design and Development is an engineering research course in which students work in teams to research, design, test, and construct a solution to an open-ended engineering problem. The product development life cycle and a design process are used to guide the team to reach a solution to the problem. The team and/or individual(s) communicates their solution to a panel of stakeholders at the conclusion of the course. As the capstone course in the Engineering Pathway, EDD engages students in critical thinking, problem-solving, time management, and teamwork skills. NOTE: This course aligns with the PLTW Engineering Design and Development curriculum. Use of the PLTW curriculum may require additional training and membership in the PLTW network.*

- Recommended Grade(s): 12
- Required Prerequisites: Introduction to Engineering Design; Principles of Engineering; and one pre-engineering specialty course
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

## **ENGINEERING (Civil Engineering and Architecture)**

### **Principles - Level I: Introduction to Engineering Design**



**4802 or 4802DC**

IDOE #4802

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

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **NOTE: Schools that have agreed to be part of the Project Lead the Way network must follow all training and data collection requirements.**

**CTE Concentrator A - Level I: Principles of Engineering****5644 or 5644DC**

IDOE #5644

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

- Recommended Grade(s): 10, 11
- Required Prerequisites: Introduction to Engineering Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a science course requirement for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

**CTE Concentrator B - Level I: Civil Engineering and Architecture****5650 or 5650DC**

IDOE #5650

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



- Recommended Grade(s): 11, 12
- Required Prerequisites: Introduction to Engineering Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

### **Pathway Capstone - Level II: Engineering Design and Development 5698 or 5698DC**

IDOE #5698

*ENG DES DEV Engineering Design and Development is an engineering research course in which students work in teams to research, design, test, and construct a solution to an open-ended engineering problem. The product development life cycle and a design process are used to guide the team to reach a solution to the problem. The team and/or individual(s) communicates their solution to a panel of stakeholders at the conclusion of the course. As the capstone course in the Engineering Pathway, EDD engages students in critical thinking, problem-solving, time management, and teamwork skills. NOTE: This course aligns with the PLTW Engineering Design and Development curriculum. Use of the PLTW curriculum may require additional training and membership in the PLTW network.*

- Recommended Grade(s): 12
- Required Prerequisites: Introduction to Engineering Design; Principles of Engineering; and one pre-engineering specialty course
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

## **ENGINEERING (Aerospace)**

### **Principles - Level I: Introduction to Engineering Design 4802 or 4802DC**

IDOE #4802

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

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **NOTE: Schools that have agreed to be part of the Project Lead the Way network must follow all training and data collection requirements.**

### **CTE Concentrator A - Level I: Principles of Engineering 5644 or 5644DC**

IDOE #5644

*PRNC ENG Principles of Engineering is a course that focuses on the process of applying engineering, technological, scientific and mathematical principles in the design, production, and operation of products,*

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

- Recommended Grade(s): 10, 11
- Required Prerequisites: Introduction to Engineering Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a science course requirement for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

### **CTE Concentrator B - Level I: Aerospace Engineering 5518 or 5518DC**

IDOE #5518

*AERO ENG Aerospace Engineering should provide students with the fundamental knowledge and experience to apply mathematical, scientific, and engineering principles to the design, development, and evolution of aircraft, space vehicles and their operating systems. Emphasis should include investigation and research on flight characteristics, analysis of aerodynamic design, and impact of this technology on the environment. Classroom instruction should provide creative thinking and problem-solving activities using software that allows students to design, test, and evaluate a variety of air and space vehicles, their systems, and launching, guidance and control procedures. NOTE: This course aligns with the PLTW Aerospace Engineering curriculum. Use of the PLTW curriculum may require additional training and membership in the PLTW network.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Introduction to Engineering Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

### **Pathway Capstone - Level II: Engineering Design and Development 5698 or 5698DC**

IDOE #5698

*ENG DES DEV Engineering Design and Development is an engineering research course in which students work in teams to research, design, test, and construct a solution to an open-ended engineering problem. The product development life cycle and a design process are used to guide the team to reach a solution to the problem. The team and/or individual(s) communicates their solution to a panel of stakeholders at the conclusion of the course. As the capstone course in the Engineering Pathway, EDD engages students in critical thinking, problem-solving, time management, and teamwork skills. NOTE: This course aligns with the PLTW Engineering Design and Development curriculum. Use of the PLTW curriculum may require additional training and membership in the PLTW network.*

- Recommended Grade(s): 12
- Required Prerequisites: Introduction to Engineering Design; Principles of Engineering; and one pre-engineering specialty course
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

## ENGINEERING (Computer Integrated Manufacturing)

### Principles - Level I: Introduction to Engineering Design

**4802 or 4802DC**

IDOE #4802

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

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **NOTE: Schools that have agreed to be part of the Project Lead the Way network must follow all training and data collection requirements.**

### CTE Concentrator A - Level I: Principles of Engineering

**5644 or 5644DC**

IDOE #5644

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

- Recommended Grade(s): 10, 11
- Required Prerequisites: Introduction to Engineering Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a science course requirement for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

### CTE Concentrator B - Level I: Computer Integrated Manufacturing

**5534 or 5534DC**

IDOE #5534

*COMP INT MFG Computer Integrated Manufacturing is a course that applies principles of rapid prototyping, robotics, and automation. This course builds upon the computer solid modeling skills developed in Introduction of Engineering Design. Students will use computer controlled rapid prototyping and CNC equipment to solve problems by constructing actual models of their three-dimensional designs. Students will also be introduced to the fundamentals of robotics and how this equipment is used in an automated manufacturing environment.*

*Students will evaluate their design solutions using various techniques of analysis and make appropriate modifications before producing their prototypes. NOTE: This course aligns with the PLTW Computer Integrated Manufacturing curriculum. Use of the PLTW curriculum may require additional training and membership in the PLTW network.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Introduction to Engineering Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

### **Pathway Capstone - Level II: Engineering Design and Development**

**5698 or 5698DC**

IDOE #5698

*ENG DES DEV Engineering Design and Development is an engineering research course in which students work in teams to research, design, test, and construct a solution to an open-ended engineering problem. The product development life cycle and a design process are used to guide the team to reach a solution to the problem. The team and/or individual(s) communicates their solution to a panel of stakeholders at the conclusion of the course. As the capstone course in the Engineering Pathway, EDD engages students in critical thinking, problem-solving, time management, and teamwork skills. NOTE: This course aligns with the PLTW Engineering Design and Development curriculum. Use of the PLTW curriculum may require additional training and membership in the PLTW network.*

- Recommended Grade(s): 12
- Required Prerequisites: Introduction to Engineering Design; Principles of Engineering; and one pre-engineering specialty course
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

### **ENGINEERING (Environmental Sustainability)**

#### **Principles - Level I: Introduction to Engineering Design**

**4802 or 4802DC**

IDOE #4802

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

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **NOTE: Schools that have agreed to be part of the Project Lead the Way network must follow all training and data collection requirements.**

## **CTE Concentrator A - Level I: Principles of Engineering**

**5644 or 5644DC**

IDOE #5644

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

- Recommended Grade(s): 10, 11
- Required Prerequisites: Introduction to Engineering Design
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a science course requirement for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

## **CTE Concentrator B - Level I: Environmental Sustainability**

**4818 or 4818DC**

IDOE #4818

*ENV SUS Environmental Sustainability is a specialization course that builds upon prior knowledge learned in previous engineering and science courses. Students investigate and design solutions in response to current challenges such as providing the world with clean and abundant drinking water, an adequate food supply, and renewable energy. Students are introduced to environmental issues and use the engineering design process to design, build, and test potential solutions. This course engages critical thinking and problem-solving skills as students apply and extend their knowledge through designing experiments, managing projects, conducting research, and creating presentations to communicate solutions.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Introduction to Engineering Design
- Recommended Prerequisites: Biology
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a science course requirement for all diplomas**
- **If PLTW curriculum is used, PLTW training is required of the teacher.**

## **Pathway Capstone - Level II: Engineering Design and Development**

**5698 or 5698DC**

IDOE #5698

*ENG DES DEV Engineering Design and Development is an engineering research course in which students work in teams to research, design, test, and construct a solution to an open-ended engineering problem. The product development life cycle and a design process are used to guide the team to reach a solution to the problem. The team and/or individual(s) communicates their solution to a panel of stakeholders at the conclusion of the course. As the capstone course in the Engineering Pathway, EDD engages students in critical thinking, problem-solving, time management, and teamwork skills. NOTE: This course aligns with the PLTW Engineering Design and Development curriculum. Use of the PLTW curriculum may require additional training and membership in the PLTW network.*

- Recommended Grade(s): 12
- Required Prerequisites: Introduction to Engineering Design; Principles of Engineering; and one pre-engineering specialty course



- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

## TRANSPORTATION, DISTRIBUTION, AND LOGISTICS

### AUTOMOTIVE COLLISION REPAIR

#### Principles - Level I: Principles of Collision Repair

**7215 or 7215DC**

IDOE #7215

*PRIN COL REP Principles of Collision Repair provides students an overview of the operating, electrical, and general maintenance systems of the modern automobile. Students will be introduced to the safety and operation of equipment and tools used in the automotive collision industry. Students will study the basics of collision repair, along with learning to perform basic service and maintenance, including the car's starting and charging system.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

#### CTE Concentrator A - Level I: Automotive Body Repair

**7204 or 7204DC**

IDOE #7204

*AUTO BDY REP Automotive Body Repair provides students with an understanding of the materials, measuring, welding, and information resources applicable to collision repair. Students will study steel and aluminum dent repair, including the welding practices commonly performed within an automotive repair environment. Students will gain basic skills and knowledge in oxy-fuel welding, cutting, brazing and plasma cutting, gas metal arc welding, squeeze type resistance welding, exterior panel welding and I-CAR welding test preparation. Students will also learn the installation of moldings, ornaments, and fasteners with emphasis on sheet metal analysis and safety.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Collision Repair
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

#### CTE Concentrator B - Level I: Plastic Body Repair and Painting Fundamentals

**7206 or 7206DC**

IDOE #7206

*AUTO PT WELD Plastic Body Repair and Paint Fundamentals introduces the types of fiberglass and plastic materials used in auto body repair and considerations for automotive painting. Students will explore methods for repairing fiberglass and plastic damage, like welding, reinforcing, repairing holes, and retexturing plastic. Students will be asked to demonstrate the proper use of primers and sealers, spraying techniques, and an understanding of various paint finishes.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Collision Repair; Automotive Body Repair
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**



## **Pathway Capstone - Level II: Collision Repair Capstone**

**7380 or 7380DC**

IDOE #7380

*COLL RPR CAP This course further explores important skills and competencies within the Automotive Body Technology Pathway. Topics such as Automotive Painting Technology, Collision Damage Appraising, and Fiberglass Plastic Repair. Additionally, Co-Op and Internship opportunities will be available for students.*

- Recommended Grade(s): 11,12
- Required Prerequisites: Principles of Collision Repair; Plastic Body Repair and Paint Fundamentals; Automotive Body Repair
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- **Counts as a Directed Elective or Elective for all diplomas**

## **AUTOMOTIVE SERVICES**

### **Principles - Level I: Principles of Automotive Services**

**7213 or 7213DC**

IDOE #7213

*PRIN AUTO SER This course gives students an overview of the operating and general maintenance systems of the modern automobile. Students will be introduced to the safety and operation of equipment and tools used in the automotive industry. Students will study the maintenance and light repair of automotive systems. Also, this course gives students an overview of the electrical operating systems of the modern automobile. Students will be introduced to the safety and operation of equipment and tools used in the electrical diagnosis and repair in the automotive electrical industry. Students will study the fundamentals of electricity and automotive electronics.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator A - Level I: Brake Systems**

