



**PIKE HIGH SCHOOL  
ACADEMIC PLANNER  
AND  
COURSE DESCRIPTION BOOK  
2022-2023**

**PIKE HIGH SCHOOL**  
5401 West 71st Street  
**PIKE FRESHMAN CENTER**  
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## **MISSION STATEMENT**

Pike High School, a culturally diverse public educational institution, engages students through exceptional learning opportunities in a safe, secure, and stimulating environment. The staff, parents, and community work as partners to enhance the academic, social, physical, and ethical development of all students. Life-long learning is encouraged through an emphasis on a challenging academic curriculum and career choices.

**THIS PLANNER AND COURSE DESCRIPTION BOOK SHOULD ANSWER MOST QUESTIONS YOU WILL HAVE REGARDING SCHEDULING PROCESSES, CURRICULAR POLICIES AND PROCEDURES, AND FUTURE CAREER PLANNING. ADDITIONAL INFORMATION IS IN THE STUDENT HANDBOOK. PLEASE BE AWARE THE INFORMATION CONTAINED HEREIN IS SUBJECT TO CHANGE DUE TO INDIANA DEPARTMENT OF EDUCATION RULE AND POLICY CHANGES.**

## **GUIDANCE**

### **COUNSELING STAFF FOR PIKE HIGH SCHOOL AND PIKE FRESHMAN CENTER**

The Pike High School Counseling Department is staffed by professional, licensed school counselors who provide comprehensive services to students, parents, and staff. We strive to empower students to achieve their full potential, both academically and personally, so that they may become productive, responsible members of the local and global community. We believe in providing a program of counseling which introduces a broad range of post-secondary opportunities to our students and encourage our families to research those opportunities in order to make informed decisions. Students and parents are encouraged to contact the Guidance Office with any questions or concerns.

|                 |                                                                   |              |
|-----------------|-------------------------------------------------------------------|--------------|
| Alise Berty     | Department Chair, 11 <sup>th</sup> /12 <sup>th</sup> IB Counselor | 317-387-2605 |
| Tara McPherson  | PHS Guidance Secretary                                            | 317-387-2605 |
| Kathy Zimmerman | PHS Registrar (last names A – K)                                  | 317-347-8618 |
| Shanea Johnson  | PHS Registrar (last names L – Z)                                  | 317-387-2628 |

***The following distribution of student last name-to-counselors is subject to change.***

| <b>Counselors:</b> |                                      |              |
|--------------------|--------------------------------------|--------------|
| <b>Name</b>        | <b>Students Served (grades 9-12)</b> | <b>Phone</b> |
| Tiffany Blanks     | A – B                                | 317-347-8615 |
| Lynn Starkey       | C - Fa                               | 317-347-8616 |
| Randi Cialdella    | Fe - H                               | 317-347-8617 |
| Jasmin Bankhead    | I – Mar                              | 317-387-2626 |
| Dorian Jenkins     | Mas - Pl                             | 317-387-2718 |
| Harry Mamlin       | Po – Step                            | 317-387-2625 |
| Qiana Miller       | Stev - Z                             | 317-387-2624 |

## **COURSE SCHEDULING PROCESS**

**8<sup>th</sup> Grade Students** – The course selection process takes place at each of the Pike Township Middle Schools. The Guidance Department Chair, PHS Counselors, and AP/IB/DC Coordinator present course information to students and encourage all students to choose a rigorous curriculum for freshman year.

**Curriculum Night** – An evening question and answer night is hosted for 8<sup>th</sup> grade students and parents in January. Parents are able to ask questions and meet representatives from every department. Information is distributed detailing the opportunities for students to participate in Honors, Advanced Placement, Dual Credit, and International Baccalaureate coursework.

**9<sup>th</sup> Grade Orientation** – In August, after student schedules are available, parents and students are invited to an orientation program and have the opportunity to find classrooms and check out their locker locations and combinations.

**9<sup>th</sup> Grade Course Selections** - Course selections are developed in great detail. Students complete a four-year course plan and discuss post-secondary goals. We ask parents to check student selections, and they will be double-checked by the counselor at the time of the freshman conference.

**10<sup>th</sup> Grade Course Selections** – Course selections are finalized at the time of the annual sophomore conference. Test scores from any graduation exams and the PSAT exams are available to aid in planning.

**11<sup>th</sup> Grade Course Selections** – Course selections are checked closely to make sure that students have completed the requirements for graduation, Core 40, the Academic Honors Diploma, and/or their post-secondary plans. Students are advised to register for spring test dates of the SAT and /or ACT.

IF STUDENTS DESIRE TO CHANGE COURSES, THEY MUST DO SO BEFORE SPECIFIED DEADLINES. WRITTEN PARENT PERMISSION IS REQUIRED.

## COLLEGE AND CAREER RESOURCE CENTER (CCRC) AND NAVIANCE

Pike High School is fortunate to have an outstanding resource center for student and parent use. The following resources are available in the College and Career Resource Center:

- Materials to help students research different career options
- Timelines and planning tools to help students prepare for the future
- Employment listings for local area job opportunities
- Interest inventories to match a student's skills and interests to various careers
- College application information and examples of college application essays
- Financial aid forms, information, and workshops
- College reference guides listing (state-by-state) tuition and housing costs for state and private colleges, entry requirements, and other statistics
- SAT and ACT test registration information and test-prep opportunities
- Information about military and apprenticeship programs
- Technical and professional school information and resources
- Use of the Internet for students without access at home
- Opportunity to meet with representatives from visiting colleges and universities
- Pre-collegiate planning

Pike High School subscribes to **Naviance Family Connection**, a service designed especially for students and families. Family Connection is a comprehensive website that you and your child can use to help in making plans about courses, colleges, and careers. Family Connection links with Naviance Succeed™, a service that we use in our office to track and analyze data about college and career plans, so it provides up-to-date information specific to our school.

Family Connection allows you and your child to:

- **Get involved in the planning and advising process** – Build a resume, complete online surveys, and manage timelines and deadlines for making decisions about colleges and careers
- **Research colleges** – Compare GPA, standardized test scores, and other statistics to actual historical data from our school for students who have applied and been admitted in the past
- **Research careers** – Research hundreds of careers and career clusters, and take career assessments like the Do What You Are® test.
- **Create plans for the future** – Build course plans, create goals and to-do lists, and complete tasks assigned to you by the school to better prepare yourself for your future college and career goals.
- **Apply to colleges**
- **Search for both local and national scholarships**
- **Prepare for the PSAT, ACT, and SAT using Naviance Test Prep**

Family Connection also lets us share information with you and your child about upcoming meetings and events, local scholarship opportunities, and other resources for college and career information.

Students may access Naviance by using Clever or their PHS student ID number as their initial log-in and their birthdate, formatted as *two-digit month two-digit day two-digit year*, as their initial password. Please contact your counselor if you have questions. To visit our school's Family Connection site, use your browser to connect to:

<http://student.naviance.com/phs>

Please contact Ms. Dena Irwin, 317-387-2636, [DLIrwin@pike.k12.in.us](mailto:DLIrwin@pike.k12.in.us), for more information.

**GRADUATION CREDIT REQUIREMENTS \*SUBJECT TO CHANGE BY THE INDIANA DEPT. OF EDUCATION**

| Pike High School Diploma with General Designation                                                                                                           | Pike High School Diploma w/Core 40 designation                                                                                                                                                                                                                                              | Pike High School Diploma w/Core 40 and Academic Honors designation                                                                                                                                                                                                                                                                                                                   | Pike High School Diploma w/ Core 40 and Technical Honors designation                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>English</b> – 8 Credits                                                                                                                                  | <b>English</b> – 8 Credits                                                                                                                                                                                                                                                                  | <b>English</b> – 8 Credits                                                                                                                                                                                                                                                                                                                                                           | <b>English</b> – 8 Credits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Math</b> – 4 Credits:<br>2 Credits in Algebra 1<br>2 Credits in any math course or quantitative reasoning course                                         | <b>Math</b> – 6 Credits earned in grades 9-12:<br>2 Credits in Algebra 1<br>2 Credits in Geometry<br>2 Credits in Algebra 2<br>*Students must be enrolled in a math course or a quantitative reasoning course each year of high school                                                      | <b>Math</b> – 8 Credits, 6 of which must be earned in grades 9-12:<br>2 Credits in Algebra 1<br>2 Credits in Geometry<br>2 Credits in Algebra 2<br>2 Credits in AP Probability/Statistics, Pre-Calculus/Trig, ACP Finite Math, or AP Calculus<br>*Students must be enrolled in a math course or a quantitative reasoning course each year of high school                             | <b>Math</b> – 6 Credits earned in grades 9-12:<br>2 Credits in Algebra 1<br>2 Credits in Geometry<br>2 Credits in Algebra 2<br>*Students must be enrolled in a math course or a quantitative reasoning course each year of high school                                                                                                                                                                                                                                                                                       |
| <b>Science</b> – 4 Credits:<br>2 Credits in Biology<br>2 Credits in any science course                                                                      | <b>Science</b> – 6 Credits:<br>2 Credits in Biology<br>2 Credits in Chemistry, Physics, or Integrated Chemistry/Physics (ICP)<br>2 Additional credits from above or any Core 40 science i.e. E/S Science, Anatomy, AP Chemistry, or AP Biology (see science course listing for all options) | <b>Science</b> – 6 Credits:<br>2 Credits in Biology<br>2 Credits in Chemistry, Physics, or Integrated Chemistry/Physics (ICP)<br>2 Additional credits from above or any Core 40 science i.e. E/S Science, Anatomy, AP Chemistry, or AP Biology (see science course listing for all options)                                                                                          | <b>Science</b> – 6 Credits:<br>2 Credits in Biology<br>2 Credits in Chemistry, Physics, or Integrated Chemistry/Physics (ICP)<br>2 Additional credits from above or any Core 40 science                                                                                                                                                                                                                                                                                                                                      |
| <b>Social Studies</b> – 4 Credits:<br>2 Credits in US History<br>1 Credit in US Government<br>1 Credit in any social studies course                         | <b>Social Studies</b> – 6 Credits:<br>2 Credits in US History<br>1 Credit in US Government<br>1 Credit in Economics<br>2 Credits in Geography & History of the World, World History, or AP World History                                                                                    | <b>Social Studies</b> – 6 Credits:<br>2 Credits in US History<br>1 Credit in US Government<br>1 Credit in Economics<br>2 Credits in Geography & History of the World, World History, or AP World History                                                                                                                                                                             | <b>Social Studies</b> – 6 Credits:<br>2 Credits in US History<br>1 Credit in US Government<br>1 Credit in Economics<br>2 Credits in Geography & History of the World, World History, or AP World History                                                                                                                                                                                                                                                                                                                     |
| <b>Physical Education</b> – 2 Credits                                                                                                                       | <b>Physical Education</b> – 2 Credits                                                                                                                                                                                                                                                       | <b>Physical Education</b> – 2 Credits                                                                                                                                                                                                                                                                                                                                                | <b>Physical Education</b> – 2 Credits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Health</b> – 1 Credit                                                                                                                                    | <b>Health</b> – 1 Credit                                                                                                                                                                                                                                                                    | <b>Health</b> – 1 Credit                                                                                                                                                                                                                                                                                                                                                             | <b>Health</b> – 1 Credit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>College/Career Pathway</b> – 6 Credits: Electives selected in a deliberate manner to take advantage of career exploration and preparation opportunities. | <b>Directed Electives</b> – 5 Credits:<br>World Languages or Fine Arts or Career/Technical                                                                                                                                                                                                  | <b>World Languages</b> – 6 or 8 Credits:<br>6 Credits in one language or<br>8 Credits in two different languages                                                                                                                                                                                                                                                                     | <b>College/Career Pathway</b> – 6 or more credits in a state-approved College & Career Pathway and ONE of the following:<br><ul style="list-style-type: none"> <li>Earn a state-approved, industry-recognized certification</li> <li>Complete 6 transcribed college credits from the approved dual credit course list</li> </ul>                                                                                                                                                                                             |
|                                                                                                                                                             |                                                                                                                                                                                                                                                                                             | <b>Fine Arts</b> – 2 Credits                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                                                                                                                                             |                                                                                                                                                                                                                                                                                             | <b>Other – Must have ONE of the following:</b><br>A. 2 AP courses (4 credits) and 2 corresponding AP exams<br>B. 2 DC courses with 6 college credits<br>C. 1 AP course and exam and 1 DC course for 3 college credits<br>D. 1250 SAT, with no less than 590 EWR and 560 math<br>E. 26 ACT composite, with writing<br>F. earn 4 credits in IB courses and take corresponding IB exams | <b>Other – Must have ONE of the following:</b><br><ul style="list-style-type: none"> <li>Score at or above the following levels on WorkKeys: Workplace documents – level 6, 84; Applied math – level 6, 83; Graphic literacy – level 5, 78</li> <li>Next Generation Accuplacer - minimum score of 250-writing, 259-reading, and 254-quantitative reasoning</li> <li>Compass test - minimum score of 70-writing, 80-reading, 66-Algebra</li> <li>Any one of the options (A-F) for the Core 40 with Academic Honors</li> </ul> |
|                                                                                                                                                             |                                                                                                                                                                                                                                                                                             | <b>Grade/GPA Requirements:</b><br>“C” or above in all courses that count toward the Core 40 with Honors diploma and an overall “B” average.                                                                                                                                                                                                                                          | <b>Grade/GPA Requirements:</b><br>“C” or above in all courses that count toward the Core 40 with Technical Honors Diploma and an overall “B” average.                                                                                                                                                                                                                                                                                                                                                                        |
| <b>11 Electives</b> – For a total of <b>40</b> credits                                                                                                      | <b>6 Electives</b> – For a total of <b>40</b> credits                                                                                                                                                                                                                                       | <b>8 Electives</b> – For a total of <b>47</b> credits                                                                                                                                                                                                                                                                                                                                | <b>10 Electives</b> –For a total of <b>47</b> credits                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## **GRADUATION REQUIREMENTS/GRADUATION PATHWAYS REQUIREMENTS – CLASS OF 2023 AND BEYOND**

Subject to change by the Indiana Department of Education and the Governor's Workforce Cabinet

Beginning with the class of 2023, students must satisfy all three of the following graduation requirements:

Complete course requirements for Diploma with General Designation, Diploma with Core 40 Designation, Diploma with Core 40 and Academic Honors Designation, or Diploma with Core 40 and Technical Honors Designation (see chart on previous page).

### **AND**

Learn and demonstrate one (1) of the following Employability Skills options:

- Completion of a project-based learning experience
- Completion of a service-based learning experience
- Completion of a work-based learning experience

### **AND**

Demonstrate at least one (1) of the following Postsecondary-Ready Competencies:

- Honors designation: fulfill all requirements of either the Academic or Technical Honors diploma
- ACT: earn the college-ready benchmarks scores
- SAT: earn the college-ready benchmarks scores
- Armed Services Vocational Aptitude Battery (ASVAB): earn at least a minimum Armed Forces Qualification Test score, currently a 31
- State- and Industry-recognized credential or certification
- Federally-recognized apprenticeship
- Career-Technical Education Concentrator: earn a C average or higher in at least two (2) year-long career sequence classes as outlined by the Governor's Workforce Cabinet. <https://www.in.gov/gwc/2437.htm>
- AP/International Baccalaureate/Dual Credit courses: earn a C average or higher in at least three (3) courses, one of which is in a core area

## **COURSES MEETING THE CRITERIA FOR THE ACADEMIC HONORS DIPLOMA**

### **English/Language Arts**

English 9, 10, 11, 12  
English Honors 9, 10  
AP English Literature & Composition  
AP English Language & Composition  
Creative Writing  
Speech  
World Literature\*  
Ethnic Literature  
Composition\*

### **Mathematics**

Algebra I  
Algebra II  
Algebra II Honors  
Pre-Calculus  
Pre-Calculus Dual Credit  
Mathematics Standard Level IB  
Calculus BC AP\*  
Calculus AB AP  
Probability & Statistics AP  
Geometry  
Geometry Honors  
Pre-Calculus/Trigonometry  
CCR Math Ready  
Integrated Math I-III

### **Social Studies**

Economics  
Economics AP (Micro)  
Economics AP (Macro)  
Government  
AP Government  
IB Euro History HL 1 & 2  
Psychology  
AP Psychology\*  
Sociology  
African Studies  
US History 1-2  
US History DC \*  
AP US History 1-2  
Geography and History of the World  
World History 1-2  
Honors World History  
AP World History  
AP European History  
AP Human Geography  
Indiana History

### **World Language**

French I - AP  
German I - AP  
Spanish I - AP

## Science and Technology

AP Biology/IB Biology I HL  
AP Chemistry  
AP Environmental Science/IB Env. Systems  
AP Physics 1/ IB Physics I SL  
AP Physics 2/IB Physics II SL  
Advanced Manufacturing & Logistics\*  
Anatomy & Physiology\*  
Biology I  
Biology I, Honors  
Chemistry I  
Chemistry I, Honors  
Chemistry I DC\*  
Earth & Space Science I  
Environmental Science  
IB Biology II HL  
IB Sports, Exercise and Health Science SL  
Integrated Chemistry & Physics (ICP)  
Physics I  
PLTW: Principles of Biomedical Sciences  
PLTW: Human Body Systems  
PLTW: Medical Interventions  
PLTW: Biomedical Innovation  
PLTW: Introduction to Engineering Design\*  
PLTW: Principles of Engineering\*  
PLTW: Digital Electronics  
PLTW: Environmental Sustainability  
PLTW: Engineering Design and Development  
PLTW: Computer Integrated Manufacturing\*

## Art

Intro to 2-D Art  
AP Art History  
IB Visual Arts  
Painting I-IV  
Ceramics I-IV  
Ceramics V-VI  
Jewelry I-II  
Jewelry III-IV  
3-D Art  
Advanced 3-D Art  
Media Arts I-II (Fine Art Photography)  
Computer Graphics I-IV  
Advanced 2-D Art I-III  
AP Studio Art 2-D  
AP Studio Art 3-D  
AP Studio Art Drawing

## Music

Intermediate Concert Band  
Advanced Concert Band, (Winds)  
Applied Music, (Percussion)  
Beginning Concert Band  
Beginning Orchestra  
Intermediate Orchestra  
Symphony  
Instrumental Ensemble  
Piano & Electronic Keyboard  
Beginning Chorus  
Advanced Chorus  
Men's Choir  
Intermediate Chorus  
AP Music Theory

## Other Options

Theatre Arts  
Advanced Theatre  
Technical Theatre  
Technical Theatre 3-4  
Theatre Production  
AP Computer Science  
AP Computer Science Prin.