**7205 or 7205DC**

IDOE #7205

*AUTO BRK ELE This course gives students an in-depth study of vehicle electrical systems. Students will study the fundamentals of electricity and automotive electronics in various automotive systems. Additionally, it teaches theory, service and repair of automotive braking systems. This course provides an overview of various mechanical brake systems used on today's automobiles. This course will emphasize professional diagnosis and repair methods for brake systems.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Automotive Services
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Schools partnering with Vincennes University must offer the program of study as part of a 2-3 period block.**

### **CTE Concentrator B - Level I: Steering and Suspensions**

**7212 or 7212DC**

IDOE #7212

*ENG PERF This course takes an in-depth look at engine performance, including concepts in the diagnosis and repair of ignition, fuel, emission and related computer networks. This course presents engine theory and operation and studies the various engine designs utilized today. This course also takes an in-depth look at engine performance, including advanced concepts in the diagnosis and repair of ignition, fuel, emission and related computer networks. This course presents engine theory and operation and studies the various engine designs utilized today. Hybrid/Alternative fuel technology will also be introduced.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Automotive Services
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Schools partnering with Vincennes University must offer the program of study as part of a 2-3 period block.**

### **Pathway Capstone - Level II: Automotive Service Capstone 7375 or 7375DC**

IDOE #7375

*AUTO SRV CAP This course further explores important skills and competencies within the Automotive Service Technology Pathway. Topics such as Steering & Suspension, Engine Repair, Climate Control, and Driveline Service. Additionally, Co-Op and Internship opportunities will be available for students.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Automotive Services; Brake Systems; Steering and Suspensions
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- **Counts as a Directed Elective or Elective for all diplomas**

## **AVIATION MANAGEMENT**

(formerly Aviation Flight and Operations)

### **Principles - Level I: Principles of Aviation Management 7214 or 7214DC**

IDOE #7214

*PRIN AVI MAN This course provides the student the opportunity to develop an understanding of various aspects of the aviation industry to include general regulations and laws associated with the field. Included is an overview of the aviation field and all employment opportunities. Areas of study include aerodynamics, aircraft systems, performance, weight and balance, physiology, regulations, cross country planning, weather, and decision-making skills. Students will also learn of the departments associated with an airport and their impact on the industry as a whole.*

- Recommended Grade(s): 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator A - Level I: Private Pilot Theory 7217 or 7217DC**

IDOE #7217

*PVT PLT THRY The student will receive ground school knowledge required for certification as a private pilot with an airplane single engine land rating. Areas of study include aerodynamics, aircraft systems, performance, weight and balance, physiology, regulations, cross country planning, weather, and decision-making skills.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Aviation Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **CTE Concentrator B - Level I: Aviation Safety and Operations 7207 or 7207DC**

IDOE #7207

*AVI SAF OPS This course is an overview of general aviation operations, including the operation and management of the Fixed Base Operation (FBO). It introduces the challenges and complexity of aviation security*

*faced by aviation professionals across the industry and traces the evolution of current security approaches and explores technologies and processes targeting threat mitigation and improved operational efficiency. Emphasis will be placed on financial and operational considerations as well as on regulatory requirements and constraints.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Principles of Aviation Management
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**

### **Pathway Capstone - Level II: Aviation Management Capstone**

**7218 or 7218DC**

IDOE #7218

*AVI MGMT CAP This course is an introduction to the aviation weather service program. Course includes the National Weather Service, Flight Service Stations, International Civil Aviation Organization, and analyzing and interpreting of weather reports and maps. Additionally, this course will prepare students for certification as an Instrument Pilot with an Airplane Single Engine Land rating. Areas of study include basic instrument flying, flying instruments, IFR charts and approach plates, IFR regulations and procedures, ATC clearances, and IFR flight planning.*

- Recommended Grade(s): 11, 12
- Required Prerequisites: Principles of Aviation Management; Private Pilot Theory; Aviation Safety and Operations
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semester required, 1-3 credits per semester, 6 credits max
- **Counts as a Directed Elective or Elective for all diplomas**

### **TECHNICAL SKILLS DEVELOPMENT**

**7156 or 7156DC**

IDOE #7156

*TECH SKL DEV The Technical Skills Development course may be used to provide students with the opportunity to apply the technical knowledge and skills learned in a Concentrator A or B course through additional real world learning experiences such as lab activities, project based learning or a work-based learning experience. Students must be co-enrolled in a Concentrator A and/or B course in order to be enrolled in the Technical Skills Development course.*

- Recommended Grade(s): 10, 11, 12
- Required Prerequisites: Concurrently enrolled in a Next Level Programs of Study Concentrator A and/or B course.
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum per program of study
- **Counts as a directed elective or elective for all diplomas**
- **May be used by a student more than once as long as it is two separate programs of study.**
- *The Technical Skills Development course allows students to have additional practice time or to complete a WBL experience while co-enrolled in a Concentrator A or Concentrator B course. TSD is funded at \$300, and the credits would count as part of a student's 6 credit yearly maximum within a program of study, but they do not count toward Concentrator Status. The course must be used with a multi-period block that includes a Concentrator A or B course.*

## ENGLISH/LANGUAGE ARTS

### ENGLISH 9

#### 11212 (1121-1122)

IDOE #1002

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

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

### APPLIED ENGLISH 9

#### 11212J (1121J-1122J)

IDOE #1002

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

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

### ENGLISH 9 HONORS

#### 11312 (1131-1132)

IDOE #1002

*English 9 Honors provides students with a rigorous regimen of reading and writing as well as work with grammar/style/usage. Reading selections include a variety of works from fiction, nonfiction, drama, and poetry. Writing includes reports and essays, along with critical and creative responses to works studied. Students engage in extensive research, creative projects, and group presentations.*

### ENGLISH 10

#### 11234 (1123-1124)

IDOE #1004

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

*grade-appropriate oral presentations with attention to audience and purpose and access, analyze, and evaluate online information.*

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

## **APPLIED ENGLISH 10**

**11234J (1123J-1124J)**

*IDOE #1004*

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

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

## **ENGLISH 10 HONORS**

**11334 (1133-1134)**

*IDOE #1004*

*English 10 Honors provides students with a rigorous regimen of reading and writing as well as work with grammar/style/usage. Reading selections include a variety of works from fiction, nonfiction, drama and poetry. Writing includes reports and essays, along with critical and creative responses to works studied. Students engage in extensive research, creative projects, and group presentations.*

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

## **ENGLISH 11**

**11256 (1125-1126)**

*IDOE #1006*

*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. It is a building level decision if the content focus will be American Literature.*

- Recommended Grade: 11
- Required Prerequisites: English 9 & 10
- Recommended Prerequisites: none

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

## **APPLIED ENGLISH 11**

**11256J (1125J-1126J)**

IDOE # 1006

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

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied units: 4 units maximum

- **Counts as an English/Language Arts Requirement for the Certificate of Completion**

## **ENGLISH 11 HONORS**

**11356 (1135-1136)**

IDOE #1006

*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. It is a building level decision if the content focus will be American Literature.*

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

## **ENGLISH 12**

**11278 (1127-1128)**

IDOE #1008

*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. It is a building level decision if the content focus will be British Literature.*

- Recommended Grade: 12
- Required Prerequisites: any English 9 & 10



- Recommended Prerequisites: English 9, English 10, and English 11 or teacher recommendation
- Credits: 2 semester course, 1 credit per semester
- **Fulfills an English/Language Arts requirement for all diplomas**

## **APPLIED ENGLISH 12**

**11278J (1127J-1128J)**

IDOE # 1008

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

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied units: 4 units maximum

- **Counts as an English/Language Arts Requirement for the Certificate of Completion**

## **ENGLISH 12 HONORS**

**11378 (1137-1138)**

IDOE #1008

*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. It is a building level decision if the content focus will be British Literature.*

- Recommended Grade: 12
- Required Prerequisites: any English 9 & 10
- Recommended Prerequisites: English 9, English 10, and English 11 or teacher recommendation
- Credits: 2 semester course, 1 credit per semester

- **Fulfills an English/Language Arts requirement for all diplomas**

## **ENGLISH AS A NEW LANGUAGE**

**10112 (1011-1012)**

IDOE #1012

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

- Recommended Grade: Recommended Grade: 9, 10, 11, and 12. The intent of the ENL course is to move students as successfully, smoothly, and rapidly as possible into the Core 40 English courses offered in grades 9-12.
- Required Prerequisites: none

- Recommended Prerequisites: English proficiency placement test results
- **English/Language Arts credit (1012): If ENL course work addresses Indiana's Academic Standards for English/Language Arts and is based on general ELA curriculum and student's Individualized Learning Plan, up to 8 credits accrued can be counted as the required English/ Language Arts credits for all diplomas.**
- **Fulfills an English Language Arts requirement for all diplomas**
- **World Language credit (2188): If ENL course work addresses Indiana's Academic Standards for World Languages and is taken concurrently with another English/Language Arts course**
- Up to 8 credits accrued may count as World Language credits for all diplomas.

## JOURNALISM

**12212 (1221-1222)**

IDOE #1080

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

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

## LANGUAGE ARTS LAB

**1100**

IDOE #1010

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

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

## APPLIED LANGUAGE ARTS LAB

**1100J**

IDOE #1010

*Applied Language Arts Lab is a supplemental course that provides students with individualized or small group instruction designed to support skills and content aligned to Indiana Academic Standards or Content Connectors*

for English/Language Arts. All students should be concurrently enrolled in an English course or have met the ELA requirements for the Certificate of Completion.

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

## DRAMATIC LITERATURE

6307

IDOE #1028

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

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

## LINGUISTICS

1064

IDOE #1064

*Linguistics is the study of language structures and patterns that enable humans to communicate an infinite number of ideas using a finite grammar and vocabulary. Students examine the terminology and sub-categories of linguistics as a field of study, including semantics, syntax, and morphology. Students analyze the psychological, social, and cultural factors that contribute to choices of structure and pattern by language users.*

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

## ETYMOLOGY

1060

IDOE #1060

*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.*

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: 4 credits in English Language Arts
- Credits: 1 semester course, 1 credit per semester

- **Fulfills an English/Language Arts requirement for all diplomas**
- **NOTE: Students are strongly encouraged to combine this course with a literature or composition course that they take before, concurrently, or after the course.**

## **ETHNIC LITERATURE**

**1032**

*IDOE #1032*

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

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

## **FILM LITERATURE**

**1435**

*IDOE #1034*

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

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

## **THEMES IN LITERATURE**

**1433 or 1433DC**

*IDOE #1048*

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

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

## ADVANCED SPEECH AND COMMUNICATION

1422

IDOE #1078

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

- Recommended Grade: 11, 12
- Required Prerequisites: any English 9 & 10
- Recommended Prerequisites: Speech
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- **Fulfills an English/Language Arts requirement for all diploma**

## SPEECH

1421

IDOE #1076

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

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

## CREATIVE WRITING

1251

IDOE #1092

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

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

## EXPOSITORY WRITING

1261

IDOE #1094

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

- Recommended Grade: 11, 12

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



## STUDENT MEDIA (New Name)

### NEWSPAPER

1223

IDOE #1086

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

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

### YEARBOOK

1225

IDOE #1086

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

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

### TECHNICAL COMMUNICATIONS

1262

IDOE #1096

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

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

- Recommended Prerequisites: English 9, English 10, or teacher recommendation
- Credits: 1 semester course, 1 credit per semester
- **Fulfills an English/Language Arts requirement for all diplomas**

## **APPLIED TECHNICAL COMMUNICATIONS**

**1262J**

*IDOE #1096*

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

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

## FINE ARTS

### FINE ARTS CONNECTIONS

**6000V**

IDOE #4026

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

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

### DANCE COURSE TITLES

#### DANCE CHOREOGRAPHY (L)

**8215V**

IDOE #4142

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

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

#### DANCE PERFORMANCE

IDOE #4146

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

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

#### **I: MODERN DANCE I & BALLET I (L)**

**8201V**

*IDOE #4146*

#### **IIA: MODERN DANCE II & BALLET II (L)**

**8203V**

*IDOE #4146*

#### **IIB: JAZZ I & ETHNIC/FOLK I (L)**

**8207V**

*IDOE #4146*

#### **IIIA: MODERN DANCE III & BALLET III (L)**

**8205V**

*IDOE #4146*

#### **IIB: JAZZ II & ETHNIC FOLK II (L)**

**8213V**

*IDOE #4146*

#### **IVA: MODERN DANCE IV & BALLET IV (L)**

**8212V**

*IDOE #4146*

### **MUSIC COURSE TITLES**

**REQUIREMENTS FOR ALL MUSIC PERFORMANCE CLASSES:** 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. Introductory classes are recommended before enrolling in advanced courses.