\*Courses labeled with an asterisk are available for Dual Credit.

## SEVEN SEMESTER GRADUATION REQUIREMENTS

The State of Indiana makes a provision for a student to earn a high school diploma in seven semesters instead of eight assuming the following steps have been taken:

A student may request and be granted the privilege of graduating with a minimum of seven (7) semesters of regular school attendance **IF STUDENT MEETS ALL GRADUATION REQUIREMENTS.**

Such requests shall be initiated by the student, approved in writing by a parent, and presented to the Director of Guidance and the Principal by **May 1<sup>st</sup> of each year.**  
**Graduating in seven semesters will require the student to earn an additional English credit to meet the eight semesters of English graduation requirement.**

The English requirement may necessitate the student enrolling in summer school or two English courses during the fall term.

Students meeting the seven-semester graduation requirement may elect to participate in the commencement exercises by indicating so on the seven semester grad form.

## INDIANA GRADUATION QUALIFYING EXAM

Beginning with the Class of 2023, all junior students are required to take the SAT during the school day at Pike High School, typically during test dates in early March. While a qualifying score is not required for graduation, the Indiana Department of Education still requires student participation in the school day test junior year.

## GRADING

### GRADING FORMULA

The grading scale is as follows:

|    |        |    |       |    |       |    |       |    |                           |
|----|--------|----|-------|----|-------|----|-------|----|---------------------------|
| A+ | 97-100 | B+ | 87-89 | C+ | 77-79 | D+ | 67-69 | F+ | 40-59 (no credit awarded) |
| A  | 93-96  | B  | 83-86 | C  | 73-76 | D  | 63-66 | F  | 20-39 (no credit awarded) |
| A- | 90-92  | B- | 80-82 | C- | 70-72 | D- | 60-62 | F- | 0-19 (no credit awarded)  |

### **WEIGHTED GRADES**

Pike High School utilizes a weighted grade system. Classes will be categorized as regular, Honors, or AP. Regular will be those classes not weighted as Honors or AP. Classes assigned an AP weight will consist of all AP classes and other classes with national or international standards.

### **RANK IN CLASS**

A student's rank in class is important. It is essential that each student achieve to the best of his/her capabilities. Rank is determined by figuring cumulative averages for each student and then placing them in order with the highest first. GPA is calculated on the basis of the classes taken beginning with the freshman year. In case of a tie, the students will be listed numerically the same, and the appropriate numbers following will be eliminated. The average is calculated at the end of each semester by awarding grade point values. The Top 30 seniors are determined at the end of the seventh semester.

### **WITHDRAWALS**

- WD will be recorded for a student who withdraws from a class because of a medical reason or who transfers to another school.
- WF, withdrawal failing, is issued to a student who withdraws from a class after the first two weeks of the semester, has accumulated excessive absences, or who is expelled.

### **POLICY FOR CHANGING A STUDENT'S PLACEMENT WITHIN A SEMESTER**

A student is permitted to *withdraw from or change to* an Honors class to or from a regular course of the same topic in general if the following requirements are met:

- a. The student, parent, and teacher must be in agreement that the removal/change is in the best interest of the student.
- b. The request must meet department chair approval.
- c. The guidance counselor is capable of finding the desired course that is in alignment with the student's schedule.
- d. The student will transfer into the new course with the current grade achieved in the previous class.

### **RETAKING A CLASS/ACADEMIC RENEWAL POLICY**

#### **Repeating Courses with Grades in the Range of C- and below to F:**

The grade range of C- and below when incorporated into the retake and grade forgiveness policy allows for a student wanting to retake a course at the same level of difficulty. A student must retake any failed course specifically required for graduation. A course may be made up during the regular school year, credit retrieval, summer school, accredited on-line and correspondence opportunities, and night school. Retaking the course outside of the traditional school day requires counselor approval. When a student retakes a course, the grade will replace the earlier grade and the original grade WILL NOT count as an attempt for credit on the student's transcript or in the GPA calculation. The original grade will be removed from the official transcript and will be replaced with an NC.

#### **Repeating Passed Courses in the Range of C and Above to A+:**

If a student decides that her/his mastery of a previously passed course will be improved by retaking the course, he or she may do so subject to the following conditions: A student electing to retake a class of the same difficulty to earn a higher grade in the range of C and above must submit the proper processing form to his or her counselor prior to enrolling in the class. The form requires signatures from the student, parent, counselor, and administrator, and the form is available in the Guidance Office. The cost for processing this particular form is \$50.00 per retake course. A course may be made up during the regular school year, credit retrieval, summer school, accredited on-line and correspondence opportunities, and night school. When a student retakes a course, the grade will replace the earlier grade and the original grade WILL NOT count as an attempt for credit on the student's transcript or in the GPA calculation. The original grade will be removed from the official transcript and will be replaced with an NC.

#### **Options for Repeating Courses:**

Courses may be repeated by adding the course to the student's schedule, using Credit Retrieval (either during the school day or after school, as space permits), or through Indiana Online, [www.indianaonline.org](http://www.indianaonline.org). Interested students should speak with their counselor to determine which option best meets their needs. In order to ensure accurate course selection, all options require counselor approval prior to enrollment.

#### **IMPORTANT FOR POTENTIAL TOP 30 Students:**

Any students who want to be considered for qualification into the Top 30 category of academic achievement must never have utilized any of the retake and grade forgiveness options. Courses taken in middle school are not subject to this rule. There will be no application of the academic renewal policy toward their GPAs and official transcripts.



## **HIGH SCHOOL CREDITS EARNED IN MIDDLE SCHOOL**

### **IMPORTANT FOR INCOMING MIDDLE SCHOOL STUDENTS**

Middle school students who take high school courses in their middle schools (such as Geometry, Algebra I, ICP, or Spanish I) will receive high school credits and grades for these courses if they successfully complete the course. These grades and credits from middle schools will be posted to the student's PHS official high school transcript and will be used to calculate high school grade point average (GPA) and class rank.

In the event a student is not satisfied with the grade earned in middle school, the entire year of the course must be repeated and must be completed before continuing to the next level course. The grades of the repeated class will replace the grades earned in middle school and the GPA calculated using the new grades. In light of the current competitiveness of college entrance requirements, it is HIGHLY recommended that the middle school student repeat the course if the student receives a B- or below in the high school course taken during middle school. Scheduling to repeat a course from middle school will not occur automatically based on the above recommendation. It is the student/parent choice to repeat the course and is imperative that the counselor be informed of the choice.

## **ADVANCED PLACEMENT PROGRAM**

The Advanced Placement Program (AP) gives students an opportunity to take college-level courses and exams while they are still in high school. Through AP, they may earn credit, advanced placement, or both for college. Thirty-two courses in 21 subject areas are offered worldwide by approximately 13,000 high schools. Check with AP teacher or counselor for current testing fees. All Math, Science, and English Language Advanced Placement tests are paid for by the State of Indiana. Those students on free or reduced lunch qualify for a discount on other exams.

There are many benefits for students who participate in AP – studying interesting and challenging things, discovering new interests, and getting a head start on their future!

### **Why is AP so valuable?**

“I’m not sure how well I would do in an AP course or exam. Even if I did get a good grade, I’m not sure that I would use it. Why get involved with AP?” Remember – you risk nothing by taking the AP Exam: you determine which colleges, if any will receive your grade. More importantly, there are many **advantages** to getting involved with AP.

### **Find out what you can really do...**

Challenge yourself and see what you are capable of achieving. Prove you can master college-level material, and discover the satisfaction of reaching your goals and knowing you have been successful.

### **Prepare for college work...**

AP courses and exams represent the beginning of your journey through college-level academic challenges. Once you’re used to being challenged, you’re more likely to continue with advanced studies. AP is not just a test, it’s an experience. AP courses motivate you to work hard, and you can improve the quality of all your courses based on the skills you gain in one AP course. Students who were unsure about their future plans say AP helped steer them toward college or advanced studies. The work you do in an AP course will help you develop skills and study habits that will be vital in college. You’ll learn how to analyze problems effectively, improve your writing skills, and prepare for exams. Students who take AP courses and exams are more knowledgeable about the demands of college work, and they understand what is needed to succeed at the college level.

### **Improve your chances of getting into a competitive college...**

Colleges and universities recognize that applicants with AP experience are much better prepared for the demands of college courses. Admissions officers are well aware of the difficulty of AP courses and exams, and sending them your AP Exam Grades can only be a positive step toward potential admission into competitive colleges.

### **Good value for your money...**

The cost of an AP Exam can be a concern for some students. But put this into perspective – how much do you spend on the latest video game, or a couple of compact discs? Given how hard you work in and out of school, isn’t it time you put something into yourself and your future? Check with your AP Coordinator – you may be eligible for a fee reduction through the College Board and/or your state legislation.

### **A head start...**

Every year, hundreds of students achieve sophomore standing by earning qualifying AP grades. More than 1,400 institutions in the United States alone grant a full year’s credit to students who present satisfactory grades on enough AP Exams. Write to the colleges you are interested in attending to get the most up-to-date information about their AP policies.

### **Earn a Scholar Award...**

The AP Program offers a number of awards to students who demonstrate outstanding achievement. An acknowledgement appears on the student’s Grade Report. Scholar Award recipients not only gain recognition from colleges, but also win the admiration of their peers, families, and communities.

### **The payoff...**

When you ask yourself “Is it worth it?” consider the potential payoff. The AP experience is rich and rewarding. You work hard, but you get back much in return. Most colleges view any AP experience as a plus, and AP gives you tools that serve you well throughout your college career. AP Exams have been paid for by the state in Math, English Language, and Science. Check with AP teacher or counselor for current testing fees. College acceptance of AP credits varies greatly. Students should review these policies in advance.

## **DUAL CREDIT OPPORTUNITIES**

A Dual Credit course allows PHS students to earn both college credit hours and a high school credit for successfully completing just one course. The college credit hours awarded through Dual Credit are earned through completion of the course and not solely by an exam at the end of the course. Pike has partnerships with several state colleges and universities that offer D.C. courses. Some colleges require certain grade point averages, grade levels and/or fees — which if any, are significantly reduced from the university’s on-campus fee. All students who receive Free or Reduced Lunch are waived from paying any state university Dual Credit fees. In addition, students who might need some financial assistance may apply for scholarships.

We have Dual Credit agreements with the following universities: Butler Univ., Indiana Univ., IUPUI, Ivy Tech Community College, and Vincennes Univ. All Dual Credit from courses on the Core Transfer Library list are accepted at many Indiana state college or universities and many private colleges. This allows a student to take

a course sponsored, for example, by Ivy Tech and have it accepted for credit at Indiana University. **Students should check with individual colleges of their choice regarding transfer of dual credit, IB, and AP credits.**

Dual Credit courses include both academic courses and career academic courses. **All Dual Credit classes are indicated with DC after the course title.**

In general, students who experience the most success in DC courses have an average to above-average GPA.

For further information about Dual Credit courses and opportunities, please contact your counselor or the Dual Credit Coordinator, Mrs. Vohland, at 317-216-5437. A complete list of D.C. courses in the Core Transfer Library can be found on the Indiana Department of Education's website, [www.doe.in.gov](http://www.doe.in.gov). Information may also be found through the Indiana Commission for Higher Education Division of Student Financial Aid, [www.in.gov/che](http://www.in.gov/che).

## **INTERNATIONAL BACCALAUREATE DIPLOMA PROGRAMME**

### **What is the IB Programme?**

The International Baccalaureate Diploma Programme is a rigorous pre-university course of studies, leading to examinations that meet the needs of highly motivated secondary school students in the **11<sup>th</sup> and 12<sup>th</sup>** grades. Students must take IB courses and examinations in each of the six subject groups (English, World Language, Social Studies, Science, Math, and Arts & Electives) during this time period. At least three and not more than four are taken at Higher Level (HL), the others at Standard Level (SL). A passing grade on said exam often earns college credit much like an AP exam. An IB Diploma is considered the most prestigious high school certification by the top colleges and universities in the world.

Enrollment in Honors courses (Pre IB) in **9<sup>th</sup> and 10<sup>th</sup>** grade is highly encouraged.

The Diploma Programme offers special features in addition to the traditional strengths of a liberal arts curriculum. Successful completion of these following special features is required in addition to the completion of the six subject exams:

- Completion of the interdisciplinary **Theory of Knowledge (TOK)** course designed to develop a coherent approach to learning which transcends and unifies the academic areas and encourages appreciation of other cultural perspectives. TOK challenges students to question assumptions about knowledge, to be aware of subjective and ideological biases, and to develop a personal mode of thought, using analysis of evidence expressed in rational argument. Students will take this course during 11<sup>th</sup> and 12<sup>th</sup> grade and will be awarded with two credits.
- Completion of the 4000 words **Extended Essay** that offers the opportunities to investigate a topic of special interest and acquaints students with the independent research and writing skills expected at university level. Students will prepare for this in junior IB English class.
- Completion of 150 hours of the creativity, activity, service requirement (**CAS**) which encourages students to be involved in creative pursuits, physical activities, and service projects in local, national or international contexts. Students may begin in June of their sophomore year and must complete it by March of their senior year.

### **What type of student should consider applying for Honors courses (Pre IB) in 9<sup>th</sup> and 10<sup>th</sup> grade in preparation of the IB classes in 11<sup>th</sup> and 12<sup>th</sup> grade?**

A student who meets the following requirements:

- One who desires an intellectual and academic challenge
- One who is self-motivated
- One who possesses strong written and oral communication skills
- One who enjoys learning and is open to new ideas and alternative thinking
- One who participates in school and community activities
- One who has a teacher recommendation AND approximately 90 percentiles, or higher, on total reading, total language or total math or a Pass Plus rating on ISTEP tests or other national tests for Pre IB classes.

Students who wish to be a part of the IB Programme should complete and earn an A or B in year one of world language and first year algebra in middle school and should enroll in the following classes in 9<sup>th</sup> grade:

**Biology Honors**

**English Honors**

**Geometry Honors or Algebra II Honors**

**World History AP**

**World Language**

**(Spanish, French, or German)**

Students who are IB Diploma students and complete the IB Programme are not required to take Geography and History of the World, Economics, or Government because the subject standards for those courses are included in the Pre-IB an IB courses of World History Honors, U.S. History AP, European History AP, and Contemporary World Topics/Government AP.

### **What are the academic requirements?**

- An IB Diploma student must take a minimum of three (3) Honors courses in both 9<sup>th</sup> and 10<sup>th</sup> grade.
- The IB Diploma student must strive to maintain a semester grade of "B" or better in Honors (Pre-IB) and IB courses. Students will need to seek other choices if their grade falls below a "C".
- Students will need to commit to the IB Programme by mid-year of the 10<sup>th</sup> grade to allow for registration for IB courses in 11<sup>th</sup> grade.

**Fees for IB Exams are Comparative with AP Exam Fees**

**PRE IB (HONORS LEVEL) & IB FLOW CHART**

|                                                       | 9th                                                                                                                                                                                                                            | 10th                                                                             | 11th                                                                                                                                                                              | 12th                                                                                                                                      | IB Exam Level |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>English Group 1</b>                                | English 9 Honors<br>2128-2129                                                                                                                                                                                                  | English 10 Honors<br>2223-2224                                                   | IB English Language/Literature 1<br>2580-2581                                                                                                                                     | IB English Language/Literature 2<br>2433-2434                                                                                             | HL            |
|                                                       | (Honors students may enter an IB/AP English course with a “C” or higher in English 10 Honors.<br>Regular English 9 student may enter English 10 Honors class with an “A in Regular English 9 and English Dept. Chair approval) |                                                                                  |                                                                                                                                                                                   |                                                                                                                                           |               |
| <b>World Language Group 2</b>                         | 1 <sup>st</sup> or 2 <sup>nd</sup> year                                                                                                                                                                                        | 2 <sup>nd</sup> or 3 <sup>rd</sup> year                                          | 3 <sup>rd</sup> or 4 <sup>th</sup> or 5 <sup>th</sup> year                                                                                                                        | 4 <sup>th</sup> or 5 <sup>th</sup> or 6 <sup>th</sup> year<br>IB is 4 <sup>th</sup> or 5 <sup>th</sup> year<br>AP is 5 <sup>th</sup> year | SL            |
|                                                       | (Languages offered: German, Spanish, or French)                                                                                                                                                                                |                                                                                  |                                                                                                                                                                                   |                                                                                                                                           |               |
| <b>Social Studies Group 3</b>                         | World History AP 7025-7026<br>Or<br>Honors World Hist. 7021-7022                                                                                                                                                               | U.S. History AP<br>7138-7139                                                     | IB History – Euro Year 1<br>7150-7160                                                                                                                                             | IB History – Euro Year 2<br>7251- 7252                                                                                                    | HL            |
|                                                       | IB diploma students are not required to take Government, Economics, or World Geography if they complete all four social studies requirements listed above.                                                                     |                                                                                  |                                                                                                                                                                                   |                                                                                                                                           |               |
| <b>Science Group 4</b>                                | Biology Honors<br>6523-6524                                                                                                                                                                                                    | Chemistry Honors<br>6823-6824, Chem DC<br>6825-6826 or AP<br>Physics 1 6910-6920 | IB Biology Year 1<br>6545-6546                                                                                                                                                    | IB Biology Year 2<br>6331-6341                                                                                                            | HL            |
| <b>Math Group 5</b>                                   | Algebra II Honors<br>4643-4644                                                                                                                                                                                                 | Pre-Calculus DC<br>4799-4800                                                     | IB Math A&A Year 1<br>IB Math SL<br>4901-4902                                                                                                                                     | IB Math A&A Year 2<br>AP Calculus BC<br>4945-4946                                                                                         | SL            |
|                                                       | Geometry Honors<br>4688-4689                                                                                                                                                                                                   | Algebra II Honors<br>4643-4644                                                   | IB Math A&A Year 1<br>PreCalculus DC<br>4799-4800                                                                                                                                 | IB Math A&A Year 2<br>IB Math SL<br>4901-4902                                                                                             | SL            |
|                                                       | Pre-Calculus DC<br>4799-4800                                                                                                                                                                                                   | AP Statistics 4761-4762                                                          | IB Math A&A Year 1<br>IB Math SL<br>4901-4902                                                                                                                                     | IB Math A&A Year 2<br>AP Calculus BC<br>4945-4946                                                                                         | SL            |
| <b>Choice Group 6</b>                                 |                                                                                                                                                                                                                                |                                                                                  | IB Visual Arts 1236-1237<br>(either 11 <sup>th</sup> or 12 <sup>th</sup> grade)                                                                                                   |                                                                                                                                           | SL            |
|                                                       |                                                                                                                                                                                                                                |                                                                                  | IB Sports, Exercise and Health Science SL 6342-6343                                                                                                                               |                                                                                                                                           | SL            |
|                                                       |                                                                                                                                                                                                                                |                                                                                  | IB Environmental Systems 6741-6742                                                                                                                                                |                                                                                                                                           | SL            |
|                                                       |                                                                                                                                                                                                                                |                                                                                  | AP Physics 1/IB Physics 1 SL 6910-6920 (10 <sup>th</sup> or 11 <sup>th</sup> grade)<br>and<br>AP Physics 2/IB Physics 2 SL 6929-6930 (11 <sup>th</sup> or 12 <sup>th</sup> grade) |                                                                                                                                           | HL/SL         |
|                                                       |                                                                                                                                                                                                                                |                                                                                  | IB Chemistry 1 & 2, two years<br>6823-6824, 6825-6826, 6842-6843                                                                                                                  |                                                                                                                                           | SL            |
|                                                       |                                                                                                                                                                                                                                |                                                                                  | IB Psychology 7083-7084 (either 11 <sup>th</sup> or 12 <sup>th</sup> grade)                                                                                                       |                                                                                                                                           | SL            |
|                                                       | Theatre Arts I 2710-2720                                                                                                                                                                                                       | Advanced Theatre Arts<br>2725-2726 OR<br>Tech. Theatre 2755-2756                 | IB Theatre Production (3PT) 2701-2702<br>Prerequisites <u>OR</u> BY AUDITION <u>OR</u> INSTRUCTOR APPROVAL                                                                        |                                                                                                                                           | SL            |
| 12 <sup>th</sup> grade required course for IB diploma |                                                                                                                                                                                                                                |                                                                                  | Theory of Knowledge - 12 <sup>th</sup> grade only<br>(Mandatory for IB students) 7351-7352                                                                                        |                                                                                                                                           |               |

### **PIKE PREPARATORY ACADEMY**

The Pike Preparatory Academy strives to place emphasis on achievement rather than alternative. Many students are hindered in their educational process by their inability to find success in a traditional environment, leading to boredom or frustration, and eventually dropping out. Pike Prep Academy offers such students options that will lead to success and on-time graduation.

The Pike Prep Academy curriculum and grade requirements are no different than that of our traditional high school, although there are differences in the way in which classes are taught. Pike Prep Academy utilizes individualized teaching in order to enhance student instructional time. After earning the required number of credits, students are allowed to participate in Pike High school graduation ceremonies.

In addition to academics, Pike Prep Academy also emphasizes employment and personal development. By taking a holistic approach to our student's development, we believe that Pike Prep Academy offers the assurance of a successful future. Students and parents desiring additional information about attending Pike Prep Academy should contact the Guidance Office at Pike High School.

### **INDIANA 21<sup>ST</sup> CENTURY SCHOLARS PROGRAM**

The State of Indiana has sponsored a scholarship program for several years that is initiated at the middle school level. Students qualify for the program if they are on the free or reduced lunch program while in middle school. They are also required to be living with the same parent or guardian in their senior year as they were in middle school. Students must fulfill the following obligations in order to qualify for this scholarship:

- complete at least the Core 40 curriculum and fulfill the required testing programs
- plan to attend a 2 or 4 year college or university
- 2.5 GPA on a 4.0 scale
- Completion of all Scholar Track activities
- submit the Free Application for Federal Student Aid (FAFSA) in the senior year. It must be filed by March 1.
- affirmation letter must also be submitted by March 1<sup>st</sup> of the senior year
- The college or university to be attended must be in Indiana. It may be a public or a private institution.

### **INDIANA COMMISSION FOR HIGHER EDUCATION/DIVISION OF STUDENT FINANCIAL AID**

It is important to be aware that students who are completing an Indiana Academic Honors Diploma *may* be eligible for additional *need-based* financial aid (if qualified by FAFSA completion) through the Frank O'Bannon Grant. Award amounts are different depending on variables such as GPA and amount of money to be awarded state-wide.

Academic Honors Diploma recipients *may* be eligible for up to 100% of the designated grant amount, Core 40 diploma recipients and general diploma recipients *may* qualify for 80% of the designated grant amount. For additional up-to-date information on this and other financial aid, please contact the Indiana Commission for Higher Education Division of Student Financial Aid at [www.in.gov/che](http://www.in.gov/che) or (317) 232-2350.

### **THE MITCH DANIELS EARLY GRADUATION SCHOLARSHIP**

The Mitch Daniels Early Graduation Scholarship is an educational benefit for students who graduate from a publicly supported high school at least one year early, after December 31, 2010. The scholarship pays \$4,000 to be applied first to any remaining unpaid tuition and fees and can be used at any Division of Student Financial Aid eligible Indiana college. The balance of the scholarship shall be remitted to the student. This is a one-time benefit and may not be renewed. The scholarship may not be used for remedial course work. Details of student eligibility and the application process may be found at the Indiana Commission for Higher Education Division of Student Aid website [www.in.gov/che/](http://www.in.gov/che/).

### **ACADEMIES OF PIKE HIGH SCHOOL**

Academies are small learning communities organized around broad-based career themes which integrate school, business, and community resources to prepare all students for a successful transition into adult life. These smaller, more personal learning environments create a strong sense of community allowing students to connect with each other and with others outside the school. These links with business, community and post-secondary schools increase the relevance of instruction and prepare students for life-long learning, career achievement and satisfaction, civic involvement, and leadership. Pike High School Academies are: Business and Information Technology, Judicial and Global Studies, Doctoral Medicine, Health and Food Science, Performing Arts, Science and Engineering, Visual Arts and Communications.

Pike High School students participate in Academy-based activities approximately three times each semester. These enrichment activities are not in lieu of graduation career pathways requirements.

## **INDIVIDUAL COURSE DESCRIPTIONS BY DEPARTMENT**

### **ART**

**Chairperson: Myron Cochran, 317-387-2780**

#### **Introduction to Two-Dimensional Art (1010) Elective 9–10–11–12 (one-semester course)**

Production-Students will create two-dimensional works of art utilizing various mediums i.e. pencil, ink, colored pencil and paint. Emphasis will be placed on student's application of elements and principles of design in their work and creating visually pleasing compositions. Students will concentrate on building skills in observations from real life. Students will present convincing, accurately rendered subject matter. Students will explore design theory and color theory. Art History - Students will search for meaning and significance in two-dimensional art and artifacts through the historical study of artwork from a variety of cultures and time periods. Art Criticism - Students will search for meaning in two-dimensional art by critically examining two-dimensional artwork. Aesthetics - Students will search for significance in two-dimensional art by questioning the nature of art. Interdisciplinary - Students will find direct correlation to other disciplines. Career Exploration - Students will explore career options in visual arts.

- Prerequisite: None
- A Core 40 and AHD course
- A Pre-IB course

#### **Advanced Two-Dimensional Art I (1020) Elective 9-10-11-12 (one-semester course)**

Production - Students will create two-dimensional works of art utilizing various mediums i.e. pencil, pastels, charcoal, collage, and paint. Students will create works of art that use specific principles to solve visual problems. Art History - Students will look for connections between major world events and issues and the way artists have responded to these through their work. Students will identify works from major art movements and time periods and place them upon a time line. Art Criticism – Students will describe, analyze and interpret works of art and artifacts. Students will use proper art terminology when discussing their own works and the works of others. Aesthetics - Students will identify and apply theories of art when making informed judgments about works of art. Students will look at alternative responses to works of art from peers, artists, and philosophers. Interdisciplinary - Students will compare the visual arts within a particular historical period or style with similar issues in other disciplines. Career Explorations - Students will continue to explore career options in visual art. Students will identify the knowledge and skills gained in art experiences that transfer to daily life.

- Prerequisite: Introduction to Two Dimensional Art
- A Core 40 and AHD Course
- A Pre-IB course

#### **Advanced Two-Dimensional Art II (1030) Elective 10–11–12 DC**

Production - Students should be able to show ability in observation. Studying real subject matter is important and accurate renderings are stressed and encouraged. Students will also work in a variety of art forms. Art History – Students will identify meaning, significance, direction, and function in works of art and study of artists throughout history. Art Criticism – Students will analyze the use of symbols, elements, principles, and media in works of art. Aesthetics – Students will search for meaning and identify problems in works of art by responding to various questions, and coming up with their own thoughts in relation to the art. Interdisciplinary – Students will identify similarities between characteristics in the visual arts and similar ideas, issues, or themes in other disciplines. Career Exploration – Students will be able to identify the connection between the visual arts and potential job offerings in the community.

- Prerequisite: Advanced Two-Dimensional Art I
- A Core 40 and AHD course

#### **Advanced Two-Dimensional Art III (1040) Elective 10-11-12 DC**

Production – Students will make informed choices about specific subject matter or concepts and defend those choices when given a range of objects or spaces. Students will also select subject matter communicating personal ideas and statements using elements and principles of art. Art History – Students will identify function and how it relates to the history, aesthetics, and culture of the work. Art Criticism – Students will construct well-supported interpretations of works of art using problem solving and reflection on various interpretations, evidence presented in the work. Aesthetics – Students will search for meaning and identify problems in works of art by responding to various questions, and coming up with their own thoughts in relation to the art. Interdisciplinary – Students will creatively apply principles and techniques of the visual arts and selected other disciplines. Career Exploration – Identify criteria of professional portfolios for art school and reflect on strengths of their own art portfolio.

- Prerequisite: Advanced Two-Dimensional Art II
- A Core 40 and AHD course

#### **Painting I (1050) Elective 11–12**

Production – Students will evaluate the effectiveness of elements and principles in works of art and use this evaluation to inform their own work. Students will also use a variety of materials such as mixed media, tempera, ink, watercolor, acrylic and techniques such as stippling, hatching, wash, and impasto. Students at this level produce works for their portfolio which demonstrate a sincere desire to explore a variety of ideas and problems. Art History – Students will recognize significant works of Western and Non-Western art and understand how the art has developed over time. Identity of artist, period, and style will be recognized. Art Criticism – Students will use appropriate art terminology when discussing their own works and works of others. Aesthetics – Students will identify and apply theories of art when making informed judgments about works of art. Interdisciplinary – Students will be able to demonstrate the ability to create works of art that communicate in-depth knowledge gained in integrated study. Career Exploration – Students will identify knowledge and skills that they will use in daily life.

- Prerequisite: Advanced Two-Dimensional Art III or Advanced Two-Dimensional Art I with a grade of A or B
- A Core 40 and AHD course

#### **Painting II (1060) Elective 11-12**

Production – Students will use specific principles in their works to solve visual problems that appear in the artwork. Students will also use a variety of materials such as mixed media, tempera, ink, watercolor, acrylic and techniques such as stippling, hatching, wash and impasto. Students at this level produce works for their portfolio which demonstrate a sincere desire to explore a variety of ideas and problems. Art History – Students will analyze common characteristics of works of art across time and cultural groups to identify influences. Identity of artist, period, and style will be recognized. Art Criticism – Students will use established criteria and develop personal criteria for determining excellence in the work. Aesthetics – Students will identify and apply theories of art when making informed judgments about works of art. Interdisciplinary – Students will be able to demonstrate the ability to create works of art that communicate in-depth knowledge gained in integrated study. Career Exploration – Students will identify knowledge and skills that they will use in daily life and career applications.

- Prerequisite: Painting I
- A Core 40 and AHD course

### **Painting III-IV (1065-1066) Elective 12**

Production – Students will search for meaning, significance, and direction in their work by choosing and evaluating subject matter, and ideas that communicate intended meaning in their artwork. Students will also use a variety of materials such as mixed media, tempera, ink, watercolor, acrylic and techniques such as stippling, hatching, wash and impasto. Students at this level produce works for their portfolio which demonstrate a sincere desire to explore a variety of ideas and problems. Art History – Students will search for meaning, significance, and direction in their work through an in-depth analysis of historical and contemporary paintings and identifying relationships between context, form, and function. Art Criticism – Students will search for meaning by comparing their work to contemporary and historical works of art to examine the relationships between context, form, function and meaning. Aesthetics – Students will identify questions and respond to reflection of their changing definition of art, and assess their ideas in relation to the arts and community. Interdisciplinary – Students will be able to demonstrate the ability to create works of art that communicate in-depth knowledge gained in integrated study. Career Exploration – Students will visit and critique local and state museums, exhibits and other art related establishments and analyze the effect of these on daily life.

- Prerequisite: Painting II
- A Core 40 and AHD Course

### **Introduction to Three-Dimensional Art (1190) Elective 10-11-12**

Production - Students will create objects from chipboard using craftsmanship skills in cutting and joining. Chipboard, cardboard, oaktag, wheat-paste and glue will be used in an additive process to complete assignments. Students will become aware of and proficient in using skills that begin with a concept and process an idea into a solution. Art History - Students will find meaning, significance and direction in their work by referencing historical artifacts and buildings. Art Criticism - Using formal, emotional and realistic formats, students will critically examine the relationship of form and function in their own work and in the work of others. Aesthetics - Students will develop criteria to make an informed judgment of art works. Students will engage in questioning and resolving issues for determining artistic merit of art works. Interdisciplinary - Assignments will emphasize reading and math skills. History, social studies, basic physics and multicultural studies will be included in their inquiry. Career Exploration - Students will investigate career options including package design and architecture.

- A Core 40 and AHD course

### **Advanced Three-Dimensional Art (1200) Elective 10–11–12**

Production – Students will make objects from chipboard, plaster, Fimo clay, and other media. Students will create structures that are more complex using a range of subject matter, symbols and ideas. Cutting and joining skills will demonstrate greater skill. Students will enhance their work by adding motion and/or light in their solutions to the assignment. Art History – Students research structures and artifacts seeking meaning, significance and direction in their work viewed in the context of more cultural understanding. Art Criticism – Students identify and apply standards to make informed judgments about art. Students thoroughly examine relationships of context, form and function to add more meaning to their work. Students solve more challenging visual problems and demonstrate more in-depth understanding of media and process. Aesthetics – Students engage in philosophical inquiry into nature of art and finalize an artistic idea by demonstrating fluency, flexibility, elaboration and originality. Students demonstrate respect for their own work and the work of others. Interdisciplinary – Students practice math, English, social studies, history and multicultural ideas in their own artwork and propose multiple solutions to problems posed in assignments. Students write statements about their own artwork. Students theorize about artists' objective or style. Career Exploration – Students explore career options related to design and select an artist whose work they would emulate. Students identify connections between visual arts education and potential job offerings in their community.