#### **STUDIO MUSIC**

##### **APPLIED MUSIC (L)**

**8253V** Guitar Studies I

*IDOE #4200*

**8255V** Guitar Studies II

*IDOE #4200*

*Applied Music is based on the Indiana Academic Standards for High School Choral or Instrumental Music. Applied Music offers high school students the opportunity to receive small group or private instruction designed to develop and refine performance skills. A variety of music methods and repertoire is utilized to refine students' abilities in performing, creating, and responding to music.*

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

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

## MUSIC HISTORY AND APPRECIATION

**6201**

IDOE #4206

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

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

## MUSIC THEORY AND COMPOSITION (L)

**8141**

IDOE #4208

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

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

## PIANO AND ELECTRONIC KEYBOARD (L)

**8251V**

IDOE #4204

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

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

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

## **ELECTRONIC MUSIC (L)**

**8241V**

*IDOE #4202*

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

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

## **INSTRUMENTAL ENSEMBLE (L)**

**82778 (8277-8278)**

*IDOE #4162*

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

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

## **CHORAL**

### **BEGINNING CHORUS (L)**

**8171V**

*IDOE# 4182*

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



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

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

## **INTERMEDIATE CHORUS (L)**

**8171**

**IDOE# 4186**

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

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

## **ADVANCED CHORUS (L)**

**8175V**

**IDOE #4188**

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

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

## CHORAL CHAMBER ENSEMBLE (L)

8151

IDOE #4180

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

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

## VOCAL JAZZ (L)

8101

IDOE #4184

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

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

## BAND

### BEGINNING CONCERT BAND (L)

8269

IDOE #4160

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

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

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

## **INTERMEDIATE CONCERT BAND (L)**

**8271**

*IDOE #4168*

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

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

## **ADVANCED CONCERT BAND (L)**

**8273V**

*IDOE #4170*

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

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

- Laboratory course

## **JAZZ ENSEMBLE (L)**

**8311**

*IDOE #4164*

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

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

## **ORCHESTRA**

### **INTERMEDIATE ORCHESTRA (L)**

**8261**

*IDOE #4172*

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

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

## ADVANCED ORCHESTRA (L)

8263V

IDOE #4174

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

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

## THEATRE ARTS COURSE TITLES

**REQUIREMENTS FOR ALL THEATRE ARTS CLASSES:** Theatre arts class 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. Introductory classes are a prerequisite for enrolling in advanced courses or permission of the instructor.

### MUSICAL THEATRE

6308V

IDOE #0518

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

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

### TECHNICAL THEATRE (L)

6311V

IDOE #4244

*Technical Theatre is based on the Indiana Academic Standards for Theatre. Students enrolled in Technical Theatre actively engage in the process of designing, building, managing, and implementing the technical aspects of a production. These activities should incorporate elements of theatre history, culture, analysis, response, creative*



*process, and integrated studies. Additionally, students explore career opportunities in the theatre, attend and critique theatrical productions, and recognize the responsibilities and the importance of individual theatre patrons in their community.*

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

## **THEATRE ARTS (L)**

**6301**

*IDOE #4242*

*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.*

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

## **ADVANCED THEATRE ARTS (L)**

**6303**

*IDOE #4240*

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

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

## **THEATRE ARTS, SPECIAL TOPICS (L)**

**6306V Shakespeare**

*IDOE #4254*

*Theatre Arts, Special Topics is based on the Indiana Academic Standards for Theatre. Students taking this course focus on a specific subject related to theatre arts, such as: Shakespeare, Children's Theatre, Directing, Arts Management, and other specialized areas of study. These activities should incorporate elements of theatre history,*



*culture, analysis, response, creative process, and integrated studies. Additionally, students explore career opportunities in the theatre, attend and critique theatrical productions, and recognize the responsibilities and the importance of individual theatre patrons in their community.*

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

## **THEATRE PRODUCTION (L)**

**6321V**

*IDOE #4248*

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

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

## **VISUAL ARTS COURSE TITLES**

**REQUIREMENTS FOR ALL VISUAL ARTS CLASSES:** Visual arts students engage in sequential learning experiences that encompass art history, art criticism, aesthetics, production and integrated studies. Students reflect upon and refine their work and strive to create portfolio quality work. They 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; incorporate literacy and presentational skills; utilize the resources of art museums, galleries, and studios; and identify art-related careers. Introductory classes are recommended for enrolling in advanced courses.

## **ART HISTORY**

**6205**

*IDOE #4024*

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

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

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

## CERAMICS I (L)

6041

IDOE #4040

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

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

## CERAMICS II (I)

6043

IDOE #4040

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

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

## DIGITAL DESIGN

XXXX

IDOE #4082

*Digital Design is a course based on the Indiana Academic Standards for Visual Art. Students in digital design engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works. They incorporate desktop publishing, multimedia, digitized imagery, computer animation, and web design. Students reflect upon and refine their work; explore cultural and historical*

*connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art-related careers.*

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

## **DRAWING (L)**

**6021**

IDOE #4060

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

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

## **FIBER ARTS (L)**

**6034V**

IDOE #4046

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

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

- Laboratory Course

## **INTRODUCTION: TWO-DIMENSIONAL ART (L)**

**6011**

IDOE #4000

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

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

## **ADVANCED TWO-DIMENSIONAL ART (L)**

**6051**

IDOE #4004

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

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

## **INTRODUCTION: THREE-DIMENSIONAL ART (L)**

**6012**

IDOE #4002

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

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

- Recommended Prerequisites: Introduction to Two-Dimensional Art (L)
- Credits: 1 semester course, 1 credit per semester
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma**
- Laboratory course

## ADVANCED THREE-DIMENSIONAL ART (L)

6052

IDOE #4006

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

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

## JEWELRY (L)

6077V

IDOE #4042

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

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

## PAINTING (L)

6075V

IDOE #4064

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

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

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

## **PHOTOGRAPHY I (L)**

**6001**

*IDOE #4062*

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

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

## **PHOTOGRAPHY II (L)**

**6003**

*IDOE #4062*

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

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

## **PHOTOGRAPHY III**

**6005**

*IDOE #4062*



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

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

## **PRINTMAKING (L)**

**6032**

*IDOE #4066*

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

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

## **SCULPTURE (L)**

**6045V**

*IDOE #4044*

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

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

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

## VISUAL COMMUNICATION

**6047**

*IDOE #4086*

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

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

## HEALTH AND WELLNESS / PHYSICAL EDUCATION

*Physical Education classes are coeducational, unless the activity involves bodily contact or groupings are based on an objective standard of individual performance, and developed without regard to gender. Adapted physical education must be offered, as needed, in the least restrictive environment and must be based on individual assessment.*

### HEALTH EDUCATION

#### HEALTH & WELLNESS EDUCATION

**8021**

IDOE #3506

*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.* **This course is required to meet state graduation requirements.**

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

#### APPLIED HEALTH & WELLNESS EDUCATION

**8021J**

IDOE #3506

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

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

- Applied Units: 2 units maximum
- **Counts as an elective or Health & Wellness requirement for the Certificate of Completion**

## **APPLIED CURRENT HEALTH ISSUES**

**3508J**

IDOE #3508

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

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

## **PHYSICAL EDUCATION**

### **PHYSICAL EDUCATION I**

**8503**

IDOE #3542

*Physical Education I focuses on instructional strategies through a planned, sequential, and comprehensive physical education curriculum which provides students with opportunities to actively participate in at least four of the following: team sports; dual sport activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance, all of which are within the framework of the skills, knowledge and confidence needed by the student for a lifetime of healthful physical activity and fitness. Ongoing assessment includes both written and performance based skill evaluation. Individual assessments may be modified for individuals with disabilities, in addition to those with IEPs and 504 plans (e.g., chronic illnesses, temporary injuries, obesity, etc.). See 511 IAC 7-27-9, 7-27-11.*

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Grade 8 Physical Education
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester, 1 credit maximum
- **Fulfills part of the Physical Education requirement for all diplomas**

### **APPLIED PHYSICAL EDUCATION I**

**8503J**

IDOE #3542

*Applied Physical Education I focuses on instructional strategies through a planned, sequential, and comprehensive physical education curriculum which provides students with opportunities to actively participate in at least four of the following: team sports; dual sport activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance, all which are within the framework of lifetime physical activities and fitness. Ongoing assessment includes individual progress and performance-based skill evaluation.*

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 2 units maximum
- **Counts as a Physical Education requirement for the Certificate of Completion**

### **PHYSICAL EDUCATION II**

*Physical Education II focuses on instructional strategies through a planned, sequential, and comprehensive physical education curriculum which provides students with opportunities to actively participate in four of the following areas that were not included in Physical Education I: team sports; dual sport activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance, all of which are within the framework of the skills, knowledge and confidence needed by the student for a lifetime of healthful physical activity and fitness. Ongoing assessment includes both written and performance-based skill evaluation. Individual assessments may be modified for individuals with disabilities, in addition to those with IEPs and 504 plans (e.g., chronic illnesses, temporary injuries, obesity, etc.). See 511 IAC 7-27-9, 7-27-11.*

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Physical Education I
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester, 1 credit maximum
- **Fulfills part of the Physical Education requirement for all diplomas**
- Classes are co-educational unless the activity involves bodily contact or groupings based on an objective standard of individual performance developed and applied without regard to gender.
- Adapted physical education must be offered, as needed, in the least-restrictive environment and must be based upon an individual assessment.
- As a designated laboratory course, 25% of course time must be spent in activity.

## APPLIED PHYSICAL EDUCATION II

### 8504J

IDOE #3544

*Physical Education II focuses on instructional strategies through a planned, sequential, and comprehensive physical education curriculum which provides students with opportunities to actively participate in four of the following areas that were not included in Physical Education I: team sports; dual sport activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance, all of which are within the framework of the skills, knowledge and confidence needed by the student for a lifetime of healthful physical activity and fitness. Ongoing assessment includes both written and performance-based skill evaluation. Individual assessments may be modified for individuals with disabilities, in addition to those with IEPs and 504 plans (e.g., chronic illnesses, temporary injuries, obesity, etc.). See 511 IAC 7-27-9, 7-27-11.*

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Physical Education I
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester, 1 credit maximum
- **Fulfills part of the Physical Education requirement for all diplomas**
- Classes are co-educational unless the activity involves bodily contact or groupings based on an objective standard of individual performance developed and applied without regard to gender.
- Adapted physical education must be offered, as needed, in the least-restrictive environment and must be based upon an individual assessment.
- As a designated laboratory course, 25% of course time must be spent in activity.