- Prerequisite: Introduction to Three-Dimensional Art
- A Core 40 and AHD course

### **Ceramics I (1110) Elective 10–11–12**

Production – Students will create works of art in clay utilizing hand-building processes including the pinch, coil, hand hewn, drape mold, and slab methods. Ceramic I students will also be given a brief introduction to the potter's wheel, slip casting, glazing and the firing process. Art History- Students will examine significant ceramic works of Western and non-Western cultures and learn how pottery evolved over time. Art Criticism – Students will learn to describe, analyze, and interpret ceramic works of art and artifacts. Aesthetics – Students will engage in philosophical inquiry into the nature of art or aesthetic issues. Interdisciplinary – Assignments will emphasize a correlation to other school disciplines such as Math, English, Science, and Social Studies. Career Exploration – Students will explore career options related to ceramics and other fields of art.

- Prerequisites: Introduction to Two-Dimensional Art and Advanced Two-Dimensional Art I
- A Core 40 and AHD course
- This course may be fast-tracked with a GPA of 2.5 or above (Grades 10-11-12)

### **Ceramics II (1120) Elective 10–11–12**

Production – Students will develop their hand building skills and learn potter's wheel skills such as wedging clay, centering, opening, and pulling up cylinders. Students will learn to make simple rounded forms. Students will also increase their knowledge of decorating and glazing techniques. Art History – Students will search for meaning, significance, and direction in their work through an exploration of historical and contemporary ceramics. Art Criticism – Students will construct well-supported interpretations of ceramic works of art using problem solving and critical inquiry skills. Aesthetics – Students will engage in philosophical inquiry into the nature of ceramic art or aesthetic issues in both group and individual explorations. Interdisciplinary – Students will demonstrate an ability to create ceramic works that communicate in-depth knowledge gained through another academic discipline. Career Exploration – Students will identify the knowledge and skills gained in art experiences that transfer to daily life.

- Prerequisite: Ceramics I
- A Core 40 and AHD course

### **Ceramics III (1130) Elective 11–12**

Production – Students will expand their hand building and wheel throwing techniques to further their ability to understand and apply elements and principles of design effectively. Assignments will include a ceramic artist master's study. Art History – Students will learn to recognize ceramic works of art and identify them by artist, period, style and geographic location. Art Criticism – Students will examine established criteria and develop personal criteria for determining excellence in ceramic work. Aesthetics – Students will learn to theorize about art and make informed judgments. Interdisciplinary – students will examine the ways visual and performing arts are related as a career. Career Exploration – Students will discuss how ceramic art experiences affect daily life and identify opportunities for involvement in the arts.

- Prerequisite: Ceramics II
- A Core 40 and AHD course

### **Ceramics IV (1140) Elective 11-12**

Production – Students will develop their hand building and wheel throwing techniques to include lidded containers, teapots, and pitchers. Students will create ceramic works that use specific principles, and functions to solve problems and communicate ideas. Art History – students will identify characteristics of style in the work of a ceramic artist or movement and describe how the culture and time influence style. Art Criticism – Students will learn to make informed judgments about the characteristics, functions, meanings, and purposes of ceramic art and artifacts. Aesthetics – Students will listen to or read alternative responses to works of ceramic art

from peers, artists, and philosophers. Interdisciplinary – Students will demonstrate the ability to create works that integrate media, processes, and concepts or sign systems of other art forms. Career Exploration – Students will identify the knowledge and skills gained in various ceramic art experiences that transfer to daily life.

- Prerequisite: Ceramics III
- A Core 40 and AHD course

#### **Ceramics V (1141) Elective 12**

Production – Students will create multiple solutions in works that demonstrate competence in producing effective relationships between elements, media, and function. Art History – Students will compare works of art for function and identify relationships in terms of history, aesthetics, and culture. Art Criticism – Students will analyze how the work affects the communication of ideas and suggest alternatives. Aesthetics – Students will research puzzling works of ceramic art that challenges one's personal artistic preferences and identify personal criteria for judging excellence in ceramic art. Interdisciplinary – Students will demonstrate ability to create ceramic works that powerfully communicate in-depth knowledge and understanding of a concept through integrated study. Career Exploration – Students will visit and critique ceramic art at local art museums or exhibits and analyze the effects of these experiences upon daily life.

- Prerequisite: Ceramics IV
- A Core 40 and AHD course

#### **Ceramics VI (1142) Elective 12**

Production - Students will create ceramic works that use specific elements, principles, and functions to solve problems and communicate ideas. They will learn to finalize an artistic idea by demonstrating fluency, flexibility, elaboration, and originality. Art History – students will analyze common characteristics of works of ceramic art and artifacts and present well-supported defenses of these judgments. Aesthetics – Students will demonstrate reflection and sustained attention to complex problems in ceramic works of art by articulating well-supported hypotheses and judging the adequacy of other hypotheses. Interdisciplinary – Students will demonstrate the ability to create works that integrate media, processes, and concepts or sign systems of other art forms in a way that powerfully communicates in-depth knowledge gained through integration. Career Exploration – Students will finalize a portfolio of ceramic works based on critiques by oneself, teachers, peers, and through research.

- Prerequisite: Ceramics V
- A Core 40 and AHD course

#### **Jewelry I (1150) Elective 10–11–12**

Production - Elements and principals of design will be focused on, as projects will include a bracelet, wire piece, natural material piece, and an ethnic study piece. Art History – Students will understand the importance and development of jewelry throughout time and in different societies. Art Criticism – Students will describe, analyze, and interpret works by professional artists and their peers to make informed judgments about their own artwork. Aesthetics – Students will tackle art issues as a group as well as separately through writings. Interdisciplinary – Writing assignments will help students plan and communicate their projects while science, math and historical topics will help explain techniques and materials. Career Exploration – The importance of critics and patrons will be discussed, and students will have an opportunity to interview and observe visiting artists. Students will maintain and build an artist portfolio.

- Prerequisite: Introduction to Two-Dimensional Art and Advanced Two-Dimensional Art I or Introduction to 3-D Art
- A Core 40 and AHD course
- This course may be fast-tracked with a GPA of 2.5 or above (grades 10-11-12)

#### **Jewelry II (1160) Elective 10–11–12**

Production – Students will create portfolio quality projects including an appliqué piece, wood-packed piece, a piece incorporating paper or plastic, and a directed study in which the student will create a piece using at least two techniques learned in the last two semesters. Art History – Students will further their understanding of the importance and development of jewelry throughout time and in different societies as well as the importance of new discoveries and movements. Art Criticism – Students will identify characteristics in a piece and be able to identify its style. Aesthetics – Students will continue to tackle art issues as a group as well as separately through writings. Interdisciplinary – Writing assignments will help students plan and communicate their projects while science, math, and historical topics will help explain techniques and materials. Career Exploration – The importance of critics and patrons will be discussed, and students will have an opportunity to interview and observe visiting artists. Students will maintain and build an artist portfolio.

- Prerequisite: Jewelry I
- A Core 40 and AHD Course

#### **Computer Graphics I (Digital Design) (1225) 10-11-12**

Students in computer graphics engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production. Students create computer graphics incorporating desktop publishing, multi-media, and digitized imagery. Students will use Adobe Photoshop, Adobe Illustrator and Adobe In Design. Emphasis will be on learning the programs and tools to effectively create digitized imagery.

- A Core 40 and AHD course
- One credit per semester

#### **Computer Graphics II (Digital Design) (1226) 10-11-12**

Students in computer graphics engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works of art. Students create computer graphics incorporating desktop publishing, multi-media, and digitized imagery. Students will use Adobe Photoshop, Adobe Illustrator, and Adobe In Design. Emphasis will be on using the programs to effectively communicate visual art. Students will use digital SLR cameras and experiment with digitally enhanced photography.

- Prerequisite: Successful completion of Computer Graphics I with a C+ or higher
- A Core 40 and AHD course
- One credit per semester

#### **Computer Graphics III (Digital Design) (1130) DC**

Students in computer graphics engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works of art. Students create computer graphics incorporating desktop publishing, multi-media, digitized imagery, computer animation or Web page design. Additionally, Students: 1) reflect upon the outcomes of these experiences, (2) explore historical connections, (3) Write about the process, (4) make presentations about their progresses at regular intervals, (5) work individually and in groups, (6) find direct correlations to other disciplines, and (7) explore career options related to computer-generated imagery.

- Prerequisite: Successful completion of Computer Graphics I and II (or equivalent) with a C+ or higher
- A Core 40 and AHD course
- One credit per semester



**Computer Graphics IV (Digital Design) (1140) DC**

A continuation to Computer Graphics III, students in computer graphics engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works of art. Students create computer graphics incorporating desktop publishing, multi-media, digitized imagery, computer animation or Web page design. Additionally, Students: 1) reflect upon the outcomes of these experiences, (2) explore historical connections, (3) Write about the process, (4) make presentations about their progresses at regular intervals, (5) work individually and in groups, (6) find direct correlations to other disciplines, and (7) explore career options related to computer-generated imagery.

- Prerequisite: Successful completion of Computer Graphics I, II and III (or equivalent) with a C+ or higher
- A Core 40 and AHD course
- One credit per semester

**Computer Graphics V (Digital Design) (1238)**

A continuation to Computer Graphics IV, students in advance level computer graphics need to be independent self-starters. Students will design creative projects and goals based on individual explorations and artistic interests.

- Prerequisite: Computer Graphics I, II, III, and IV
- A Core 40 and AHD course
- One credit per semester
- Instructor approval

**Computer Graphics VI (Digital Design) (1239)**

A continuation to Computer Graphics V, students in advance level computer graphics need to be independent self-starters. Students will design creative projects and goals based on individual explorations and artistic interests.

- Prerequisite: Computer Graphics I, II, III, IV, and V
- A Core 40 and AHD course
- One credit per semester
- Instructor approval

**Photography (1070) Elective 10-11-12**

Production – Students will create black and white photographs utilizing their 35-mm SLR camera and basic darkroom procedures. Students process their own black and white film, produce contact sheets and finished prints. Students will build a pinhole camera and create photographs with the handmade camera. Students will be introduced to film digital and video production. Art History – Students search for meaning, significance, and direction in their work through the study of historical and contemporary media arts. Photography's history and its impact on culture will be topics of classroom discussion. Art criticism – Students search for meaning and significance in their own work by examining the relationship between content, form, function, and meaning. Aesthetics – Students will examine aesthetic issues surrounding media arts. Interdisciplinary – Students will find direct correlation to other school disciplines. Career Exploration – Students will be introduced to career options related to media arts.

- Prerequisite: Introduction to Two-Dimensional Art and Advanced Two-Dimensional Art I or Introduction to 3-D Art
- Due to use of cameras, film, paper and chemicals, this class will require some student expense. The school does not supply cameras, film or printing paper. Students must have an adjustable (manual) 35-mm SLR camera with a light meter.
- A Core 40 and AHD course
- This course may be fast-tracked with a GPA of 2.5 or above (grades 10-11-12)

**Photography II (1080) Elective 10-11-12**

Students will demonstrate skill and in-depth understanding of the media arts and processes. Students will apply skills to create work that communicates personal meaning. Presentation of finished prints will involve cropping, mounting, matting, and museum techniques for preservation. Students will explore digital photography and photo editing. Art History – Students will hypothesize about future developments in the media arts based on current political, economic, technological, environmental, and historical trends. Students will analyze issues related to chronology and discuss and debate these issues in relation to photography's historical perspective. Art Criticism – Students will use appropriate art terminology when discussing their own works and the works of others. Students will analyze how the visual organization of a photograph affects the communication of ideas and suggest alternatives. Aesthetics – Students will research puzzling works of art that challenge one's personal artistic preferences and identify personal criteria for judging excellence in art. Interdisciplinary – Students will find direct correlation to other disciplines. Career Exploration – Students will document and create a media arts career plan based on research and investigation of educational possibilities..

- Prerequisite: Media Arts I
- Due to the use of cameras, film paper, and chemicals, this class will require some student expense. The school does not supply cameras, film, or printing paper.
- Students must have an adjustable (manual) 35-mm SLR camera with a light meter.
- A Core 40 and AHD course

**AP Art History 1-2 (1230-1235) Elective 10-11-12 AP**

AP Art History explores the history, meaning, and influences behind famous works of art from a variety of periods and cultures. In this course students will be able to examine and analyze major forms of artistic expression from the past and present. This course includes academic work, period appropriate projects, discussion of works of art, and a field trip to the Indianapolis Museum of Art in the spring. AP Art History is intended to provide the same benefits to secondary school students as those provided by an introductory college course in art history.

- Students are expected to take the AP Art History test after completion of this course.
- A Core 40 and AHD course
- An AP course awarding an AP-level weighted grade

**IB Visual Arts (1236-1237) Elective 11-12**

This course will prepare students for the International Baccalaureate Standard Level art examination. Students will develop a portfolio of work and a research workbook representing their individual exploration and artistic expression. Students will create work in a variety of media as is appropriate for their personal research. The structure of the course is designed to provide students with the opportunities to explore their cultural perspective and compare it to contemporary examples as well as historical movements. At the end of this course students will have a polished and balanced portfolio of work as well as workbook documentation of their research and project development.

- A Core 40 and AHD course
- An IB Course awarding an AP-level weighted grade

**AP 2-D Design I-II (1250-1255) Elective 10-11-12**

**AP 3-D Design I-II** (1250-1255) Elective 10-11-12**AP Drawing I-II** (1250-1255) Elective 10-11-12

The AP Studio Art program is designed for students who are seriously interested in the visual arts. This is a college level course, and students are expected to submit a portfolio of artwork for evaluation near the end of the school year.

Upon entrance of this course, students will choose an area of concentration: 2-D design, 3-D design, or drawing. The student will also be placed in a higher level class that coincides with their area of focus. For example, an individual who is taking AP Studio Art in 3-D Design will be placed in a higher level Sculpture or Ceramics class.

- Candidates should meet with their AP Studio Advisor after registration for early preparation and instruction.
- Prerequisite: Painting I-II, Advanced Art II- III, or permission of instructor.
- An AP course awarding an AP-level weighted grade

These three courses may be taken after a portfolio review and approval of the instructor and/or department chairperson. See your counselor for details and registration.

**The instructor will assist those students that are interested in preparing a portfolio for submission to the Advanced Placement Program for college credit.**

## **BUSINESS & INFORMATION TECHNOLOGY**

**Chairperson: Lance Garvin, 317-387-2660**

**Preparing for College and Careers** (1745) Required 9

Preparing for College and Careers addresses the knowledge, skills, and behaviors all students need to be prepared for success in high school, college, career, and life by exploring their interests, values and goals. 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; explorations 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; computer technology skills; and managing personal resources and finances.

- Freshman Year Required Course

**COMPUTER SCIENCE CONCENTRATOR PATHWAY****Principles of Computing** (1318-1319) Elective 9 or 10

This introductory Computer Science class discusses terminology, concepts, theory and fundamental skills used in implementing information systems. Topics include the history and trends of computer, operating systems, security and other concepts associated with applying the principle of good information management to organizations. Additional, students will have the opportunity to utilize basic programming skills to develop scripts designed to solve problems.

- This course is a two-semester class
- Dual Credit option
- Graduation Pathway Course

**Computer Science I** (1322-1323) Elective 10, 11, 12 DC

Computer Science I challenges students to explore the limits of what computers can accomplish. In this course, students analyze and design solutions to problems using programming skills. The fundamental concepts of programming are explored through the hands-on use of computing devices. Additional topics include algorithms, debugging and verification, documentation, security and privacy, communication and collaboration, and careers. All topics are an intrinsic part of the software development lifecycle.

- Prerequisites: **Principles of Computing**  
Students must have passed Algebra 1 with a C or better
- Aligned with postsecondary course for dual credit; must have successful completion of both semesters and other qualifying requirements to earn dual credit
- This course awards honors-level weighted grade

**Computer Science II** (1324-1325) Elective 11, 12 DC

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.

- Prerequisite: Computer Science I with a C or better
- Aligned with postsecondary course for dual credit; must have successful completion of both semesters and other qualifying requirements to earn dual credit
- This course awards honors-level weighted grade

**COMPUTER SCIENCE III: CYBERSECURITY** (1891-1892) Elective 11, 12, DC

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.

- Required Prerequisite: Computer Science I and Computer Science II
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum

**DIGITAL DESIGN CONCENTRATOR PATHWAY****Principles of Digital Design** (1962A-1963A) Elective 9,10,11,12

This preparatory course introduces students to the fundamentals of design. Students will create compositions, illustrations, layouts, and designs which demonstrate the effective usage of the elements and principles of design. Students will participate in creative problem-solving challenges and critiques. Ideas will be generated both manually and digitally. Students will also gain knowledge in the principles of photography and will capture photos demonstrating basic photographic composition techniques.

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

**Digital Design Graphics (1962B-1963B) Elective 10, 11, 12**

Digital Design Graphics will provides students with the opportunity to explore the eight common types of graphic design. Graphics and illustrations will be developed though work with both vector-based and raster-based page layout applications. A full range of input methods will be utilized along with differentiated output methods and project-based class projects. Additionally, intermediate photography concepts will be introduced and implemented. Students are encouraged to take the Adobe Certified Professional certifications.