## ELECTIVE PHYSICAL EDUCATION

### 85067 (8506-8507)

IDOE #3560

*Elective Physical Education is a course based on selected standards from Indiana's Academic Standards for Physical Education, identifies what a student should know and be able to do as a result of a quality physical education program. The goal of a physically educated student is to maintain appropriate levels of cardio-respiratory endurance, muscular strength and endurance, flexibility, and body composition necessary for a healthy and productive life. Elective Physical Education promotes lifetime sport and recreational activities and provides an opportunity for an in-depth study in one or more specific areas. A **minimum of two** of the following activities should be included: team sports; dual sports activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance. This course includes the study of physical*



development concepts and principles of sport and exercise as well as opportunities to develop or refine skills and attitudes that promote lifelong fitness. Students have the opportunity to design and develop an appropriate personal fitness program that enables them to achieve a desired level of fitness. Ongoing assessment includes both written and performance-based skill evaluation. Individual assessments may be modified for individuals with disabilities, in addition to those with IEPs and 504 plans (e.g., chronic illnesses, temporary injuries, obesity, etc.). The nature of this course allows for successive semesters of instruction provided defined proficiencies and content standards are utilized.

- Recommended Grade Level: 10, 11, 12
- Recommended Prerequisites: Physical Education I and II
- Credits: 1 credit per semester, maximum of 8 credits
- **Counts as an Elective requirement for all diplomas**

## **ELECTIVE PHYSICAL EDUCATION: IHSAA OFFICIATING 101**

**8514**

IDOE #3560

*Elective Physical Education is a course based on selected standards from Indiana's Academic Standards for Physical Education, identifies what a student should know and be able to do as a result of a quality physical education program. The goal of a physically educated student is to maintain appropriate levels of cardio-respiratory endurance, muscular strength and endurance, flexibility, and body composition necessary for a healthy and productive life. Elective Physical Education promotes lifetime sport and recreational activities and provides an opportunity for an in-depth study in one or more specific areas. A minimum of two of the following activities should be included: team sports; dual sports activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance. This course includes the study of physical development concepts and principles of sport and exercise as well as opportunities to develop or refine skills and attitudes that promote lifelong fitness. Students have the opportunity to design and develop an appropriate personal fitness program that enables them to achieve a desired level of fitness. Ongoing assessment includes both written and performance-based skill evaluation. Individual assessments may be modified for individuals with disabilities, in addition to those with IEPs and 504 plans (e.g., chronic illnesses, temporary injuries, obesity, etc.). The nature of this course allows for successive semesters of instruction provided defined proficiencies and content standards are utilized. **Objective: Offer students an opportunity to develop communication, management, and leadership skills while providing an avenue for employment during high school and well beyond post-graduate.***

- Recommended Grade Level: 9, 10, 11, 12
- Required Prerequisites: Physical Education I
- Recommended Prerequisites: none
- Credits: 1 credit per semester
- **Counts as an Elective requirement for all diplomas**

## **ELECTIVE PHYSICAL EDUCATION: ADVANCED WEIGHTS**

**8512**

IDOE #3560

*Elective Physical Education is a course based on selected standards from Indiana's Academic Standards for Physical Education, identifies what a student should know and be able to do as a result of a quality physical education program. The goal of a physically educated student is to maintain appropriate levels of cardio-respiratory endurance, muscular strength and endurance, flexibility, and body composition necessary for a healthy and productive life. Elective Physical Education promotes lifetime sport and recreational activities and provides an opportunity for an in-depth study in one or more specific areas. A **minimum of two** of the following activities should be included: team sports; dual sports activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance. This course includes the study of physical development concepts and principles of sport and exercise as well as opportunities to develop or refine skills and attitudes that promote lifelong fitness. Students have the opportunity to design and develop an appropriate personal fitness program that enables them to achieve a desired level of fitness. Ongoing assessment includes both written and performance-based skill evaluation. Individual assessments may be modified for individuals with disabilities, in addition to those with IEPs and 504 plans (e.g., chronic illnesses,*



temporary injuries, obesity, etc.). The nature of this course allows for successive semesters of instruction provided defined proficiencies and content standards are utilized. **Objective: Offer students an opportunity to develop agility, safety techniques, understanding of proper weight training principles and concepts, along with advanced techniques of weights and strength training.**

- Recommended Grade Level: 10, 11, 12
- Recommended Prerequisites: Physical Education I and II
- Credits: 1 credit per semester, maximum of 8 credits
- **Counts as an Elective requirement for all diplomas**

## **APPLIED ELECTIVE PHYSICAL EDUCATION**

**8506J**

*IDOE #3560*

*Elective Physical Education, a course based on selected standards from Indiana's Academic Standards for Physical Education, identifies what a student should know and be able to do as a result of a quality physical education program. The goal of a physically educated student is to maintain appropriate levels of cardio-respiratory endurance, muscular strength and endurance, flexibility, and body composition necessary for a healthy and productive life. Elective Physical Education promotes lifetime sport and recreational activities and provides an opportunity for an in-depth study in one or more specific areas. A minimum of two of the following activities should be included: team sports; dual sports activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance. This course includes the study of physical development concepts and principles of sport and exercise as well as opportunities to develop or refine skills and attitudes that promote lifelong fitness. Students have the opportunity to design and develop an appropriate personal fitness program that enables them to achieve a desired level of fitness. Ongoing assessment includes both written and performance-based skill evaluation. Individual assessments may be modified for individuals with disabilities, in addition to those with IEPs and 504 plans (e.g., chronic illnesses, temporary injuries, obesity, etc.). See 511 IAC 7-27-9, 7-27-11.*

- Applied Units: 1 unit per semester/8 units maximum
- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Physical Education I and II
- Credits: 1 credit per semester, maximum of 8 credits
- **Counts as an elective requirement for all diplomas**
- The nature of this course allows for successive semesters of instruction provided defined proficiencies and content standards are utilized.
- Classes are co-educational unless the activity involves bodily contact or groupings based on an objective standard of individual performance developed and applied without regard to gender

## MATHEMATICS

*There is an increased use of graphing calculator technology in many mathematics classes. Graphing calculators are introduced in Algebra I and become an integral part of courses at the Algebra II level and above. Schools have sets of Texas Instrument graphing calculators for student use in the classroom. Students in upper level math courses are encouraged to purchase their own graphing calculators.*

### ALGEBRA I

**32212 (3221-3222)**

IDOE #2520

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

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: None
- Recommended Prerequisites: None
- 2 semester course, 1 credit per semester
- **Fulfills a Mathematics course requirement for all diplomas**
- **Fulfills the Algebra I/Integrated Mathematics I requirement for all diplomas**
- Students pursuing Core 40, Core 40 with Academics Honors, or Core 40 with Technical Honors diploma should receive credit for Algebra I by the end of Grade 9
- 9th Graders are required to also take Algebra I Lab

### APPLIED ALGEBRA I

**32212J (3221J-3222J)**

IDOE #2520

*Applied Algebra I formalizes and extends the mathematics students learned in the middle grades. Algebra I is made up of five strands: Numbers Sense; Expressions and Computation; Linear Equations; Inequalities and Functions; Systems of Equations and Inequalities and Quadratic and Exponential Equations and Functions. The strands are further developed by focusing on the content of the Algebra content connectors.*

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: None
- Recommended Prerequisites: None
- 4 units maximum
- **Fulfills a Math requirement for the Certificate of Completion**

### ALGEBRA I LAB

**30190 (3019-3020)**

IDOE #2516

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

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: None
- Recommended Prerequisites: None
- 2 semester course, 1 credit per semester
- **Fulfills a Mathematics course requirement for the General Diploma only or as an elective for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas**
- **Algebra I Lab is designed as a support course for Algebra I. As such, a student taking Algebra I Lab must also be enrolled in Algebra I during the same academic year.**
- **9th grade students enrolled in Algebra I (non-Honors) should also be enrolled in Algebra I Lab. Honors Algebra I and repeat Algebra I students should not be enrolled in Algebra I Lab.**

## **APPLIED ALGEBRA I LAB**

**30190J (3019J-3020J)**

IDOE #2516

*Applied Algebra I Lab is a mathematics support course. Algebra I Lab should be taken while students are concurrently enrolled in a math course or have met the math requirements for the certificate of completion. This course provides students with additional time to build the foundations necessary for high school math courses and work on specific, individualized math skills, while concurrently having access to rigorous, grade-level appropriate courses. The five critical areas align with the critical areas of Math: Number Sense; Computation; Data Analysis; Geometry and Measurement; and Algebraic Thinking. Algebra I Lab combines standards from high school courses with foundational standards from the middle grades.*

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

## **ALGEBRA I HONORS**

**32312 (3231-3232)**

IDOE #2520

*Algebra I Honors provides a more in-depth study of algebra and moves at a faster pace than Algebra I. Additional topics will be covered, including applications to real world problems.*

- No Lab required

## **ALGEBRA II**

**34212 (3421-3422)**

IDOE #2522

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

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Algebra I
- 2 semester course, 1 credit per semester
- **Fulfills a Mathematics course requirement for all diplomas**
- **Fulfills the Algebra II/Integrated Mathematics III requirement for all diplomas**

## ALGEBRA II HONORS

**34312 (3431-3432)**

IDOE #2522

*Algebra II Honors* provides a more in-depth study of Algebra II and moves at a faster pace. Additional topics will be covered, including major ideas from trigonometry.

- Required Prerequisites: Algebra I

## FINITE MATHEMATICS

**3461**

IDOE #2530

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

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Algebra I
- Recommended Prerequisites: Algebra II
- Credits: 1 or 2 semester course, 1 credit per semester
- **Fulfills a Mathematics course requirement for all diplomas**

## GEOMETRY

**33212 (3321-3322)**

IDOE #2532

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

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: None
- Recommended Prerequisites: Algebra I
- 2 semester course, 1 credit per semester
- **Fulfills a Mathematics course requirement for all diplomas**
- **Fulfills the Geometry/Integrated Mathematics II requirement for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas**

## APPLIED GEOMETRY

**33212J (3321J-3322J)**

IDOE #2532

*Applied Geometry* formalizes and extends students' geometric experiences from the middle grades. These critical areas comprise the Geometry course: Points, Lines, Angles, and Planes; Triangles; Quadrilaterals and Other Polygons; Circles; Transformations; and Three-dimensional Solids. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: None
- Recommended Prerequisites: Algebra I

- 4 units maximum
- **Fulfills a Mathematics course requirement for the Certificate of Completion**

## GEOMETRY HONORS

33312 (3331-3332)

IDOE #2532

*Geometry Honors* provides a more in-depth study of geometry and moves at a faster pace than Geometry. Additional topics will be covered, including the logic and reasoning in the analysis of plane and spatial relationships.

- Required Prerequisite: Algebra I

## MATHEMATICS LAB

3000

IDOE #2560

*Mathematics Lab* provides students with individualized instruction designed to support success in completing mathematics coursework aligned with Indiana's Academic Standards for Mathematics. *Mathematics Lab* is to be taken in conjunction with a Core 40 mathematics course, and the content of *Mathematics Lab* should be tightly aligned to the content of its corresponding course. *Mathematics Lab* should not be offered in conjunction with *Algebra I*; instead, schools should offer *Algebra I Lab* to provide students with rigorous support for these courses.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: None
- Recommended Prerequisites: None
- 1 semester course, 1 credit per semester, 8 credits maximum
- **Fulfills an elective course requirement for all diplomas**
- Clarifying information can be appended to the end of the course title to denote the content covered in each course. Example: *Mathematics Lab* used to support students in *Algebra II* can be recorded on the transcript as *Mathematics Lab – Algebra II*.

## APPLIED MATH LAB

3000J

IDOE #2560

*Applied Mathematics Lab* provides students with individualized instruction designed to increase math related competencies and/or mathematics coursework aligned with Indiana's Academic Standards or Content Connectors for Mathematics.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- 4 units maximum
- **Fulfills an elective course requirement for the Certificate of Completion**

## PRE-CALCULUS: ALGEBRA

3521

IDOE #2564

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

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Algebra II and Geometry

- 1 semester course, 1 credit per semester
- **Fulfills a Mathematics course requirement for all diplomas**

## **PRE-CALCULUS: TRIGONOMETRY**

**3522**

*IDOE #2566*

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

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Algebra I, Algebra II
- Recommended Prerequisites: Geometry
- 1 semester course, 1 credit per semester
- **Fulfills a Mathematics course requirement for all diplomas**

## **PRE-CALCULUS: ALGEBRA HONORS**

**3531**

*IDOE #2564*

*Pre-Calculus: Algebra Honors provides a more in-depth study of Pre-calculus and moves at a faster pace.*

- Recommended Grade Level: 10, 11, 12
- Required Prerequisites: Algebra I, Algebra II
- Recommended Prerequisites: Geometry

## **PRE-CALCULUS: TRIGONOMETRY HONORS**

**3532**

*IDOE #2566*

*Pre-Calculus: Trigonometry Honors provides a more in-depth study of Pre-calculus and moves at a faster pace. Part of this second semester will consist of beginning topics in Calculus.*

- Recommended Grade Level: 10, 11, 12
- Required Prerequisites: Algebra I, Algebra II
- Recommended Prerequisites: Geometry

## **QUANTITATIVE REASONING**

**3523**

*IDOE #2550*

*Quantitative Reasoning is a mathematics course focused on the study of numeracy, ratio and proportional reasoning, modeling, probabilistic reasoning to assess risk, and statistics. Students build knowledge of and confidence with basic mathematical/analytical concepts and operations required for problem solving, decision making, and economic productivity in real-world applications and prepare for an increasingly information-based society in which the ability to use and critically evaluate information, especially numerical information, is essential. Technology, such as computers and graphing calculators, should be used frequently. This higher-level mathematics course is designed to align with college-level quantitative reasoning courses for dual secondary/college credit. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.*

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: None
- Recommended Prerequisites: Algebra II



- 1 or 2 semester course, 1 credit per semester. Due to the level of rigor, it is recommended that this course be offered as a 2 semester, 2 credit course.
- **Fulfills a Mathematics course requirement for all diplomas**

## MULTI-DISCIPLINARY

*Multi-disciplinary courses shall be applied to an area of study to which a significant portion of the course content is closely related when establishing majors and minors.*

### BASIC SKILLS DEVELOPMENT

**8431**

IDOE #0500

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

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 credit per semester up to 8 semesters, 8 credits maximum
- **Counts as an elective for all diplomas**

### APPLIED BASIC SKILLS DEVELOPMENT

**8431J**

IDOE #0500

*Applied Basic Skills Development is a multidisciplinary course that provides students continuing opportunities to develop basic skills including: (1) reading, (2) writing, (3) listening, (4) speaking, (5) mathematical computation, (6) note taking, (7) study and organizational skills, and (8) problem-solving skills, (9) employability skills, which are essential for high school achievement and post-secondary outcomes. Determination of the skills to be emphasized in this course is based on Indiana's standards and Content Connectors, individual school corporation general curriculum plans, and the student's Individualized Education Programs (IEP) or other individualized plans. Skills selected for developmental work provide students with the ability to continue to learn in a range of different life situations and may be applied using instructional practices related to community-based instruction.*

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 8 units maximum
- **Counts as an Employability Requirement, Capstone Course or elective for the Certificate of Completion**

### CADET TEACHING EXPERIENCE

**8435**

IDOE #0502

*This elective course provides students in grades eleven (11) or twelve (12) organized exploratory teaching experiences in grades kindergarten (K) through grade nine (9). All teaching experiences should be preplanned by the high school Cadet Teaching Experience teacher-trainer and the cooperating teacher(s) who are supervising prospective teachers and providing them with pre-training experiences in one or more classes. This course provides a balance of class work relating to: (1) classroom organization, (2) classroom management, (3) the curriculum and instructional process, (4) observations of teaching, and (5) instructional experiences. Study topics and background reading provide the cadets with information concerning the teaching profession and the nature of the cadet teachers' assignments. Evaluation is based upon the cadet teachers' cooperation, day-to-day practical performance, and class work including the cadets' potential ability to teach. The total workload of the Cadet Teaching course is comparable to those for other subjects in the high school curriculum.*

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

- Credits: 1 credit per semester, up to 4 semesters, 4 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- Cadet teaching experience for high school students is limited to grades kindergarten through grade nine

## PEER TUTORING

**8487**

IDOE #0520

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

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- **Counts as an elective for all diplomas**

## CAREER INFORMATION AND EXPLORATION

**8485**

IDOE #0522

*Career Information and Exploration provides students with opportunities to learn about themselves and about various traditional and nontraditional occupations and careers. Students also gain an awareness of the type of occupational preparation or training needed for various occupations and careers. Students develop skills in: (1) employability, (2) understanding the economic process, and (3) career decision making and planning. Opportunities are provided for students to observe and participate in various job situations through opportunities such as field trips, internships, mock interviews, and guest speakers. Resume development experience and career-related testing are also provided to students.*

- Recommended Grade: 9, 10
- Required Prerequisites: none
- Recommended Prerequisites: Preparing for College and Careers
- Credits: 1 semester course, 1 credit per semester
- **Counts as a directed elective or elective for all diplomas**
- The nature of this course allows for successive semesters of instruction provided progressively advanced proficiencies and content standards are utilized.

## APPLIED CAREER INFORMATION AND EXPLORATION

**8485J**

IDOE #0522

*Applied Career Information and Exploration provides students with opportunities to learn about themselves including interests, strengths and needed supports while exploring various traditional and nontraditional occupations and careers. Students develop skills in: (1) employability, (2) understanding the economic process, and (3) career decision making and planning. Opportunities are provided for students to observe and participate in various job situations through opportunities such as community based instruction, internships, mock interviews, and guest speakers. Portfolio and resume development experience and career-related assessments may also be provided to students.*

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

## COLLEGE-ENTRANCE PREPARATION

8441

IDOE #0532

*College-Entrance Preparation utilizes individual student score reports from the PSAT, PLAN, ACCUPLACER, or other formative assessments to prepare students for college readiness assessments. Based on individual student score reports, students should receive targeted instruction to strengthen their foundations in critical reading, writing, and mathematics. This course may also include college selection and application units, to better prepare students for overall college-readiness. Being “college ready” means being prepared for any post-secondary education or training experience, including readiness for study at two-year and four-year institutions leading to a post-secondary credential (i.e., a certificate, license, Associate’s or Bachelor’s degree). A college-ready student has the necessary English and mathematics skills to qualify for and succeed in entry-level, credit-bearing college courses without the need for remedial coursework.*

- Recommended Grade: Semester 1 – grade 11; Semester 2 – grade 10
- Required Prerequisites: none
- Recommended Prerequisites: Algebra II or Analytical Algebra II (or concurrent enrollment in Algebra II)
- Credits: 1 semester course, 1 credit per semester, 4 credits maximum
- **Counts as an elective credit for all diplomas.**
- The nature of this course allows for successive semesters of instruction provided progressively advanced proficiencies and content standards are utilized.

## COMMUNITY SERVICE

8481

IDOE #0524

*Community Service is a course created by public law IC 20-30-14. Community service allows students in grades nine through twelve (HEA 1629) the opportunity to earn up to two high school credits for completion of approved community service projects or volunteer service that “relates to a course in which the student is enrolled or intends to enroll.” For each student who wishes to earn credit for community service or volunteer service under this law, the student, a teacher of the student, or a community or volunteer service organization must submit an application to the high school principal including:*

1. *Name of the community service organization or volunteer service organization the student intends to assist.*
2. *Name, address, and telephone number of the director or supervisor of the community service organization or volunteer service organization and, if different from the director or supervisor, the name, address, and telephone number of the individual assigned by the community or volunteer service organization to supervise the student at the activity site.*
3. *Nature of the community service or volunteer service performed by the student with a certification that the service performed by the student is voluntary.*
4. *Total number of hours the student intends to serve the community service organization or volunteer service organization during the school year.*
5. *Written statement by the director or supervisor of the community service organization or volunteer service organization certifying that the information included in the application is an accurate reflection of:*
6. *The student's expectations with regard to the number of hours of service contemplated to be performed; **AND** The community service organization's or the volunteer service organization's need to acquire the student's service.*
7. *Description of: The educational or career exploration benefits the student and the school should expect to gain, including the student learning standards to be achieved, from the student's community or volunteer service participation; **AND** The service and benefit the community service organization or volunteer service organization expects to gain from the student's participation.*
8. *Description of how the community or volunteer service activity relates to a course in which the student is enrolled or intends to enroll.*
9. *Manner and frequency in which the student and the community or volunteer service activity will be evaluated.*
10. *Name of the certificated school employee who will be responsible for monitoring and evaluating the student's activity and performance and assigning the student a grade for participation under this section.*

11. Any other information required by the principal/school administration.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 to 2 semester course, 1 credit per semester, up to 2 semesters, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- Students must submit an application for this course by November 1.
- Go to [www.iga.in.gov](http://www.iga.in.gov) and search for Code IC 20-30-14 for more information

## **APPLIED COMMUNITY SERVICE**

**8481J**

IDOE # 0524

*Applied Community Service is a course created by public law IC 20-30-14. Community service allows students in grades nine through twelve (HEA 1629) the opportunity to earn up to two high school credits for completion of approved community service projects or volunteer service that “relates to a course in which the student is enrolled or intends to enroll.”*

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

## **APPLIED COOPERATIVE EDUCATION**

**6162J**

IDOE #6162

*Cooperative Education is an approach to employment training that spans all career and technical education program areas through school-based instruction and on the job training. Time allocations are a minimum of fifteen hours per week of on-the-job training and approximately five hours per week of school-based instruction, focused on employability skills development. Additionally, all state and federal laws and regulations related to student employment and cooperative education must be followed.*

- Recommended Grade: 12
- Required Prerequisites: none
- Recommended Prerequisites: Preparing for College and Careers, two credits in a career and technical education course
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- Note: Course is funded at a flat rate of \$150.

## **APPLIED CITIZENSHIP AND CIVICS**

**1508J**

IDOE #1508

*Citizenship and Civics is an overview of citizenship roles and responsibilities designed to help students become independent thinkers and conscientious citizens. This course deals with political trends and behavior which citizens consider to be relevant to the most pressing issues of the day. The course provides students with experiences that will develop attitudes of citizenship within a democratic society. Topics include: (1) the policymaking process, (2) public participation in policymaking, (3) citizenship rights and responsibilities in a changing society, and (4) the relationship between modern society and government. Study of the local government should be a component of this course.*

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- **Counts as an elective for all diplomas**
- **Fulfills social studies requirement for General Diploma**

## SCIENCE

### **ADVANCED SCIENCE, SPECIAL TOPICS (L) IDOE #3092**

*Advanced Science, Special Topics is any science course that is grounded in extended laboratory, field, and literature investigations in one or more specialized science disciplines, such as anatomy/physiology, astronomy, biochemistry, botany, ecology, electromagnetism, genetics, geology, nuclear physics, organic chemistry, etc. Students enrolled in this course engage in an in-depth study of the application of science concepts, principles, and unifying themes that are unique to that particular science discipline and that address specific technological, environmental or health-related issues. Under the direction of a science advisor, students enrolled in this course will complete an end-of-course project and presentation, such as a scientific research paper or science fair project, integrating knowledge, skills, and concepts from the student's course of study. Individual projects are preferred, but group projects may be appropriate if each student in the group has specific and unique responsibilities.*

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester, may be offered for successive semesters
- **Fulfills a science requirement for all diplomas**

### **ASTRONOMY**

**4337**

*IDOE #3092*

### **METEOROLOGY**

**4338**

*IDOE #3092*

### **ECOLOGY**

**4341**

*IDOE #3092*

### **GENETICS & BIOTECHNOLOGY**

**4501**

*IDOE #3092*

### **INTRODUCTION TO THE FUNDAMENTALS OF FLIGHT**

**4601**

*IDOE #3092*

### **MARINE BIOLOGY**

**4041**

*IDOE #3092*

### **MEDICAL MICROBIOLOGY**

**4051**

*IDOE #3092*

### **ANATOMY & PHYSIOLOGY**

**4023**

*IDOE #5276*

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

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



- Recommended Prerequisites: Biology
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a science course requirement for all diplomas**