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

**Interactive Media (1962-1963 2 hours) Elective 10, 11, 12**

This course provides an essential foundation for the student interested in learning the principles of web design and app design and the foundations of interactive and digital media. Students will plan and construct websites using HTML and CSS, design user interface (UI) components, and understand the user experience as it relates to audience analysis. Emphasis will be placed on the planning, designing, and implementation of digital products and prototypes as it relates to layout and design techniques and the dynamic visual aesthetic aspects. Students will also gain knowledge in the basic principles of animation and participate in the planning and developing of short animations. Interactive Media prepares students for careers in business and industry working with interactive media products and services. Students are encouraged to take the Adobe Certified Professional certification.

- Recommended Grade Level: 11, 12
- Required Prerequisite: **Principles of Digital Design & Digital Design Graphics**
- Credits: 2 semester course, 2 semesters required

**Graphic Design and Layout (1312-1313) Elective 10, 11, 12**

Graphic Design and Layout introduces students to the development of digital visual communication documents and commercial products. This course includes both digital and hands-on learning experiences that incorporate a variety of visual art techniques as they relate to the design and execution of page layouts and illustrations with a focus on advertising and promotional materials. Visual communication skills will be highlighted through the study of effective methods used to design commercialized products that impart information and ideas. Instruction also includes concepts of basic photography, silk screening, airbrushing techniques, product package design, branding, and more. Students are encouraged to take the Adobe Certified Professional certifications.

- Required Prerequisite: **Principles of Digital Design & Digital Design Graphics**
- Credits: 2 semester course, 2 semesters required

**BUSINESS CONCENTRATOR PATHWAYS****Principles of Business Management (1412-1413) Elective 9, 10, 11, 12**

This two-semester course provides students the framework for future success as they prepare for the business world. Units include the study of marketing, management, entrepreneurship, and basic business finance/accounting. This course will help students explore what other business administration courses they may want to take. This is the 1<sup>st</sup> level/foundation course for pathways in management, marketing, and accounting.

- First Level Principles class for Accounting/Business Admin/Marketing & Sales/Supply Chain pathways

**Accounting Fundamentals 1-2 (1710-1720) Elective 10, 11, 12 DC**

Accounting is a business course that introduces the language of business using Generally Accepted Accounting Principles (GAAP) and procedures for proprietorships and corporations 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. Instructional strategies include the use of computers, projects, simulations, case studies, and business experiences requiring the application of accounting theories and principles. This is a MUST for students pursuing an interest in business.

- Prerequisite: **Principles of Business Management**
- Recommended Prerequisites: Digital Applications and Responsibility, and Algebra 1
- Aligned with postsecondary course for dual credit; must have successful completion of both semesters and other qualifying requirements to earn dual credit

**Advanced Accounting (1721-1722) Elective 11-12**

This advanced-level business course builds upon the Generally Accepted Accounting Principles (GAAP) and procedures learned in Accounting Fundamentals 1-2. Emphasis is placed on managerial decisions made in corporate accounting, including in-depth analysis of financial statements. Instructional strategies include the use of spreadsheets, word processing, and accounting software. Projects, simulations, case studies, and business experiences are used to apply accounting theories and produce appropriate financial reports. Advanced Accounting is an important class for those students interested in pursuing a business degree in college or who plan on owning a business in the future.

- Prerequisite: **Accounting Fundamentals 1-2**
- Recommended Prerequisite: Algebra 2

**Management Fundamentals 1-2 (1870-1871) Elective 10, 11, 12 DC**

Business Management is all about people. Focus is on the use of interpersonal skills in a business environment in order to plan and organize activities, monitor and motivate employees, and evaluate success of a business. Management exists in all industries, and across all careers, and is a necessary element for anyone who wants to be more than “just an employee”. Students work to enhance and refine critical thinking, leadership, and decision-making skills. Coursework is inquiry (question) based to facilitate research to solve business problems. Students who are successful in this class have positive attitudes, are self-motivated, and have good problem-solving skills. This is the 2<sup>nd</sup> level course in the Management Pathway, and can be taken concurrently with Marketing Fundamentals and/or Accounting Fundamentals.

- Prerequisite: **Principles of Business Management**
- Dual Credit: Eligible for Ivy Tech credit in BUSN 101 Introduction to Business-part of the core-transfer library-with successful completion of both semesters and other qualifying requirements. Although open to sophomores, juniors and seniors generally perform better

**Administrative and Office Management 1-2 (1872-1873) Elective 11, 12 DC**

Capitalizes on the skills developed during Principles of Business Management. Students integrate the management functions to enhance effectiveness as leaders. Focus is on applying best business practices for various situations and expanding interest in all areas of business. Membership in Business Professionals of America is highly recommended.

- Prerequisite: **Principles of Business Management** with a C or better. College-bound business majors may take this course without meeting the prerequisite to help prepare for college business classes.
- Dual Credit: Eligible with successful completion of both semesters and other qualifying requirement.

**Marketing Fundamentals 1-2 (1860-1861) Elective 10, 11, 12 DC**

Marketing Fundamentals provides a basic introduction to the scope and importance of marketing in the global economy. Emphasis is placed on oral and written communications, mathematical applications, problem solving, and critical thinking skills as they relate to advertising/promotion/selling, distribution, financing, marketing information management, pricing, and product/service management.

- Prerequisite: **Principles of Business Management**
- Aligned with postsecondary courses for dual credit; must have successful completion of both semesters and other qualifying requirements to earn dual credit.

**Strategic Marketing 1-2 (1862-1863) Elective 11, 12**

Strategic Marketing builds upon the foundations of marketing and applies the functions of marketing at an advanced level. Students will focus on 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. Students do project-based learning activities for other school-related functions. Strategic Marketing students will operate and manage the student bookstore.

- Prerequisite: **Marketing Fundamentals 1-2**

**Logistics Management (1414-1415) Elective 10,11,12**

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.

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

**Supply Chain Management 1-2 (1416-1417) Elective 10, 11, 12 DC**

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.

- Required Prerequisites: **Principles of Business Management & Logistics Management**
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

**BUSINESS CAPSTONE CLASSES****Business Administration Capstone 1-2 (1875-1876) Elective 12 DC**

Business Administration Capstone is a culmination course for the Marketing, Accounting, and/or Management Pathways. Coursework is inquiry (question) based to facilitate research to solve business problems and expand knowledge in Marketing, Management and/or Accounting. This is the final level course in the Marketing, Accounting, and/or Management Pathway. Course prerequisites include Marketing Fundamentals and Strategic Marketing OR Accounting Fundamentals and Management Fundamentals.

- Dual Credit: Eligible for Ivy Tech credit in BOAT 216

**Work Based Learning Capstone, Multiple Pathways (Internship Program) (9908-9909—3 credits; 9912-9913—2 credits; 9910-9911 – 1 credit) Elective 11, 12**

This course is designed for the senior student seeking an experiential learning opportunity in a specific career field. Students are released from school two or three periods each day. A related classroom experience is also provided. The goal of the program is to provide work related experiences for both those students who are going on to college or other post-secondary institutions and for those students seeking employment directly after high school graduation. Completion of a portfolio is required.

- Enrollment by application and instructor approval only
- A minimum of 2.5 GPA is required
- Students must have transportation
- Up to three credits per semester; students must work a minimum of 12-18 hours per week depending on the number of released periods. Some employers require students to work approximately 20 hours per week

**ADDITIONAL BUSINESS CLASSES****AP Computer Science Principles (4733-4734) Elective 9, 10**

AP Computer Science Principles introduces students to the breadth of the field of computer science. In this course, students will learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs. They will incorporate abstraction into programs and use data to discover new knowledge. Students will also explain how computing innovations and computing systems, including the Internet, work, explore their potential impacts, and contribute to a computing culture that is collaborative and ethical.

- Recommended prerequisite – successful completion of Algebra I
- Advanced Placement: students are eligible to take the AP exam.
- This course awards an AP-level weighted grade.

**AP Computer Science A (4731-4732) Elective 11, 12**

AP Computer Science A introduces students to computer science through programming. Fundamental topics in this course 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.

- Prerequisite: Students must have passed **AP Computer Science Principles OR Computer Science I** with a C or better and/or have the instructor's permission.
- Advanced Placement: Students are eligible to take the AP Computer Science A exam.
- This course awards AP-level weighted grade.

**Business Law and Ethics 1-2 (1810-1820) Elective 10, 11, 12 DC**

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

- Aligned with postsecondary course for dual credit; must have successful completion of both semesters and other qualifying requirements to earn dual credit.
- The second semester of the course (1820) can be taken without having the first semester.

### **Digital Applications and Responsibility 1-2 (1400-1430) Elective 10, 11, 12 DC**

This course teaches basic computer technology skills and the use of Microsoft Office applications, including Word, Excel, PowerPoint, Access, and Outlook. Digital Applications and Responsibility provides an innovative and effective way to practice using Microsoft Office applications and learn the basics of computer technology. Simulated labs help students acquire and retain the basic skills they need to become proficient in Microsoft Word, Excel, PowerPoint, Access, and Outlook. The course is also designed to prepare students for the Microsoft Office Specialist certification exams.

- Earning MOS Certification in PowerPoint, Word, and Excel qualifies as a Graduation Pathway
- Recommended for all students.
- Recommended Prerequisite: Keyboarding skills.
- Eligible for dual credit--aligns with Introduction to Microcomputers in the Indiana Core Transfer Library; must have successful completion of both semesters and other qualifying requirements to earn dual credit.

### **Personal Financial Responsibility (Personal Finance) (1800) Elective 10, 11, 12**

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

- Recommended for all students

## **ENGLISH**

**Chairperson: Megan Kuykendall 317-347-8502**

### **English 9 (2110-2120) (two-semester class)**

Through the integrated study of language, literature, writing, and oral communication, English 9 students will further develop their use of language as a tool for learning and thinking. Students practice identifying, analyzing, and composing with different elements, structures, and genres of written language. Literature instruction focuses on opportunities to ...

- Read and comprehend a broad variety of literature applying appropriate reading strategies to enhance reading skills and literary appreciation which includes the ability to (1) identify and analyze the elements of story structure, (2) utilize literature and expository material related to the world of work and technical documents, (3) identify literature by genre, (4) identify the author's purpose and perspective, (5) recognize bias and propaganda and (6) identify and analyze elements of drama; and
- Develop vocabulary through (1) decoding, (2) the use of Greek and Latin roots, (3) literary terms and the use of glossaries, (4) contextual clues and (5) independent reading.

The composition component of language arts requires students to write for various audiences and purpose while strengthening skills in paragraph and multi-paragraph writing. Using technology, students will receive instruction and practice in the writing process, prewriting, summarizing, analyzing and editing. Composition will also provide opportunities to create multiple types of writing, including expository essays of persuasion and literary analysis, and technical writing assignments in various forms including business, résumés, and lab reports.

### **English 9 Honors (2128-2129) (two-semester class)**

Please see description for English 9.

This honors two-semester, integrated study of World Literature builds the basis for advanced placement English courses. Students selecting this class should have a strong foundation in grammatical concepts, writing process and conventions, rhetorical techniques, research, and approaches to literary criticism (sociological, psychological, and archetypal). Students should expect lengthy reading assignments in a variety of genres: mythology, classical epics, Shakespearean plays, the modern novel, non-fiction essays, poetry, and short stories. First semester focuses on individual and cultural values and their effect on man's decisions expressed through archetypes, the classical epic, and Shakespearean tragedies. Second semester focuses on the evolution of cultures through war, religion, nature, and technology. Assessments include written examinations, evaluative writing assignments, reader's journals, oral presentations, recitations, and debate. A writing portfolio will be maintained. Compositions and expectations are more challenging, not more copious.

- Prerequisite: Completion of HA English 8 **OR** 8<sup>th</sup> grade English teacher recommendation and appropriate test scores for Honors English 8 students.
- This course awards a honors-level weighted grade and is a pre-IB English class
- Must maintain a C or higher semester grade

### **English 10 (2210-2220) (two-semester class)**

English 10 reinforces and continues to make full use of many of the activities and skills of English 9.

Students will respond critically, reflectively, and imaginatively to literature and nonfiction texts. Students will practice using language for different, sophisticated purposes, including: (1) identifying and forming conclusions; (2) recognizing and using persuasive devices; (3) judging an author's purpose, perspective, and expertise; and (4) reading and interpreting public documents; and develop vocabulary through (1) contextual clues, (2) literary terms and the use of glossaries, and (3) independent reading. The composition component of language arts requires students to write for various audiences and purpose while strengthening skills in paragraph and multi-paragraph writing. Composition will also provide opportunities to create multiple types of writing, including expository, argumentative, and literary analysis essays. The formal study of grammar, usage, spelling, and language mechanics is integrated into the study of writing. Using technology, students will receive instruction and practice in the writing process including prewriting, drafting, revising, editing, and publishing.

- One English credit per semester

### **English 10 Honors (2223-2224) (two-semester class)**

This honors two-semester, integrated study of American Literature builds the basis for advanced placement English courses. This course involves an intensive practice of composition techniques, literary analysis and research along with an emphasis on American history reflected in literature. First semester begins with the study of the

country's earliest writers, continues through the Enlightenment, Romantic, and Transcendental periods, as well as Regionalism, Realism and Naturalism centered pieces. Second semester focuses on Modernism, surrounding the Roaring Twenties and The Great Depression. In addition, students will compose a fully documented multi-source mini-research paper. Assessments will include oral commentaries of significant passages, individual formal and informal presentations, peer group discussions and projects, and written examinations and compositions of the expository, persuasive and creative nature. Compositions and expectations are more challenging, not more copious.

- This course receives a honors-level weighted grade and is a Pre-IB English class.
- Prerequisite: Students who have earned a C or better in English 9 Honors, or a student who has the previous semester teacher's recommendation and a semester grade of an A.
- Must maintain a C or better semester grade

### **English 11 (2310-2320) (two-semester course)**

Through the integrated study of language, literature, composition, and oral communication, English 11 students further develop their use of language as a tool for learning and thinking and as a source of pleasure. In English 11, students move from predominantly analyzing and using the elements of written language to making judgments based on those analyses. English 11 also incorporates a literary canon, much of which is from a culture or time period different from that of the students – usually a survey of American Literature from different periods. Literature instruction focuses on opportunities to:

- develop criteria for judging and analyzing literary works, speeches, essays, and poetry;
- select appropriate reading skills and strategies to: (1) distinguish elements in literature that make it a reflection of the social, economic, political thinking, or condition of the times; (2) analyze literature as it reflects divergent points of view; and (3) identify how contemporary writing reflects past tradition and movements;
- respond critically, reflectively, and imaginatively to American Literature, including major authors from the Puritan Era, Age of Reason, the Romantic Period, the Civil War Era, the Twenties, Modern Black Literature, the Forties, the Fifties, and Modern Drama; and recognize the relevance of this literature in today's world; and
- develop vocabulary through: (1) decoding, (2) the use of Greek and Latin roots, (3) literary terms and the use of glossaries, (4) contextual clues, (5) recognizing analogies, and (6) independent reading.

The *Composition* component of language arts provides students with opportunities to produce a variety of forms including persuasive writing, synthesis and analysis of information from a variety of sources, completing complex forms, describing procedures, giving directions, and using graphic forms to support a thesis. Thus, composition in Grade 11 continues to refine students' abilities to articulate sophisticated ideas in an organized manner. Increased sensitivity to context-audiences, purposes, and other environmental considerations, helps students better communicate their thoughts. In addition, students develop greater facility with the back-and-forth movement between analysis and synthesis. That is, students analyze sources with increasing attention to detail while they synthesize or compose written texts, using these analyses in accordance with a given purpose such as persuasion, exposition, descriptions, and so forth. Students produce a research paper following study in the fundamentals of writing a research paper.

The formal study of grammar, usage, spelling, and language mechanics is integrated into the study of writing. Using technology, students receive instruction and practice in the writing process including prewriting, drafting, revising, editing, and publishing. Students are encouraged to use one of the manuals of style such as Modern Language Association [MLA], American Psychological Association [APA], or the Chicago Manual of Style [CMS].

*Oral Communication* (speech) continues to emphasize effective listening and speaking techniques. This includes providing opportunities for students to integrate other reading and language arts skills as they incorporate correct grammar, usage, vocabulary, reading, and composition skills while learning to express ideas verbally. Grade 11 increasingly calls attention to the contexts in which oral communication takes place. Student expectations include: (1) communicating in academic and non-academic language environments; (2) communicating responsibly, critically, and confidently on specialized topics when speaking in public; (3) analyzing speech in terms of socio-cultural values, attitudes, and assumptions; (4) enhancing speaking with appropriate nonverbal cues; (5) adapting to physical professional and student speeches on content and delivery; and (6) demonstrating a basic knowledge of parliamentary procedure.

- One English credit per semester

### **English 11 AP Language and Composition / IB Language A1~First Year (2576-2577) (two-semester course) Prerequisite: summer reading assignment and paper.**

First semester students will focus on the works of Miller, Thoreau, and Shelley, as well as various multi-modal visual texts, traditional art, non-fiction, and poetry. Students will use the Socratic seminar discussion format for practice in oral expression and philosophical debate. Written essays, verbal discussion, and a formalized debate will be used for in-class assessments. Students will be instructed in alignment with College Board curricular units for the course, namely focused on the three core foci of AP Language: rhetorical analysis, multi-source synthesis, and self-structured argumentation. Analytical writing and close textual reading will continue to be developed and refined in preparation for both the AP and IB exams. Our IB Diploma students will work with supportive IB staff to develop appropriate extended essay topics, beginning over the winter break. In the spring, the teacher will conduct the IB Individual Oral Presentation over a student-selected subject of interest utilizing both a textual and a multi-modal visual text. Second semester students will focus on the works of Kafka and Shakespeare, as well as various multi-modal visual texts, documentaries, protest songs, and non-fiction. Students will concentrate on the detailed techniques of style, distinguishing different types of style in literature, and developing their own written style. Assessments will be both oral presentations and written essays in line with reviewing for the AP and IB exams.