## **BIOLOGY**

### **40212 (4021-4022)**

IDOE #3024

(40212E ESL Cohort at AHS) (40212M Magnet at WHS)

*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 theory, and by evaluating and communicating the results of those investigations according to accepted procedures.*

- Recommended Grade: 10
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- **Fulfills the Biology requirement for all diplomas**

## **APPLIED BIOLOGY I**

### **40212J (4021J-4022J)**

IDOE #3024

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

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 4 units maximum
- **Fulfills as a science requirement for the Certificate of Completion**

## **BIOLOGY I HONORS (L)**

### **40312 (4031-4032)**

IDOE #3024

*Biology I Honors will include a 40% to 50% laboratory experience. Students in this course will be required to do inquiry projects/labs.*

## **BIOLOGY II HONORS (L)**

### **40356 (4035-4036)**

IDOE #3026

*Biology II is an advanced laboratory, field, and literature investigations-based course. Students enrolled in Biology II examine in greater depth the structures, functions, and processes of living organisms. Students also analyze and describe the relationship of Earth's living organisms to each other and to the environment in which they live. In this course, students refine their scientific inquiry skills as they collaboratively and independently apply their knowledge of the unifying themes of biology to biological questions and problems related to personal and community issues in the life sciences.*

- Recommended Grade: 10, 11
- Required Prerequisites: Biology I
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- **Counts as an Elective for all diplomas**
- **Fulfills a science course requirement for all diplomas**

## CHEMISTRY I (L)

44212 (4421-4422)

IDOE #3064

44212M Magnet at WHS

*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, by designing and conducting investigations guided by theory, and by evaluating and communicating the results of those investigations according to accepted procedures*

- Recommended Grade: 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Algebra II (can be taken concurrently)
- Credits: 2 semester course, 1 credit per semester
- **Fulfills a science (physical) course requirement for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

## CHEMISTRY I HONORS (L)

44312 (4431-4432)

IDOE #3064

44312M Magnet at WHS (Grade 10)

*Chemistry I Honors will include a 40% to 50% laboratory experience. Students in this course are required to do inquiry projects/labs.*

- Recommended Grade Level: 10, 11, 12
- Recommended Prerequisite: Algebra II
- **QMR: Qualifies as a quantitative reasoning course**

## CHEMISTRY II HONORS (L)

44356 (4435-4436)

IDOE #3066

*Chemistry II is an extended laboratory, field, and literature investigations-based course. Students enrolled in Chemistry II examine the chemical reactions of matter in living and nonliving materials. Based on the unifying themes of chemistry and the application of physical and mathematical models of the interactions of matter, students use the methods of scientific inquiry to answer chemical questions and solve problems concerning personal needs and community issues related to chemistry.*

- Recommended Grade: 11, 12
- Required Prerequisites: Chemistry I
- Recommended Prerequisites: Algebra II
- Credits: 2 semester course, 1 credit per semester
- **Counts as an elective for all diplomas**
- **Fulfills a science course requirement for all diplomas**
- **QMR: Qualifies as a quantitative reasoning course**

## EARTH AND SPACE SCIENCE I

42612 (4261-4262)

IDOE #3044

42612E (ESL at Adams)

*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 theory, and by evaluating and communicating the results of those investigations according to accepted procedures.*

- Recommended Grade: 9, 10, 11, 12

- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- **Counts as an elective for all diplomas**
- **Fulfills a science course requirement for all diplomas**

## **APPLIED EARTH AND SPACE SCIENCE**

**42612J (4261J-4262J)**

IDOE #3044

*Applied Earth and Space Science I is a course focused on the following core topics: study of the earth's layers; atmosphere and hydrosphere; structure and scale of the universe; the solar system and earth processes. Students analyze and describe earth's interconnected systems and examine how earth's materials, landforms, and continents are modified across geological time. Instruction should focus on developing student understanding that scientific knowledge is gained from observation and experimentation, by conducting investigations, and evaluating and communicating the results of those investigations. This course may include a variety of learning experiences and tools to support the process of investigation, data collection, and analysis.*

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

## **EARTH AND SPACE SCIENCE I HONORS (L)**

**43312 (4331-4332)**

IDOE #3044

*Earth and Space Science I Honors includes a 40% to 50% laboratory experience. Students in this course are required to do inquiry projects/labs.*

## **EARTH AND SPACE SCIENCE II HONORS**

**90812 (9081-9082)**

IDOE #3046

*Earth and Space Science II is an extended laboratory, field, and literature investigations-based course whereby students apply concepts from other scientific disciplines in synthesizing theoretical models of earth and its interactions with the macrocosm. Students enrolled in this course examine various earth and space science phenomena, such as the structure, composition, and interconnected systems of earth and the various processes that shape it, as well as earth's lithosphere, atmosphere, hydrosphere, and celestial environment. Students analyze and apply the unifying themes of earth and space science as part of scientific inquiry aimed at investigating earth and space science problems related to personal needs and community issues.*

- Recommended Grade: 10
- Required Prerequisites: none
- Recommended Prerequisites: Earth and Space Science I
- Credits: 2 semester course, 1 credit per semester
- **Counts as an elective for all diplomas**
- **Fulfills a science course requirement for all diplomas**

## **ENVIRONMENTAL SCIENCE (L)**

**40634 (4063-4064)**

IDOE #3010

*Environmental Science is an interdisciplinary course that integrates biology, earth science, chemistry, and other disciplines. Students enrolled in this course conduct in-depth scientific studies of environmental systems, flow of matter and energy, natural disasters, environmental policies, biodiversity, population, pollution, and natural and anthropogenic resource cycles. Students formulate, design, and carry out laboratory and field investigations as an essential course component. Students completing Environmental Science, acquire the essential tools for understanding the complexities of national and global environmental systems.*

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Two credits science coursework
- Credits: 2 semester course, 1 credit per semester
- **Counts as an elective for all diplomas**
- **Fulfills a science (life) course requirement for all diplomas**

## INTEGRATED CHEMISTRY-PHYSICS (L)

**40134 (4013-4014)**

IDOE#3108

*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 by designing and conducting investigations guided by theory and by evaluating and communicating the results of those investigations according to accepted procedures.*

- Recommended Grade: 9
- Required Prerequisites: none
- Recommended Prerequisites: Algebra I (may be taken concurrently with this course)
- Credits: 2 semester course, 1 credit per semester
- **Counts as an elective for all diplomas**
- **Fulfills a science (physical) course requirement for all diplomas**
- **QMR: Qualifies as a Quantitative Reasoning course**

## LIFE SCIENCE (L)

**4011**

IDOE #3030

*Life Science is an introduction to biology course. Students develop problem-solving skills and strategies while performing laboratory and field investigations of fundamental biological concepts and principles. Students explore the functions and processes of cells within all living organisms, the sources and patterns of genetic inheritance and variation leading to biodiversity, and the relationships of living organisms to each other and to the environment as a whole.*

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- **Counts as a science course for the General Diploma only**
- **Fulfills a science requirement for all diplomas**

## PHYSICS I (L)

**46212 (4621-4622)**

IDOE #3084

*Physics I is a course focused on the following core topics: constant velocity; constant acceleration; forces; energy; linear momentum in one dimension; simple harmonic oscillating systems; mechanical waves and sound; simple circuit analysis. Instruction should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation, by designing and conducting investigations guided by theory, and by evaluating and communicating the results of those investigations according to accepted procedures.*

- Recommended Grade: 9, 10, 11
- Required Prerequisites: none
- Recommended Prerequisites: Algebra I
- Credits: 2 semester course, 1 credit per semester
- **Counts as an elective for all diplomas**
- **Fulfills a science (physical) course requirement for all diplomas**
- **QMR: Qualifies as a Quantitative Reasoning course**

## SCIENCE RESEARCH, INDEPENDENT STUDY (L)

**40034 (4003-4004)**

IDOE #3008

*Science Research, Independent Study is a course that provides students with unique opportunities for independent, in-depth study of one or more specific scientific problems. Students develop a familiarity with the laboratory procedures used in a given educational, research, or industrial setting or a variety of such settings. Students enrolled in this course will complete a science fair project to be exhibited at a regional science fair and/or state science symposium, an end-of-course project, such as a scientific research paper, or some other suitable presentation of their findings*

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Two credits in Core 40 science coursework (this course may be taken concurrently with a Core 40 science course)
- Credits: 2 semester course, 1 credit per semester
- **Counts as a science course for all diplomas**

## SOCIAL STUDIES

### CURRENT PROBLEMS, ISSUES, AND EVENTS

5321

IDOE #1512

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

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester. Course may be repeated for credit if the content of the course changes.
- **Counts as an elective for all diplomas; fulfills social studies requirement for General Diploma.**

### APPLIED CURRENT PROBLEMS, ISSUES, and EVENTS

5321J

IDOE #1512

*Applied Current Problems, Issues, and Events gives students the opportunity to apply investigative and inquiry techniques to the study of problems or issues existing in the class, school, community, state, country or world. Students develop competence in (1) recognizing cause and effect relationships, (2) recognizing fallacies in reasoning and propaganda devices.*

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites:
- Applied Units: 2 units maximum
- **Counts as an elective, Employability or Social Studies Requirement for the Certificate of Completion**

### ECONOMICS

5161 or 5161DC

IDOE #1514

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

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- **Counts as an elective for all diplomas**
- **Fulfills the Economics requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas**
- **QMR: Qualifies as a quantitative reasoning course (NOTE: Economics will no longer be considered a quantitative reasoning course beginning with the 2025 cohort.)**
- **Fulfills a Social Studies requirement for the General Diploma only**



## APPLIED ECONOMICS

5161J

IDOE #1514

*Applied Economics examines the allocation of resources and their uses for satisfying human needs and wants. The course identifies economic behaviors of consumers, producers, savers, investors, workers, voters, institutions, governments, and societies in making decisions. Students explain that because resources are limited, people must make choices and understand the role that supply, demand, prices, and profits play in a market economy. Key elements of the course include the study of scarcity and economic reasoning; supply and demand; market structures; the role of government; national economic performance; the role of financial institutions; economic stabilization; and trade. Students may be offered opportunities to better understand and apply course content through a variety of instructional strategies including project- and community-based instruction and real world experiences.*

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 2 units maximum
- **Counts as a Social Studies Requirement or elective for the Certificate of Completion**

## ETHNIC STUDIES

5191

IDOE #1516

*Ethnic Studies provides opportunities to broaden students' perspectives concerning lifestyles and cultural patterns of ethnic groups in the United States. This course will either focus on a particular ethnic group or groups, or use a comparative approach to the study of patterns of cultural development, immigration, and assimilation, as well as the contributions of specific ethnic or cultural groups. The course may also include analysis of the political impact of ethnic diversity in the United States.*

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit
- **Counts as an elective for all diplomas**
- Must be offered at least once per school year

## GEOGRAPHY AND HISTORY OF THE WORLD

52312 (5231-5232)

IDOE #1570

*Geography and History of the World is designed to enable students to use geographical tools, skills and historical concepts to deepen their understanding of major global themes including the origin and spread of world religions; exploration; conquest, and imperialism; urbanization; and innovations and revolutions. Geographical and historical skills include forming research questions, acquiring information by investigating a variety of primary and secondary sources, organizing information by creating graphic representations, analyzing information to determine and explain patterns and trends, planning for the future, and documenting and presenting findings orally or in writing. The historical geography concepts used to explore global themes include change over time, origin, diffusion, physical systems, cultural landscapes, and spatial distribution/patterns and interaction/relationships. Students use the knowledge, tools, and skills obtained from this course in order to analyze, evaluate, and make predictions about major global developments. This course is designed to nurture perceptive and responsible citizenship, to encourage and support the development of critical thinking skills and lifelong learning, and to help prepare Indiana students for the 21st Century.*