- **Prerequisite:** Completion of English 10 Honors and/or English 10 and teacher recommendation
- AP English exams are covered by a state grant at the junior and senior level

This course earns a AP-level weighted grade and is an IB Course

### **English 12 (2410-2420) (two-semester course)**

Grade 12 continues to refine students' ability and desire to learn and communicate about language and literature. While students developed judgments informed by keen literary analysis in Grades 9-11, in Grade 12 they practice explaining and defending their readings to others. In addition, the emphasis on different cultural contexts is intensified in a focus on world literature. To negotiate these texts, students learn to identify and communicate about the broad themes, trends, and cultural issues present in world literature. Literature instruction focuses on opportunities to:

- apply appropriate reading skills and strategies to make and defend judgments about written quality and content of literary works, written and technologically generated material, literary genres, conventions, and story structure;
- respond critically, reflectively, and imaginatively to the literature of outstanding world writers, become acquainted with cultures of other countries, study themes that related to mankind and outstanding world writers, and analyze literature as it reflects a divergent point of view in all literary periods; and
- develop vocabulary through: (1) decoding, (2) the use of Greek and Latin roots, (3) literary terms and the use of glossaries, (4) contextual clues, (5) recognizing analogies, and (6) independent reading.

The *Composition* component of English 12 continues to provide students with opportunities to hone their writing. Writing at this stage has: (1) a clearly identified audience, (2) a well-articulated purpose and thesis, and (3) a structured body that fulfills its stated purpose and supports its thesis in a way accessible to its audience. Writing at this stage is also well informed by careful research and intelligent analysis. Using technology, students are able to produce polished final documents. Polished writing requires following through with all phases of the writing process (prewriting, drafting, revising, editing, and publishing), at which all students should be proficient. All writing should meet the four criteria outlined above and have been through all stages of the process just described, including persuasive writing, synthesis and analysis of information from a variety of sources, and reflective essays. Writing a research paper is an integral part of the curriculum. Students are also able to complete complex

forms, describe procedures, give directions, and use graphic forms to support a thesis. The formal study of grammar, usage, spelling, and language mechanics is integrated into the study of writing. Students are encouraged to use one of the manuals of style such as Modern Language Association [MLA], American Psychological Association [APA], or the Chicago Manual of Style [CMS].

*Oral Communication* (speech) continues to emphasize the organization of ideas, awareness of audience, and sensitivity to context in carefully researched and well organized speeches. Student expectations include: (1) presenting facts and arguments effectively, (2) analyzing speeches in terms of socio-cultural values, attitudes, and assumptions, (3) recognizing when another does not understand the message being delivered, (4) utilizing Aristotle's three modes of proof, (5) utilizing elementary logic such as deductive, inductive, causal, and analogical forms of reasoning, and (6) expressing and defending, with evidence, one's thesis.

- One credit per semester

#### **English 12 Introduction to Literature (2492) (one-semester course) DC (Dual Credit)**

This course is designed to offer college credit to students who are not already on the AP track. Those students will be given priority in filling this course. Students must qualify with appropriate SAT, ACT, or Accuplacer scores before students are officially enrolled in this course. There is also a college fee that must be paid at the start of the semester. This course is a survey of some of the major authors of the Western and Eastern Worlds, including minority authors. This course will take a comparative approach to analyzing representative works produced by writers of various nationalities. It may be organized by historical period, theme, or genre. Integrated into the study of world literature will be classroom discussions and oral presentations; students will employ techniques of expository writing to express ideas about their reading. Students will use technology to support the writing process.

- This is a one credit, one semester course.
- It should be taken opposite English 12 Composition
- This course is applicable toward the English credit graduation requirement for grade 12.
- Prerequisite: Student must have passed Honors English 11 or have received an "A", "B", or "C" in English 11.
- Students must meet eligibility requirements set by the University and PSAT scores. Taken for dual credit only.

#### **English 12 Ethnic Literature (2497-2498) (one semester course 2496, spring, or year-long course)**

This is not a college credit course. Ethnic literature provides students with a study of literature produced by writers representing various ethnic cultures. Students are provided the opportunities to explore ethnic experiences, themes, and ideas, as well as the contributions of multicultural authors to this particular type of literature. The course focuses on specific ethnic issues, including the formation and expression of identity and problems and issues of a particular interest to a given ethnic group. The focus for this course will be African-American literature. Ethnic literature is a senior course which may be taken for one semester when paired with Composition or a year-long course encompassing English 12 academic standards.

- This is a one credit, one semester course offered in the spring or two credit, two-semester course if taken for the year.
- This course is applicable toward the English credit graduation requirement for grade 12.

#### **English 12 Composition (2493) (one-semester course F) DC (Dual Credit)**

This course is designed to offer college credit to students who are not already on the AP track. Those students will be given priority in filling this course. Students must qualify with appropriate SAT, ACT, or Accuplacer scores before students are officially enrolled in this course. There is also a college fee that must be paid at the start of the semester. This course is designed to improve a student's writing through frequent writing and revising. Students will write for different audiences and purposes, using the writing process of prewriting, drafting, peer sharing, revising, editing, and producing a final product. In addition to providing instruction in writing clear, coherent, and organized text, this course will teach strategies for collecting and transforming data for use in writing and using criteria to evaluate and revise writing. Though not every piece of writing will be put into final form, those that are should follow accepted conventions of language, style, mechanics, and format. Students will use technology to support the writing process.

- This is a one credit, one semester course.
- This course should be taken opposite English 12 Introduction to Literature.
- This course is applicable toward the English credit graduation requirement for grade 12.
- Students must meet eligibility requirements set by the University and PSAT scores. Taken for dual credit only.

#### **English 12 AP Literature and Composition / IB Language A1~Second Year (two-semester course)**

Students will be expected to read challenging texts (playwrights such as Shakespeare and Wilson, authors such as Tan and Orwell, poets such as Hughes and Dickinson) at home as well as in the classroom. Assessments include Timed Writings, Out-of-Class Papers, and Socratic Seminars. Writing assignments will be frequent, including weekly in-class essays. Students will be expected to participate fully in class discussions and make presentations. Students should make use of technological resources both in researching and in producing their papers. This class is structured to provide the student with strong preparation for the May AP/IB exam.

- See counselor for fee waiver authorization for IB exams
- Prerequisite: English 11 AP Language and Composition or Teacher Recommendation and AP Instructor Approval

#### **Creative Writing (2570) (one-semester course) (F)**

Creative Writing provides students with ample opportunities to combine literary creativity with the discipline of written discourse. The concept of the manipulation of language to convey ideas, feelings, moods and visual images should be the basis of the course. Students become familiar with standard literary elements through the reading and study of published prose and poetry and are taught to use those elements in their own writing. Additionally, students learn strategies for evaluating and responding to their own writing and the writing of others in a peer-sharing component. In this peer-sharing component, students receive specific training in providing constructive, substantive feedback, while role-playing as likely readers of each creative work. Representative models of literary excellence may also be studied. This class is recommended for juniors and seniors with established skills in composition and a desire to share their creative works. The fall semester emphasizes a short story writing while the spring semester concentrates on script and poetry writing.

- Access to a computer and printer is essential.

#### **Speech (2610) (one-semester course) (F/S)**

Speech provides the study of and practice in the basic principles and techniques of effective oral communication. This course includes instruction in adapting speech to different audiences and purposes. Students have opportunities to make different types of oral presentations including: (1) viewpoint, (2) instructional, (3) demonstration, (4) informative, (5) persuasive, and (6) impromptu. Students are given opportunities to express subject matter knowledge and content through creative, analytical, and expository writing, as well as reading a variety of literary genre related to course content and speaking assignments. This course emphasizes research using technology and careful organization and preparation. Students also practice and develop critical listening skills.

#### **Journalism (2511) (one-semester course) (F/S)**

Journalism is the study of the art of reporting and the profession of journalists. This course includes the process involved in: (1) news gathering, (2) reporting and writing news stories, (3) the legal and social responsibilities involved in newspaper publications, and (4) THE ETHICS OF ACCURATE AND FAIR REPORTING. This course includes extensive reading of models of excellent journalistic techniques and evaluates and analyzes journalistic writing through discussions and critiques.

**Digital Photojournalism (2515) (one-semester course) (F/S)**

Digital Photojournalism is geared toward students wishing to become photographers for the newspaper or yearbook staff or for students who have an interest in digital photography and its uses in the professional media. The class focuses on journalistic storytelling through pictures, with an emphasis on composition and the technical aspect of digital photography, including proper use of cameras, computers, PhotoShop, flatbed and negative scanners. Several projects will be completed throughout the course.

- Prerequisite: C or above in Journalism or instructor approval
- An SLR camera is recommended

**Etymology (3010) Elective 10-11-12 (F/S)**

Etymology provides instruction in the derivation of English words and word families from their Latin, Greek, and/or Germanic roots. In addition, this course provides a study of the connotative and denotative meaning of words in a variety of contexts. Students study the origins and meanings of English words, including roots, prefixes, suffixes and reasons for language change. This course introduces students to tools and resources for etymological study and encourages them to be curious about the English language.

- Prerequisite: Students taking this course should have a "C" average or higher in their English courses.
- This course is not part of a standard foreign language sequence.

**Student Publications****Yearbook (2530-2540) (two-semester course)**

This course provides the study of and practice in gathering and analyzing information, interviewing, and note taking for the purpose of: (1) writing, (2) editing, (3) publishing for printing, and (4) broadcast media, including student publications. This course includes instruction and practice in effective journalistic writing forms and techniques as well as layout, design, and typography. Representative examples of amateur and professional journalism are studied. The concept of responsible journalism also is discussed. Student publications conform to an appropriate style guide, such as the *Associated Press Stylebook and Libel Manual*. It is recommended that desktop publishing technology be used to support the journalism curriculum. Student Publications offers practical training in publishing the school yearbook. Students plan, publish, market, and distribute their school publications.

- A one-credit course
- Application process required for acceptance

**Newspaper (2550-2560) (two-semester course)**

This course provides the study of and practice in gathering and analyzing information, interviewing, and note taking for the purpose of: (1) writing, (2) editing, (3) publishing for printing, and (4) broadcast media, including student publications. This course includes instruction and practice in effective journalistic writing forms and techniques as well as layout, design, and typography. Representative examples of amateur and professional journalism are studied. The concept of responsible journalism also is discussed. Student publications conform to an appropriate style guide, such as the *Associated Press Stylebook and Libel Manual*. It is recommended that desktop publishing technology be used to support the journalism curriculum. Student Publications offers practical training in publishing the school newspaper. Students plan, publish, market, and distribute their school publications.

- Application process required for acceptance

**ENGLISH AS A NEW LANGUAGE**

**Chairperson: Mrs. Kurt Benjamin, Assistant Principal, 317-387-2600**

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 Limited English Proficient (LEP) students so that they improve their proficiency in listening, speaking, reading, writing and comprehension of Standard English. Students study English vocabulary used in fictional texts and content-area 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. Placement in ENL classes is offered to students whose first language is not English, on the basis of results of a language screening given upon enrollment or on a post-test given at the end of the previous school year. Language proficiency is measured on a scale of 1-5, with 1 being negligible English and 5 being native-speaker proficiency. Students exit the ENL program at proficiency level 5, and in compliance with federal law, their academic progress is monitored to ensure that they are succeeding without ENL support. A total of eight ENL credits may be counted toward the required English credits needed for the Core 40 diploma.

**Newcomer ENL (2031-2032)**

Beginning ENL is for newly-arrived language-minority students with little or no English proficiency (Level 1). The focus is primarily on basic interpersonal communication skills, with an introduction to the use of English to achieve academically in content areas, as well as to the use of English in socially and culturally appropriate ways. Students may take this course for only one year.

- Two credits earned in this course

**ENL 1-2 (2033-2034)**

This course is for students who qualify for ENL support with a language proficiency ranging from a high level 1 through level 4. The focus of instruction is primarily on academic and socially and culturally appropriate English skills from the English 9 Indiana State standards.

- Two credits earned in this course

**ENL 3-4 (2035-2036)**

This course is for students who qualify for ENL support with a language proficiency ranging from a high level 1 through level 4. It focuses on academic and socially and culturally appropriate English skills from the English 10 Indiana State standards.

- Two credits earned in this course

**ENL 5-6 (2037-2038)**

This course is for students who qualify for ENL support with a language proficiency ranging between levels 2 and 4. It focuses on academic and socially and culturally appropriate English skills from the English 11 Indiana State standards.

- Two credits earned in this course

**ENL 7-8 (2039-2040)**



This course is for students who qualify for ENL support with a language proficiency ranging between levels 2 and 4. It focuses on academic and socially and culturally appropriate English skills from the English 12 Indiana State standards.

- Two credits earned in this course

**Newcomer ENL Resource (2041-2042) (No credit)**

Newcomer ENL resource is only for students who are also taking Newcomer ENL. This is an elective course for level 1 beginners to receive extra time on tests, individualized or small group instruction of content areas courses and assistance with homework or other assignments.

**ENL Resource (9995-9996) (No credit)**

This course provides resource help for ENL students, including assistance with homework and extra time on tests when recommended by classroom teachers. Freshman ENL students are strongly encouraged to enroll in ENL Resource.

## **FAMILY AND CONSUMER SCIENCES**

**Chairperson: Amber McKinney, 317-387-4608**

**Advanced Child Development 1 (3956) Elective 10-11-12 (fall only)**

Child Development addresses the knowledge, skills, attitudes, and behaviors associated with supporting and promoting optimal growth and development of infants and children. The focus is on research-based nurturing and parenting practices and skills that support positive development of children. Topics include: consideration of the roles, responsibilities, and challenges of parenthood; human sexuality; prenatal development; preparation for birth; the birth process; meeting the physical, social, emotional, intellectual, moral and cultural growth and developmental needs of infants and children; impacts of heredity, environment, family and societal crisis on the development of the child; meeting children's needs for food, clothing, shelter, and care giving; caring for children with special needs; parental resources, services and agencies, and career awareness.

**Advanced Child Development 2 (3957) Elective 10-11-12 (spring only)**

Advanced Child Development is a sequential course that addresses more complex issues of child development and early childhood education with emphasis on guiding physical, social, emotional, intellectual, moral and cultural development throughout childhood. Topics include: positive parenting and nurturing across ages and stages; practices that promote long-term well-being of children and their families; developmentally appropriate guidance and intervention strategies with children with a variety of disadvantaging conditions; and exploration of "all aspects of the industry" for selected child-related careers.

- Prerequisite: Advanced Child Development 1

**Advanced Nutrition and Wellness 1 (3926) Elective 9-10-11-12**

Nutrition and Wellness I addresses the benefits of sound nutrition and wellness practices and empowers students to apply these principles in their everyday lives. Topics include: safe and sanitary food handling practices; organization and use of food preparation equipment; evaluation and use of recipes; meal planning; preparation and service; impact of food choices and dietary patterns on individual and family wellness; and selection of food products based on nutritional labeling. Laboratory experiences, which emphasize nutrition and wellness as well as proper food preparation technique, are an integral part of this course.

**Advanced Nutrition and Wellness 2 (3927) Elective 9-10-11-12**

Advanced Nutrition and Wellness is a sequential course that examines the relationship of sound nutrition practices to health and life span. Topics include: nutrition principles and dietary guidelines; cultural influences on food choices; meal planning for a variety of situations; food preparation and management principles; food safety issues; current consumer issues; and career opportunities in the food industry. Laboratory experiences are an integral part of this course.

- Prerequisite: Advanced Nutrition and Wellness 1

**Interpersonal Relationships (3761) Elective 9-10-11-12**

Interpersonal Relationships addresses the knowledge, skills, attitudes and behaviors all students need to practice in positive, caring, and respectful relationships in the family and with individuals at school, in the community, and in the workplace. Topics include: components of healthy relationships; roles and responsibilities in relationships; functions and expectations of various relationships; ethics in relationships; factors that impact relationships; establishing and maintaining relationships; building self-esteem and self-image through healthy relationships; communication styles; techniques for effective communication, leadership, and teamwork; individual and group goal setting and decision making; preventing and managing stress and conflict; addressing violence and abuse; and related resources, services, and agencies.

**Personal Financial Responsibility (3751) Elective 9-10-11-12**

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

**Adult Roles and Responsibilities (3990) Elective 11-12**

This class builds knowledge, skills, attitudes and behaviors students will need as they prepare to take the next steps toward adulthood in today's ever-changing society. The focus is on becoming independent, contributing, and responsible participants in family, community, and career settings. Topics include: living independently and family formation; analysis of personal standards, needs, aptitudes, and goals; integration of family community, and career responsibilities; consumer choices and decision making related to nutrition and wellness, clothing, housing, and transportation; financial management; relationship of technology and environmental issues to family and consumer resources; and community roles and responsibilities of families and individuals.

**Fashion and Textiles**

**Principles of Fashion and Textiles (3810-3820) Elective 10-12**

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.

- Required prerequisites: None
- Credits: 2 semester course, one credit per semester
- Counts as a directed Elective or Elective for all diplomas

#### **Textiles, Apparel, and Merchandising and Advanced Textiles (3830-3840) Elective 11-12**

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. 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.

- Required prerequisites: Principles of Fashion and Textiles
- Credits: 2 semester course, 2 credits per semester
- Counts as Directed Elective or Elective for all diplomas

#### **Advanced Textiles (3841-3842) Elective 12**

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. **This will include a work based component.**

- Required prerequisites: Principles of Fashion and Textiles; Textiles, Apparel, and Merchandising; Advanced Textiles
- Credits: 2 semester course, 3 credits per semester
- Counts as Directed Elective or Elective for all diplomas

### **Interior Design**

#### **Principles of Interior Design; Interior Design Fundamentals; Materials, Finishes, and Design (3980A-3981A, 3980B-3981B, 3980C-3981C) Elective 11-12**

Interior Design provides students with an overview of the field of interior (environmental) design, including an understanding of fundamental construction knowledge and skills needed in the field. Exercises include small scale space analysis and functional planning based on user needs, furniture arrangement and selection, materials and finishes considerations and presentation techniques. Students will also learn basics regarding building practices, building structures, residential construction techniques, building materials and plan reading. Includes building codes, sustainable design practices, and the preparation of site and construction plans, elevations, sections, three-dimensional drawings details and hand renderings as they relate to construction and presentation drawings.

- Required Prerequisites: none
- Credits: 2 semester course, 3 credits per semester
- Counts as directed elective or elective for all diplomas

#### **Interior Design Capstone Elective 12**

The Interior Design Capstone course is designed to provide students a chance to extend their knowledge and skills through additional course work and a work-based learning experience.

- Required Prerequisites: Principles of Interior Design; Interior Design Fundamentals; Materials, Finishes, and Design
- Credits: 2 semester course, 3 credits per semester

### **Early Childhood Education**

#### **Principles of Early Childhood Education, Curriculum, and Guidance (3953A-3954A, 3953B-3954B, 3953C-3954C) Elective 11-12**

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

- Required Prerequisites: Teacher approval
- Credits: 2 semester course, 3 credit hours per semester
- Counts as directive elective or elective for all diplomas

#### **Early Childhood Education Capstone Elective 12**

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 will be required to complete observations and field experiences with children as related to this course.**

- Required Prerequisites: Principles of Early Childhood Education; Early Childhood Curriculum; Early Childhood Guidance

- Credits: 2 semester course, 3 credits per semester

## **Education Professions**

### **Principles of Teaching, Child and Adolescent Development, Teaching and Learning (3930A-3031A, 3930B-3931B, 3930C-3931C) Elective 11-12**

This course provides a general introduction to the field of teaching. Students will explore educational careers, teaching preparation, and professional expectations as well as requirements for teacher certification. Current trends and issues in education will be examined. 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. 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. **Students will be required to complete observations and field experiences in district elementary schools.**

- Required Prerequisites: Teacher approval
- Credits: 2 semester course, 3 credit hours per semester
- Counts as directive elective or elective for all diplomas

### **Education Professions Capstone Elective 12**

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 will include a significant classroom observation and assisting experience.**

- Required Prerequisites: Principles of Teaching; Child and Adolescent Development, Teaching and Learning
- Credits: 2 semester course, 3 credit hours per semester
- Counts as directive elective or elective for all diplomas

## **Human and Social Services**

### **Principles of Human Services; Understanding Diversity; Relationships and Emotions (3932A-3933A, 3932B-3933B, 3032C-3933C) Elective 11-12**

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. 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. 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. 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.

- Required Prerequisites: Teacher Approval
- Credits: 2 semester course, 3 credit hours per semester
- Counts as directive elective or elective for all diplomas

### **Human Services Capstone Elective 12**

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. **This course requires observations and work based components.**

- Required Prerequisites: Relationships & Emotions; Understanding Diversity
- Credits: 2 semester course, 3 credit hours per semester
- Counts as directive elective or elective for all diplomas

## MATHEMATICS

**Chairpersons:** Eric Beebe, 317-347-8660  
Kathy Mitchell, 317-387-2755

**Please note the following:**

- Graphing calculator use will be encouraged in all math courses.

**Mathematical Lab/Algebra Enrichment: Algebra 1** (2023-2024) Grade 9-10-11-12

Mathematical Lab provides the mathematical support skills and thinking processes necessary to aid in the successful completion of Algebra I. Topics include (1) whole numbers, (2) integers, (3) rationals, (4) decimals and their applications, (5) number theory, (6) ratios, (7) proportions, (8) percentages, (9) equations, (10) graphing, (11) square roots, (12) appropriate geometric concepts. The instructional program of this course provides for the understanding and use of the concepts as well as their application through appropriate problem-solving situations.

- A two-semester, two-credit course for elective credit
- Does not count for math credit
- This is not a student-selected course.

**Algebra I** (4610-4620) Grade 9

Algebra I formalizes and extends the mathematics students learned in the middle grades. Five critical areas comprise the course: Relations and Functions; Linear Equations and Inequalities; Quadratic and Nonlinear Equations; Systems of Equations and Inequalities; and Polynomial Expressions. The Mathematical Practice Standards apply throughout the course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Successful completion of this course is required for graduation. A Core 40 and AHD course with competencies defined

- A two-semester, two-credit course

**Algebra I** (4621-4622) Grade 10-11-12

Algebra I formalizes and extends the mathematics students learned in the middle grades. Five critical areas comprise the course: Relations and Functions; Linear Equations and Inequalities; Quadratic and Nonlinear Equations; Systems of Equations and Inequalities; and Polynomial Expressions. The Mathematical Practice Standards apply throughout the course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Successful completion of this course is required for graduation.

- A Core 40 and AHD course with competencies defined
- A one or two-semester, one or two-credit course

**Algebra II** (4630-4640) Grade 10-11-12

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 with expressions that define functions continuing to expand and improve their abilities to model situations and to solve equations, including quadratic equations solved over the set of complex numbers and exponential functions using the properties of logarithms. The Mathematical Practice Standards apply throughout this course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Prerequisite: Algebra I
- A Core 40 and AHD course with competencies defined
- A two-semester, two-credit course

**Algebra II Honors** (4643-4644) Grade 9-10-11-12

Algebra II Honors is a course which 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 with expressions that define functions continuing to expand and improve their abilities to model situations and to solve equations, including quadratic equations solved over the set of complex numbers and exponential functions using the properties of logarithms. The Mathematical Practice Standards apply throughout this course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Algebra II Honors will cover and assess the above topics in more depth.

- Prerequisite: Algebra I with a minimum grade of B- in both semesters and Geometry Honors with a minimum grade of C in both semesters
- A Core 40 and AHD course with competencies defined
- A Pre-IB, two-semester, two-credit course awarding honors-level weighted grade

**Geometry** (4670-4680) Grade 9-10-11-12

Geometry formalizes and extends students' geometric experiences from the middle grades. Students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. The course is comprised of six critical areas: Congruence and Similarity; Measurement; Analytic Geometry; Circles; and Polyhedra. The Mathematical Practice Standards apply throughout this course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Prerequisite: Algebra I and Algebra II
- A Core 40 and AHD course with competencies defined
- A two-semester, two-credit course

**Geometry Honors (4688-4689) Grade 9-10-11-12**

Geometry Honors formalizes and extends students' geometric experiences from the middle grades. Students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. The course is comprised of six critical areas: Congruence and Similarity; Measurement; Analytic Geometry; Circles; and Polyhedra. The Mathematical Practice Standards apply throughout this course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

Geometry Honors will cover and assess the above topics in more depth

- Prerequisite: Algebra I with a minimum grade of B- in both semesters
- A Core 40 and AHD course with competencies defined
- A Pre-IB, two-semester, two-credit course awarding honors-level weighted grade

**Integrated Math I (4604-4605) Grade 9-10-11-12**

Integrated Mathematics I formalizes and extends the mathematics students learned in the middle grades. The critical areas deepen and extend understanding of linear relationships, in part by contrasting them with exponential phenomena, and in part by applying linear models to data that exhibit a linear trend. Integrated Mathematics I uses properties and theorems involving congruent figures to deepen and extend understanding of geometric knowledge from prior grades. The final unit in the course ties together the algebraic and geometric ideas studied. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester 234 Indiana Department of Education High School Course Titles and Descriptions
- Counts as a Mathematics course for all diplomas
- Fulfills the Algebra I/Integrated Mathematics I requirement for all diplomas

**Integrated Math II (4606-4607) Grade 9-10-11-12**

Integrated Mathematics II focuses on quadratic expressions, equations, and functions by comparing their characteristics and behavior to those of linear and exponential relationships from Integrated Mathematics I. The need for extending the set of rational numbers arises and real and complex numbers are introduced so that all quadratic equations can be solved. The link between probability and data is explored through conditional probability and counting methods, including their use in making and evaluating decisions. The study of similarity leads to an understanding of right triangle trigonometry and connects to quadratics through Pythagorean relationships. Circles, with their quadratic algebraic representations, rounds out the course. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Prerequisites: Integrated Mathematics I
- Credits: 2 semester course, 1 credit per semester
- Counts as a Mathematics course 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

**Integrated Math III (4608-4609) Grade 9-10-11-12**

Integrated Mathematics III provides students the opportunity to pull together and apply the accumulation of learning that they have from their previous courses. They apply methods from probability and statistics to draw inferences and conclusions from data. Students expand their repertoire of functions to include polynomial, rational, and radical functions. They expand their study of right triangle trigonometry to include general triangles. Finally, students bring together all of their experiences with functions and geometry to create models and solve contextual problems. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Prerequisites: Integrated Mathematics II
- Credits: 2 semester course, 1 credit per semester
- Counts as a Mathematics course for all diplomas
- Fulfills the Algebra II/Integrated Mathematics III requirement for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

**Quantitative Reasoning (4690-4691) Grade 11-12**

Quantitative Reasoning is a mathematics course focused on the study of numeracy, ratio and proportional reasoning, modeling, probabilistic reasoning to assess risk, and statistics. The Process Standards for Mathematics are applied throughout and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject. 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, will be used frequently.

- Prerequisite: Algebra II
- A Core 40 and AHD course
- A two-semester, two-credit course

**\*AP Statistics AP/PHS Pre-IB (4761-4762) Grade 10-11-12**

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

- Prerequisite: Algebra I, Algebra II, and Geometry, with a minimum grade of C both semesters of Algebra II
- A Core 40, AHD, and IB course with competencies defined
- A two-semester, two-credit course awarding an AP-level weighted grade

**Pre-Calculus/Trigonometry (4810-4820) Grade 11-12**

Pre-Calculus/Trigonometry is a two-credit course that combines the material from *Trigonometry* and *Pre-Calculus* into one course. The foundations of algebra and functions developed in previous courses will be extended to new functions, including exponential and logarithmic functions, and to higher-level sequences and series. The course provides students with the skills and understandings that are necessary for advanced manipulation of angles and measurement. Students will also advance their understanding of *imaginary* numbers through an investigation of complex numbers and polar coordinates. 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. Recommended Prerequisite: Algebra I, Algebra II, and Geometry, with a minimum grade of C both semesters of Algebra II

- Counts as a Mathematics Course for the General, Core 40, and AHD diplomas. A two-semester, two-credit course

#### **Pre-Calculus Honors (4799-4800) Grade 10-11-12 DC**

Pre-Calculus Honors/DC blends together all of the concepts and skills that must be mastered prior to enrollment in a college-level calculus course. A functional approach provides for the integration of all of the concepts listed for the course in trigonometry plus: (1) the relationship of equations and graphs of linear, quadratic, and parametric equations; (2) translation of axes; and (3) locus and vectors. The course includes the theory of equations, exponential and logarithmic functions, matrices, and determinants. This class will cover and assess the above topics in more depth and will allow time for additional topics and enrichment.

- Prerequisite: Algebra I, Algebra II, and Geometry with a minimum grade of B- both semesters of Algebra II
- An AHD course with competencies defined
- A two-semester, two-credit course awarding an honors-level weighted grade

#### **Mathematics Standard Level, Analysis and Approaches /IB (4901-4902) Grade 11, 12**

This course recognizes the need for analytical expertise in a world where innovation is increasingly dependent on a deep understanding of mathematics. This course includes topics that are both traditionally part of a pre-university mathematics course (for example, functions, trigonometry, calculus) as well as topics that are amenable to investigation, conjecture and proof, for instance the study of sequences and series. The course allows the use of technology, as fluency in relevant mathematical software and hand-held technology is important regardless of choice of course. However, Mathematics: analysis and approaches has a strong emphasis on the ability to construct, communicate and justify correct mathematical arguments. Students should be comfortable in the manipulation of algebraic expressions, enjoy the recognition of patterns, and understand the mathematical generalization of these patterns. This course prepares a student to take the Mathematics Standard Level IB Exam.

- Prerequisite: Algebra I, Geometry Honors, Algebra II Honors
- A Core 40, AHD, and IB diploma course with competencies defined
- A two-semester, two-credit course awarding an AP-level weighted grade

#### **Mathematics Higher Level /IB (4903-4904) Grade 12**

Mathematics Higher Level /IB is the second year of a two-year IB program which includes seven core topics: algebra, functions and equations, circular functions and trigonometry, matrices, vectors, statistics and probability, and calculus. This second year course prepares a student to take the Mathematics Higher Level IB Exam.

- Prerequisite: Algebra I, Geometry Honors, Algebra II Honors, Mathematics Standard Level /IB
- A Core 40, AHD, and IB diploma course with competencies defined
- A two-semester, two-credit course awarding an AP-level weighted grade

#### **\*AP Calculus AB (4911-4921) Grade 11-12**

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 Prerequisite: Pre-Calculus/ Trigonometry
- Credits: 2 semester course, 1 credit per semester, awarding an AP-level weighted grade
- Counts as a Mathematics Course for all diplomas

#### **CCR Math Ready (4690-4691) Grade 12**

CCR Bridge: Math Ready will include and reinforce the Algebra 1, Geometry, Algebra 2 and Statistics skills necessary to be ready for an entry-level college math course. This course emphasizes understanding of math concepts rather than just memorizing procedures. Math Ready students learn the context behind the procedure: why to use a certain formula or method to solve a problem, for example. This equips them with higher-order thinking skills in order to apply math skills, functions and concepts in different situations. The course is intended for students who currently have achieved the minimum math requirements for college entry. The content of this course is designed to enhance students' math skills so that they are ready for college-level math assignments. It is not designed to prepare students for college-level math in STEM majors.

- Recommended Prerequisites: In grade 11, students who have not passed the Grade 10 Math ISTEP+ and have scored below a 45 on the PSAT test OR students who score below proficient on a diagnostic test should be placed in the Math Ready course
- Credits: 2 semester course, 1 credit per semester
- Counts as a Mathematics Course for all diplomas

#### **\*AP Calculus BC (4945-4946) Grade 11-12**

Calculus BC is an advanced placement course which provides students with the content that has been established by the College Board. Generally, topics include: limits, continuity, derivatives, definite integrals, techniques of integration involving rational, trigonometric, logarithmic, and exponential functions. This course also includes applications of the derivative, the integral, and theory of calculus. The use of graphing technology is required. A student is required to take the AP calculus exam (BC level) and may also take this course for four hours of college credit through Indiana University's Advanced College Project, the calculus course titled M211.

- Prerequisite: AP Calculus AB
- A Core 40 and AHD course with competencies defined
- A two-semester, two-credit course awarding an AP-level weighted grade

**\*Note: Advanced Placement or Dual Credit** are titles covering any of these courses: (1) a course which follows College Board Entrance Examination guidelines for advanced placement mathematics, (2) any advanced mathematics course offered for credit by an accredited postsecondary institution through an adjunct agreement with a secondary school or (3) any other post-secondary mathematics course offered for dual credit under the provisions of CHE or IDOE.

## **NAVAL SCIENCE (NJROTC)**

**Chairperson: LCDR William James      317-387-2693**

The Naval Science curriculum is intended to develop informed citizens, to strengthen character, to promote an understanding of the military responsibilities of citizens in a democratic society, and to develop an appreciation of the U.S. Navy and the role of sea power in the national defense. The Naval Science program can provide a big assist for students seeking nomination to the Naval Academy and other academies or trying to qualify for an ROTC college scholarship from any of the Armed Forces. It can also be of considerable benefit to any person enlisting in the Armed Forces after graduation. Naval Science courses are full-credit elective courses. They are open to all students who meet the medical standards required to participate in the school physical education program. Enrollment in the first –year course does not obligate the student to continue in the curriculum nor does the student have any obligation to the Navy. NJROTC cadets are provided with uniforms, books, training aids, and other types of equipment paid for by the Navy. Cadets may take part in training cruises aboard naval ships on a voluntary basis. Other field trips are used to enhance their studies. Participation in drill teams, marksmanship teams, and extracurricular activities are encouraged but not required. Uniforms are required to be worn once a week.