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- **Counts as a Social Studies requirement for the General Diploma**
- **Counts as an elective for all diplomas**

- **Fulfills the Geography History of the World/World History and Civilization graduation requirement for the Core 40, Core 40 with Academic Honors and Core**

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

**52312J (5231J-5232J)**

IDOE #1570

*Applied Geography and History of the World is designed to enable students to use geographical tools, skills and historical concepts to apply their understanding of major global themes including the origin and spread of world religions; exploration; conquest, and imperialism; urbanization; and innovations and revolutions. Geographical and historical skills include forming research questions, acquiring information by investigating a variety of sources, organizing information by creating graphic representations, analyzing information to understand, determine and explain patterns and trends, planning for the future, and documenting and presenting findings orally or in writing. Students use the knowledge, tools, and skills obtained from this course in order to understand, analyze, evaluate, and make predictions about major global developments. This course is designed to nurture perceptive and responsible citizenship, to encourage and support the development of critical thinking skills and lifelong learning, and to help prepare Indiana students for the 21st Century.*

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 4 units maximum

- **Counts as a Social Studies Requirement or elective for the Certificate of Completion**

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

**53312 (5331-5332)**

IDOE #1570

*Geography and History of the World Honors provides a more in-depth study of geographical skills and historical concepts to broaden students' experiences by analyzing the impact of globalization and contemporary issues by making predictions, synthesizing information, and communicating their understanding of global developments.*

## **INDIANA STUDIES**

**5171**

IDOE #1518

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

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- **Counts as an elective for all diplomas**
- **Fulfills course requirement for General Diploma**
- Must be offered at least once per school year

## **INTERNATIONAL RELATIONS**

**5183**

IDOE #1520

*International Relations provides a survey of the formal relations among sovereign states in the international system, emphasizing the operation of diplomacy. The procedures for settlement of disputes and various methods of international conflict resolution are included. This course examines power, interdependence, global development, and international organizations.*

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- **Counts as an elective for all diplomas**
- **Fulfills course requirement for General Diploma**

## LAW EDUCATION

**5181**

IDOE #1526

*Law Education provides an understanding of the American legal system and its basis in the United States Constitution. The course is designed to promote an understanding of society and its system of laws by indicating how citizens may effectively function within the law. Ways of dealing with interpersonal conflict in order to secure constructive change are included, along with the development of critical thinking and problem solving skills. Case studies, field trips, simulations, and mock trials will be used in this course whenever feasible.*

- Recommended Grade: 11,12
- Required Prerequisites: none
- Recommended Prerequisites: United States Government or teacher recommendation
- Credits: 1 semester course, 1 credit per semester
- **Counts as an elective for all diplomas**
- **Fulfills course requirement for General Diploma**

## PSYCHOLOGY

**5221**

IDOE #1532

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

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 to 2 semester course, 1 credit per semester
- **Counts as an elective for all diplomas**
- **Fulfills course requirement for General Diploma**

## SOCIOLOGY

**5061 or 5061DC**

IDOE #1534

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

will be examined. Influences on group behavior and social problems are included in the course. Students also analyze the role of individuals in the community and social problems in today's world.

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- **Counts as an elective for all diplomas**
- **Fulfills course requirement for General Diploma**

## TOPICS IN SOCIAL SCIENCE

**4975**

IDOE #1550

*Topics in Social Science provides students with an opportunity for in-depth study of a specific topic, theme, or concept in one of the social science disciplines such as anthropology, archeology, economics, geography, political science, psychology, or sociology. It is also possible to focus the course on more than one discipline. A subtitle should be included to give a clear idea of the course content. For example, a course focusing on a specific subject in political science might be entitled, "Topics in Social Science: Comparative Government." Courses taught under this title should emphasize scientific methods of inquiry and help students develop effective research and thinking skills.*

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- **Counts as an elective for all diplomas**
- **Fulfills course requirement for General Diploma**

## UNITED STATES GOVERNMENT

**4961**

IDOE #1540

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

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- **Fulfills Government requirement for all diplomas**
- **Students are required to take the naturalization test for citizenship per SEA 132 (New 2019- 2020).**
- **SEA 398 (Spring 2020) states that schools will be required to issue the naturalization test, report results, and post test data results starting in November**

## APPLIED UNITED STATES GOVERNMENT

**4961J**

IDOE # 1540

*Applied United States Government provides a framework for understanding the purposes, principles, and practices of constitutional representative democracy in the United States. Responsible and effective participation of citizens is stressed. Students understand the nature of citizenship, politics, and governments; the rights and responsibilities of citizens; and how these are part of local, state, and national government. Students examine how the United States*

*Constitution protects rights and provides the structure and functions of various levels of government. How the United States interacts with other nations and the government's role in world affairs will be included. Using primary and secondary resources, students will articulate, evaluate, and defend positions on political issues. As a result, they will recognize their own impact, the role of individuals and groups in government, politics, and civic activities and the need for civic and political engagement of citizens in the United States.*

- Recommended Grade: 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied units: 2 units maximum
- **Counts as a social studies requirement or elective for the Certificate of Completion**

## **UNITED STATES HISTORY**

**51212 (5121-5122)**

IDOE #1542

*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 21st century. After reviewing fundamental themes in the early development of the nation, students are expected to identify and review significant events, persons, and movements in the early development of the nation. The course then gives major emphasis to the interaction of key events, people, and political, economic, social, and cultural influences in national developments from the late nineteenth century through the present as they relate to life in Indiana and the United States. Students are expected to trace and analyze chronological periods and examine the significant themes and concepts in U.S. History. Students develop historical thinking and research skills and use primary and secondary sources to explore topical issues and to understand the cause for changes in the nation over time.*

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- **Fulfills the US History requirement for all diplomas**

## **APPLIED UNITED STATES HISTORY**

**51212J (5121J-5122J)**

IDOE #1542

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

- Recommended Grade: none
- Required Prerequisites: none
- Recommended Prerequisites: none
- Applied Units: 4 units maximum
- **Counts as a Social Studies Requirement or elective for the Certificate of Completion**

## **WORLD HISTORY AND CIVILIZATION**

**48212 (4821-4822)**

IDOE #1548

*World History and Civilization emphasizes events and developments in the past that greatly affected large numbers of people across broad areas and that significantly influenced peoples and places in subsequent eras. Key events related to people and places as well as transcultural interaction and exchanges are examined in this course. Students are expected to compare and contrast events and developments involving diverse peoples and civilizations*

*in different regions of the world. They will examine examples of continuity and change, universality and particularity, and unity and diversity among various peoples and cultures from the past to the present. Students are also expected to practice and process skills of historical thinking and research and apply content knowledge to the practice of thinking and inquiry skills and processes. There will be continuous and pervasive interactions of processes and content, skills and substance, in the teaching and learning of history.*

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



# WORLD LANGUAGES

## LEVEL I

### ARABIC I

27634 (2763-2764)

IDOE #2200

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

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

### CHINESE I

90912 (9091-9092)

IDOE #2000

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

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

### FRENCH I

20212 (2021-2022)

IDOE #2020

*French I, a course based on Indiana's Academic Standards for World Languages, introduces students to effective strategies for beginning French language learning, and to various aspects of French-speaking culture. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and*

*respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief guided conversations on familiar topics, and write short passages with guidance. This course also emphasizes the development of reading and listening comprehension skills, such as reading isolated words and phrases in a situational context and comprehending brief written or oral directions. Additionally, students will examine the practices, products and perspectives of French-speaking culture; recognize basic routine practices of the target culture; and recognize and use situation-appropriate non-verbal communication. This course further emphasizes making connections across content areas and the application of understanding French language and culture outside of the classroom.*

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

## GERMAN I

22212 (2221-2222)

IDOE #2040

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

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

## LATIN I

24212 (2421-2422)

IDOE #2080

*Latin I, a course based on Indiana's Academic Standards for World Languages, introduces students to effective strategies for beginning Latin language learning, and to various aspects of classical Roman culture. This course emphasizes the development of reading and listening comprehension skills, such as reading isolated words and phrases in a situational context and comprehending brief written or oral directions. Though interpersonal communication is not an explicit emphasis of this course, opportunities may be provided for students to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief guided conversations on familiar topics, and write short passages with guidance. Additionally, students will examine the practices, products and perspectives of classical Roman culture; recognize basic routine practices of the target culture; and recognize and use situation-appropriate non-verbal communication. This course further emphasizes making connections across content areas and the application of understanding Latin language and culture outside of the classroom.*

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

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

## SPANISH I

27212 (2721-2722)

IDOE #2120

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

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

## LEVEL II

### ARABIC II

27656 (2765-2766)

IDOE #2202

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

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

## CHINESE II

90934 (9093-9094)

IDOE #2002

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

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

## FRENCH II

20234 (2023-2024)

IDOE #2022

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

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: French I
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a World Language requirement for the Core 40 with Academic Honors Diplomas**

## GERMAN II

22234 (2223-2224)

IDOE #2042

*German II, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for German language learning by encouraging the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write cohesive passages with greater independence and using appropriate formats. This course also emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and comprehending longer written or oral directions. Students will*

*address the presentational mode by presenting prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will describe the practices, products and perspectives of German-speaking culture; report on basic family and social practices of the target culture; and describe contributions from the target culture. This course further emphasizes making connections across content areas and the application of understanding German language and culture outside of the classroom.*

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

## **LATIN II**

**24234 (2423-2424)**

IDOE #2082

*Latin II, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Latin language learning by encouraging the use of the language and cultural understanding for self-directed purposes. This course emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and comprehending longer written or oral directions. Students will address the presentational mode by presenting prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Though interpersonal communication is not an explicit emphasis of this course, opportunities may be provided for students to make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write cohesive passages with greater independence and using appropriate formats. Additionally, students will describe the practices, products and perspectives of classical Roman culture; report on basic family and social practices of the target culture; and describe contributions from the target culture. This course further emphasizes making connections across content areas and the application of understanding Latin language and culture outside of the classroom.*

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

## **SPANISH II**

**27234 (2723-2724)**

IDOE #2122

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

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Spanish I
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester



- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma**

## LEVEL III

### ARABIC III

**22045 (2204-2205)**

IDOE #2204

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

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Arabic I and II
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma**

### CHINESE III

**90956 (9095-9096)**

IDOE #2004

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

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Chinese I and II
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma**



### FRENCH III

20256 (2025-2026)

IDOE #2024

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

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: French I and II
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma**

### GERMAN III

22256 (2225-2226)

IDOE #2044

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

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: German I and II
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma**

### LATIN III

24256 (2425-2426)

IDOE #2084

*Latin III, a course based on Indiana's Academic Standards for World Languages, builds upon effective strategies for Latin language learning by facilitating the use of the language and cultural understanding for self-directed purposes. This course emphasizes the continued development of reading and listening comprehension skills, such as using cognates, synonyms and antonyms to derive meaning from written and oral information, as well as*

comprehending details written or oral directions. Students will address the presentational mode by presenting student-created material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Though interpersonal communication is not an explicit emphasis of this course, opportunities may be provided for students to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write cohesive information with greater detail. Additionally, students will continue to develop understanding of classical Roman culture through recognition of the interrelations among the practices, products and perspectives of the target culture; discussion of significant events in the target culture; and investigation of elements that shape cultural identity in the target culture. This course further emphasizes making connections across content areas as well the application of understanding Latin language and culture outside of the classroom.

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Latin I and II
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma**

### SPANISH III

27256 (2725-2726)

IDOE #2124

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

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: Spanish I and II
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma**

## LEVEL IV

### CHINESE IV

90978 (9097-9098)

IDOE #2006

Chinese IV, a course based on Indiana's Academic Standards for World Languages, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral information are expanded through emphasis on practicing speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop an understanding of Chinese-speaking culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target culture and the student's own culture. This course further emphasizes making connections across content

areas through the design of activities and materials that integrate the target language and culture with concepts and skills from other content areas. The use and influence of the Chinese language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native Chinese speakers.

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Chinese I, II and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma**

## FRENCH IV

20278 (2027-2028)

IDOE #2026

*French IV, a course based on Indiana's Academic Standards for World Languages, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral information are expanded through emphasis on practicing speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop understanding of French-speaking culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target culture and the student's own culture. This course further emphasizes making connections across content areas through the design of activities and materials that integrate the target language and culture with concepts and skills from other content areas. The use and influence of the French language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native French speakers.*

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: French I, II and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma**

## GERMAN IV

22278 (2227-2228)

IDOE #2046

*German IV, a course based on Indiana's Academic Standards for World Languages, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral information are expanded through emphasis on practicing speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop understanding of German-speaking culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target culture and the student's own culture. This course further emphasizes making connections across content areas through the design of activities and materials that integrate the target language and culture with concepts and skills from other content areas. The use and influence of the German language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native German speakers.*

- Recommended Grade: 10, 11, 12
- Required Prerequisites: German I, II and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- **Counts as a directed elective or elective for all diplomas**

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

## **LATIN IV**

**24278 (2427-2428)**

*IDOE #2086*

*Latin IV, a course based on Indiana's Academic Standards for World Languages, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. Students will continue to develop presentation skills by giving presentations on cultural topics and presenting culturally authentic material, such as plays. This course emphasizes the continued development of reading and listening comprehension skills, such as guessing meaning in familiar and unfamiliar contexts and using elements of word formation to expand vocabulary and derive meaning. Though interpersonal communication is not an explicit emphasis of this course, opportunities may be provided for students to practice strategies that facilitate advanced oral and written communication, such as circumlocution. Additionally, students will continue to develop understanding of classical Roman culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target culture and the student's own culture. This course further emphasizes making connections across content areas as well as exploration of the use and influence of the Latin language and culture in the community beyond the classroom through activities such as the identification and evaluation of resources intended for those fluent in Latin.*

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Latin I, II and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma**

## **SPANISH IV**

**27278 (2727-2728)**

*IDOE #2126*

*Spanish IV, a course based on Indiana's Academic Standards for World Languages, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral information are expanded through emphasis on practicing speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop an understanding of Spanish-speaking culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target culture and the student's own culture. This course further emphasizes making connections across content areas through the design of activities and materials that integrate the target language and culture with concepts and skills from other content areas. The use and influence of the Spanish language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native Spanish speakers.*

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Spanish I, II, and III
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma**

## **LEVEL V**

### **SPANISH V**

**27290 (2729-2730)**

*IDOE #2128*

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

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Spanish I, II, III, and IV
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma**

## LEVEL VI

### SPANISH VI

**27312 (2731-2732)**

IDOE #2130

*Spanish VI, a course based on Indiana's Academic Standards for World Languages, provides a context for students to demonstrate the ability to use the target language to interact in a wide range of culturally and socially authentic and/or simulated situations. This course focuses on the degree of ease and accuracy with which students are able to communicate in the target language, as well as the culturally appropriate nature of the communication. Additionally, students will further develop understanding of Spanish-speaking culture through discussing changes in interrelations among and factors that influence the practices, products and perspectives of the target culture; and researching and comparing the origins of idiomatic, colloquial and proverbial expressions in the target language. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the use of the Spanish language and cultural understanding outside of the classroom.*

- Recommended Grade: 10, 11, 12
- Required Prerequisites: Spanish I, II, III, IV, and V
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma**

## OTHER WORLD LANGUAGE COURSES

### LANGUAGE FOR HERITAGE SPEAKERS I

**27356 (2735-2736) SPANISH**

IDOE #2190

*Language for Heritage Speakers I is a course designed for heritage speakers of world languages who have demonstrated some degree of oral proficiency. The purpose of this course is to enable Heritage Language Learners to increase proficiency and bi-literacy in their native language by providing opportunities to improve reading and listening comprehension, as well as writing and grammar skills. Special attention will be given to grammar and vocabulary of the standard language, as well as to the importance of biculturalism and bilingualism in the United States today. Placement of students and development of the course curriculum is dependent upon the population of students enrolled in this course.*

- Recommended Grade: 9, 10, 11, 12



- Required Prerequisites: none
- Recommended Prerequisites: none, or placement as determined at local level
- Credits: 2 semester course, 1 credit per semester
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma**

## LANGUAGE FOR HERITAGE SPEAKERS II

27378 (2737-2738) SPANISH

IDOE #2192

*Language for Heritage Speakers II builds upon Language for Heritage Speakers I, and is a course designed for heritage speakers of world languages who have demonstrated some degree of oral proficiency. The purpose of this course is to enable Heritage Language Learners to increase proficiency and bi-literacy in their native language by providing opportunities to improve reading and listening comprehension, as well as writing and grammar skills. Special attention will be given to grammar and vocabulary of the standard language, as well as to the importance of biculturalism and bilingualism in the United States today. Placement of students and development of the course curriculum is dependent upon the population of students enrolled in this course*

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Language for Heritage Language Learners I, or placement as determined at local level
- Credits: 2 semester course, 1 credit per semester
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma**

## LANGUAGE FOR HERITAGE SPEAKERS III

27390 (2739-2740) SPANISH

IDOE #2194

*Language for Heritage Speakers III builds upon Language for Heritage Speakers II, and is a course designed for heritage speakers of world languages who have demonstrated some degree of oral proficiency. The purpose of this course is to enable Heritage Language Learners to increase proficiency and bi-literacy in their native language by providing opportunities to improve reading and listening comprehension, as well as writing and grammar skills. Special attention will be given to grammar and vocabulary of the standard language, as well as to the importance of biculturalism and bilingualism in the United States today. Placement of students and development of the course curriculum is dependent upon the population of students enrolled in this course.*

- Recommended Grade: 9, 10, 11, 12
- Required Prerequisites: none
- Recommended Prerequisites: Language for Heritage Language Learners II, or placement as determined at local level
- Credits: 2 semester course, 1 credit per semester
- **Counts as a directed elective or elective for all diplomas**
- **Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma**



## JUNIOR RESERVE OFFICER TRAINING CORPS (JROTC)

*This course is designed to develop: (1) citizenship and patriotism, (2) self-discipline, (3) physical fitness, (4) reliance and leadership, and (5) the skills used in decision making, communications, and problem-solving. The course content and experiences enable the students to understand the role of the military in support of national objectives and to become familiar with basic military knowledge, gender equity issues, benefits, and requirements. Topics to be included in the course are: (1) military history, (2) ROTC in the military, (3) substance abuse, (4) map reading, (5) marksmanship and firearm safety, (6) military drill, (7) field activities, (8) reserve components, and (9) first aid and hygiene. Opportunities are provided to explore the qualities and traits of courage, self-sacrifice, and integrity. Junior Reserve Officer Training Corps programs must be approved by and meet the requirements of the appropriate military organization. **Participation in the JROTC program in no way incurs any obligation to enlist in the United States Armed Forces after graduation.***

- Credits: 1 semester course, 1 credit per semester, up to 8 semesters, 8 credits maximum.
- Counts as an elective for all diplomas

## RILEY HIGH SCHOOL (MARINES)

### LEADERSHIP EDUCATION I

**9100**

IDOE #0516

*Designed for high school freshmen or sophomores, Leadership Education I introduces cadets to the major subjects to lay a foundation for the grade levels to follow. The curriculum focuses on leadership tenets; physical fitness and health; drill and ceremonies; and military organization and orientation. The Leadership Education course materials provided to support each grade level of the MCJROTC are the textbook, student workbook and training aids, and films and visual materials.*

- Recommended Grade Level: 9, 10

### LEADERSHIP EDUCATION II

**9102**

IDOE #0516

*The second year course is designed for high school sophomores or juniors. It explores each subject in greater detail than Leadership Education I. Some leadership roles are assigned to second year cadets.*

- Recommended Grade Level: 10-11

### LEADERSHIP EDUCATION III

**9104**

IDOE #0516

*The third year course is designed for high school juniors or seniors. It emphasizes leadership training and leadership application. The majority of the cadet instructors are third year cadets.*

- Recommended Grade Level: 11, 12

### SUMMER LEADERSHIP ACADEMY

**4459**

IDOE #0516

*Summer Leadership Academy (SLA) is a joint Junior ROTC course offered only in the summer. This course is open to JROTC cadets who have successfully completed at least one semester of JROTC. The purpose of the SLA is to prepare cadets to assume leadership roles within their Corps of Cadets. The course consists of classroom instruction on topics such as leadership principles, the importance of teamwork, the role of the officer and the NCO, authority and respect, patriotism, etiquette and protocol, and situational leadership. There is also a strong emphasis on drill and ceremonies, physical fitness, and team sports. **Cadets who successfully complete this course will receive 1/2 semester credit.***

- Recommended Grade Level: 9, 10, 11
- PREREQUISITE: 1 semester of JROTC .5 credit course

***South Bend Community School Corporation***  
**Secondary Administration Staff**

<b>Clay High School</b>			
<b>Principal</b>	Kemilyn Schreiber	<b>Main Office</b>	574-393-4900
<b>Assistant Principals</b>	Linda Wash	<b>Main Fax</b>	574-243-7005
<b>Associate Dean of Students</b>		<b>Student Management</b>	574-393-4908
<b>Athletic Director / Dean of Students</b>	Al Hartman	<b>Athletic Office</b>	574-393-4923
<b>Head Counselor</b>	Catherine Henderson	<b>Guidance Office</b>	574-393-4914
<b>Magnet Coordinator</b>	Mary Beard	<b>Magnet Office</b>	
<b>John Adams High School</b>			
<b>Principal</b>	Jim Seitz	<b>Main Office</b>	574-393-5300
<b>Assistant Principals</b>	Denise Boyd Jeanne Dietrich Keith Lewis	<b>Main Fax</b>	574-283-7704
<b>Dean of Students and Athletics</b>	Dawn Huff	<b>Athletic Office</b>	574-393-5324
<b>Head Counselor</b>	Tammy Berebitzky	<b>Guidance Office</b>	574-393-5315
<b>IB Coordinator</b>		<b>IB Coordinator Office</b>	574-393-5321
<b>Riley High School</b>			
<b>Principal</b>	Shawn Henderson	<b>Main Office</b>	574-393-5100
<b>Assistant Principals</b>	Jory Hardman Lori Anderson	<b>Main Fax</b>	574-283-8405
<b>Associate Dean of Students</b>	Yul Thomas Jr.	<b>Main Office</b>	574-393-5100
<b>Athletic Director</b>	Seabe Gavin	<b>Athletic Office</b>	574-393-5123
<b>Head Counselor</b>	Charan Richards	<b>Guidance Office</b>	574-393-5115
<b>Magnet Coordinator</b>	Ed Marang	<b>Magnet Office</b>	
<b>Rise Up Academy</b>			
<b>Principal</b>	Francois Bayingana	<b>Main Office</b>	574-393-3500

<b>Assistant Principals</b>	Joseph Somers	<b>Assist Principal Phone</b>	574-393-3529
<b>Head Counselor</b>		<b>Guidance Office</b>	574-393-3514
<b>Washington High School</b>			
<b>Principal</b>	Kenard Robinson	<b>Main Office</b>	574-393-5500
<b>Assistant Principal</b>	Jennifer McGhee	<b>Main Fax</b>	574-283-7205
<b>Assistant Principal</b>	Adam Tenbarger		
<b>Athletic Director</b>	Garland Hudson	<b>Athletic Office</b>	574-393-5522
<b>Head Counselor</b>	Arnez Lee	<b>Guidance Office</b>	574-393-5514
<b>Magnet Coordinator</b>	Theresa Godette	<b>Magnet Office</b>	