### **Naval Science 1-2 (5510-5520) Elective 9-10-11-12**

This first year of Naval Science provides an introduction to the organization and history of the Navy and to the study of the influence of sea power on world events. The responsibilities and opportunities of leadership are stressed. Navigation fundamentals are studied and basic seamanship skills are developed. Oceanography (the science of the ocean) is studied. Principles of first aid and health education are introduced. Each class day will provide military drill and physical fitness training.

### **Naval Science 3-4 (5530-5540) Elective 10-11-12**

Subject matter introduced in Naval Science 1-2 is explored in greater detail with increased emphasis on navigation fundamentals and the use of the sea. Naval history of the early 19<sup>th</sup> Century is studied in some depth. Ship construction and damage control along with naval weapons are introduced. Effective leadership techniques will be discussed and all cadets are expected to apply what they have learned. Military drill and physical fitness sessions will continue.

### **Naval Science 5-6 (5550-5560) Elective 11-12**

Naval history from World War II to present will be reviewed. Other courses include military justice, astronomy, meteorology, and international law. Leadership and seamanship subjects are continued. Navigation sessions are increased with a study of dead reckoning, piloting and electronic navigation.

### **Naval Science 7-8 (5570-5580) Elective 12**

This course will vary from year to year depending on the number of Naval Science 7-8 Cadets, their class schedule, and their capabilities. It is designed to enhance the Cadets leadership skills and prepare the Cadet for the transition to future leadership roles as a citizen. The Cadet will be expected to improve communication skills, assume positions of increased leadership and increased responsibilities, through practical classroom instruction and community experience. The primary emphasis during this year will be on leadership. Organizational techniques and military chain of command will be discussed. A continuation of military justice and international law along with military drill and physical fitness is emphasized.

## **PERFORMING ARTS DEPARTMENT**

**Chairperson: Andrew Stainbrook, 317-387-2784  
Aaron Burkhart, 317-387-2759**

**Applied Music (Percussion Class) (5000-5001) Elective 9-10-11-12** Percussion Class is a two semester course for select percussion students. An applied music course offers high school students the opportunity to receive small group instruction designed to develop performance skills. Instruction is designed so that students are enabled to connect, examine, imagine, define, try, extend, refine, and integrate music study into other subject areas including full concert band. This class will teach, review, and rehearse the 40 percussive rudiments and includes extensive work with timpani, mallets, bass drum, cymbal, and other significant percussion instruments. An introduction to the many other percussive effects found within instrumental music will be utilized to refine students' abilities in listening, analyzing, interpreting, and performing. Students enrolled in the first semester of class are required to be a part of the competitive marching band program and are highly encouraged to be a part of the winter competitive percussion program. For second semester, students will be selected for this class based upon their preparedness to refine more advanced percussion skills. Students will be expected to maintain a minimum 2.0 current term GPA.

- Prerequisite: Director placement/audition
- A Core 40 and AHD course.
- This course may be taken during successive semesters that it is offered.
- A one credit course per semester
- Students are eligible to apply for a PE waiver based on pre-determined expectations set by the directors.

### **Beginning Concert Band (Crimson Band) (5005-5006) Elective 9**

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. Instruction is designed to enable students to connect, examine, define, try, extend, refine, and integrate music study into other subject areas. Ensemble and solo activities are designed to develop elements of musicianship including, but not limited to: 1) tone production, 2) technical skills, 3) intonation, 4) music reading skills, 5) listening skills, 6) analyzing music, and 7) studying historically significant styles of music. Experiences include, but are not limited to, improvising, conducting, playing by ear, and sight-reading. Students are given opportunities to develop the ability to understand the composer's intent in order to connect the performer to the audience. Students also have the opportunity to experience live performances by professionals during and outside of the school day. Time outside of the school day may be scheduled for dress rehearsals and performances. A limited number of public performances may serve as culmination of daily rehearsal and musical goals. Students are required to participate in fall, winter and spring concerts, and the ISSMA Concert Organization Contest. This is a beginning high school-level class, not a place to begin playing an instrument.

- This course may be taken for successive semesters
- A one credit course per semester
- A Core 40 and AHD course

**Intermediate Concert Band (Concert Band) (5010) Elective 9-10-11-12 Semester 1 only**

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. Instruction is designed to enable students to connect, examine, define, try, extend, refine, and integrate music study into other subject areas. Ensemble and solo activities are designed to develop elements of musicianship including, but not limited to: 1) tone production, 2) technical skills, 3) intonation, 4) music reading skills, 5) listening skills, 6) analyzing music, and 7) studying historically significant styles of music. Experiences include, but are not limited to, improvising, conducting, playing by ear, and sight-reading. Students are given opportunities to develop the ability to understand the composer's intent in order to connect the performer to the audience. Students also have the opportunity to experience live performances by professionals during and outside of the school day. Time outside of the school day may be scheduled for dress rehearsals and performances. A limited number of public performances may serve as culmination of daily rehearsal and musical goals. Students are required to participate in fall, winter and spring concerts, and the ISSMA Concert Organization Contest. This band is for upperclassmen who have elected not to participate in competition band. Second semester placement is based upon audition for upper classmen and director placement for freshmen. In addition, students perform, with expression and technical accuracy, a large and varied repertoire of concert literature that is developmentally appropriate. Evaluation of music and music performances is included.

- Prerequisite: Director placement/audition
- A Core 40 and AHD course
- This course may be taken for successive semesters
- A one credit course per semester

**Intermediate Concert Band (Concert Band) (5025) Elective 9-10-11-12 Semester 2 only**

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. Instruction is designed to enable students to connect, examine, define, try, extend, refine, and integrate music study into other subject areas. Ensemble and solo activities are designed to develop elements of musicianship including, but not limited to: 1) tone production, 2) technical skills, 3) intonation, 4) music reading skills, 5) listening skills, 6) analyzing music, and 7) studying historically significant styles of music. Experiences include, but are not limited to, improvising, conducting, playing by ear, and sight-reading. Students are given opportunities to develop the ability to understand the composer's intent in order to connect the performer to the audience. Students also have the opportunity to experience live performances by professionals during and outside of the school day. Time outside of the school day may be scheduled for dress rehearsals and performances. A limited number of public performances may serve as culmination of daily rehearsal and musical goals. This is a second semester band only, consisting of competition band students placed by director recommendation or audition. Students are required to participate in winter and spring concerts, and the ISSMA Concert Organization Contest. In addition, students perform, with expression and technical accuracy, a large and varied repertoire of concert literature that is developmentally appropriate. Evaluation of music and music performances is included.

- Prerequisite: Director placement/audition
- A Core 40 and AHD course
- This course may be taken for successive semesters
- A one credit course

**Advanced Concert Band (Symphonic Band) (5030-5040) Elective 9-10-11-12** Symphonic Band provides students with a balanced comprehensive study of music through the concert band, which develops skills in the psychomotor, cognitive, and affective domains. Instruction is designed to enable students to connect, examine, define, try, extend, refine, and integrate music study into other subject areas. Ensemble and solo activities are designed to develop elements of musicianship including, but not limited to: 1) tone production, 2) technical skills, 3) intonation, 4) music reading skills, 5) listening skills, 6) analyzing music, and 7) studying historically significant styles of music. Experiences include, but are not limited to, improvising, conducting, playing by ear, and sight-reading. Students are given opportunities to develop the ability to understand the composer's intent in order to connect the performer to the audience. Students also have the opportunity to experience live performances by professionals during and outside of the school day. Time outside of the school day may be scheduled for dress rehearsals and performances. A limited number of public performances may serve as culmination of daily rehearsal and musical goals. Students may be required to participate in winter and spring concerts, community events, and the ISSMA Concert Organization Contest.. Membership is by director recommendation or audition. Band repertoire will be of the highest caliber. Mastery of advanced wind band technique must be evident. Areas of refinement consist of techniques including, but not limited to: 1) intonation, 2) balance and blend, 3) breathing, 4) tone production, 5) tone quality, 6) technique, 7) rhythm, 8) sight-reading, and 9) critical listening skills. Evaluation of music and music performance is included. Students will be expected to maintain a minimum 2.0 current term GPA.

- Prerequisites: Director placement/audition
- This course may be taken for successive semesters
- A one credit course per semester
- A Core 40 and AHD course

**Advanced Concert Band (Wind Ensemble) (5050-5060) Elective 10-11-12**

Wind Ensemble provides students with a balanced comprehensive study of music through the concert band, which develops skills in the psychomotor, cognitive, and affective domains. Instruction is designed to enable students to connect, examine, define, try, extend, refine, and integrate music study into other subject areas. Ensemble and solo activities are designed to develop elements of musicianship including, but not limited to: 1) tone production, 2) technical skills, 3) intonation, 4) music reading skills, 5) listening skills, 6) analyzing music, and 7) studying historically significant styles of music. Experiences include, but are not limited to, improvising, conducting, playing by ear, and sight-reading. Students are given opportunities to develop the ability to understand the composer's intent in order to connect the performer to the audience. Students also have the opportunity to experience live performances by professionals during and outside of the school day. Time outside of the school day may be scheduled for dress rehearsals and performances. A limited number of public performances may serve as culmination of daily rehearsal and musical goals. Students are required to participate in fall, winter and spring concerts, and the ISSMA Concert Organization Contest. Band repertoire will be of the highest caliber. Mastery of advanced wind band technique must be evident. Areas of refinement consist of techniques including, but not limited to: 1) intonation, 2) balance and blend, 3) breathing, 4) tone production, 5) tone quality, 6) technique, 7) rhythm, 8) sight-reading, and 9) critical listening skills. Evaluation of music and music performance is included. Wind Ensemble is the principal performing band and is open to sophomores, juniors and seniors by auditions only. (In limited cases freshmen may be admitted based on the instrumentation needs of the group). Performance in several concerts, contests and other activities such as "Spectacular" is a requirement of this class. Participation in Solo and Ensemble Contests is also required, and private lessons are strongly recommended. Students will be expected to maintain a minimum 2.0 current term GPA.

- Prerequisites: By audition
- This course may be taken for successive semesters
- A one credit course per semester
- A Core 40 and AHD course



**Jazz Ensemble (Jazz Band 1) (5110-5120) Elective 10-11-12**

Students taking Jazz Band develop musicianship and specific performance skills through group and individual settings for the student and performance of the varied styles of instrumental jazz. The instruction includes the study of the history, formative, and stylistic elements of jazz. Students develop their creative skills through: 1) improvisation, 2) composition, 3) arranging, 4) performing, 5) listening, and 6) analyzing. Instruction is designed so that students are enabled to connect, examine, imagine, define, try, extend, refine, and integrate music study into other subject areas. Students are provided with opportunities to experience live performances by professionals during, and outside of, the school day. Time outside of the school day will be scheduled for rehearsals and performances. In addition, a number of public performances may serve as a culmination of daily rehearsal and music 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 and or orchestra class offering, at the discretion of the director.

- Prerequisite: By audition
- A core 40 and AHD course
- This course is designed to be a full-year course and may be taken for successive semesters
- A one credit course per semester

**Dance Performance (Dancers) (5150-5160) Elective 9-10-11-12** This course is a requirement for all members of the Pike Dance team. Membership is by audition only (held the in the spring) for students entering grades 9 - 12. The dancers perform at home football games, selected basketball games and community/special events. The class will emphasize the students' understanding of dance from an artistic standpoint. Upon completion of the class, each student will have an understanding of different technical skills and capabilities of a variety of genres including but not limited to ballet, jazz, hip hop and lyrical. The student will also develop listening, comprehension and memorization skills, as well as the ability to communicate with the appropriate terminology as related to the activity. All members are required to have proper dance attire for class and rehearsals. There will be a costume and event fee associated with this class. Students will be expected to maintain a minimum 2.0 current term GPA.

- By audition only
- A Core 40 and AHD course
- This course is designed to be a full-year course and may be taken for successive semesters
- A one credit course per semester
- Students are eligible to apply for a P.E. Waiver

**Dance Performance (Guard) (5170-5180) Elective 9-10-11-12**

This course is a requirement for all members of the Pike Color Guard. Membership is by audition only. Auditions are held the previous Spring and are open to student entering grades 9-12. The guard will perform with the competitive marching band for both Summer and Fall. After the Fall competition season is over, auditions will be held for the Pike Winter Guard. The Winter Guard competes regularly in the Indiana High School Color Guard Association and on the national level in Winter Guard International contests. Only those guard members who have auditioned and made the winter guard may take the course second semester. After the winter guard's competitive season, the guard performs at the Band Spectacular Concert. All members are required to have proper dance attire for class and rehearsals. There is an equipment and costume fee associated with this class. Improving coordination and grace is a major objective of this class. Sequential and systematic learning experiences will be provided in the areas of Ballet, Modern, Jazz, or Ethnic-Folk. Students will develop performance skills which will allow them to truly be expressive in their movements. Students will be expected to maintain a minimum 2.0 GPA in alignment with the Pike Plus Academic Monitoring Program.

- Prerequisite: Director placement/audition
- A Core 40 and AHD course
- This course is designed to be a full-year course and may be taken for successive semesters
- A one credit course per semester
- Students are eligible for a P.E. Waiver each semester

**Beginning Orchestra (Freshman Viola/Cello/Bass) – Level 1 (5185-5186) Elective 9**

This Freshman Level course is designed for viola, cello and bass students only. Students in this ensemble are provided with a balanced comprehensive study of beginning to intermediate string and full orchestra literature, which develops skills in the psychomotor, cognitive and affective domains. Ensemble and solo activities are designed to develop and refine elements of musicianship (tone production, bow control, bow usage, basic string pedagogy, intonation, music reading skills, listening skills, music analysis, the study of historically significant styles of orchestral literature and the integration of other disciplines, posture, proper instrument position, rehearsal routines and concert etiquette). Experiences will include improvisation, conducting, playing by ear and sight-reading. Students will develop the ability to understand and convey the composer's intent in performance. Students are required to participate in rehearsals, concerts and contests outside of the school day that support and extend learning in the classroom and dress in appropriate concert attire (black gowns and tuxedos). This course is intended for students with prior playing experience. Students should meet at least one of the following prerequisites: 1) Student is in good standing with their middle school orchestra as recommended by their director. 2) Student is taking private lessons as confirmed by their instructor. 3) Student performs an audition for the high school director.

- A Core 40 and AHD course
- This course is designed to be a full-year course and may be taken for successive semesters
- A one credit course per semester

**Beginning Orchestra (Freshman Violin) – Level 1 (5187-5188) Elective 9**

This Freshman Level course is designed for violin students only. Students in this ensemble are provided with a balanced comprehensive study of beginning to intermediate string and full orchestra literature, which develops skills in the psychomotor, cognitive and affective domains. Ensemble and solo activities are designed to develop and refine elements of musicianship (tone production, bow control, bow usage, basic string pedagogy, intonation, music reading skills, listening skills, music analysis, the study of historically significant styles of orchestral literature and the integration of other disciplines, posture, proper instrument position, rehearsal routines and concert etiquette). Experiences will include improvisation, conducting, playing by ear and sight-reading. Students will develop the ability to understand and convey the composer's intent in performance. Students are required to participate in rehearsals, concerts and contests outside of the school day that support and extend learning in the classroom and dress in appropriate concert attire (black gowns and tuxedos). This course is intended for students with prior playing experience. Students should meet at least one of the following prerequisites: 1) Student is in good standing with their middle school orchestra as recommended by their director. 2) Student is taking private lessons as confirmed by their instructor. 3) Student performs an audition for the high school director.

- A Core 40 and AHD course
- This course is designed to be a full-year course and may be taken for successive semesters
- A one credit course per semester

**Intermediate Orchestra (Crimson Viola/Cello/Bass) – Level 2 (5205-5206) Elective 10-11-12**

This Intermediate Level course is designed for viola, cello and bass students only. Students in this ensemble are provided with a balanced comprehensive study of intermediate to advanced string and full orchestra literature, which develops skills in the psychomotor, cognitive and affective domains. Ensemble and solo activities are designed to develop and refine elements of musicianship (tone production, bow control, bow usage, basic string pedagogy, intonation, music reading skills, listening skills, music analysis, the study of historically significant styles of orchestral literature and the integration of other disciplines, posture, proper instrument position, rehearsal routines and concert etiquette). Experiences will include improvisation, conducting, playing by ear and sight-reading. Students will develop the ability to understand and convey the composer's intent in performance. Students are required to participate in rehearsals, concerts and contests outside of the school day that support and extend learning in the classroom and dress in appropriate concert attire (black gowns and tuxedos). This course is intended for students with prior playing experience.

- Director placement by recommendation or audition
- A Core 40 and AHD course
- This course is designed to be a full-year course and may be taken for successive semesters
- A one credit course per semester

**Intermediate Orchestra (Crimson Violin) – Level 2 (5207-5208) Elective 10-11-12**

This Intermediate Level course is designed for violin students only. Students in this ensemble are provided with a balanced comprehensive study of intermediate to advanced string and full orchestra literature, which develops skills in the psychomotor, cognitive and affective domains. Ensemble and solo activities are designed to develop and refine elements of musicianship (tone production, bow control, bow usage, basic string pedagogy, intonation, music reading skills, listening skills, music analysis, the study of historically significant styles of orchestral literature and the integration of other disciplines, posture, proper instrument position, rehearsal routines and concert etiquette). Experiences will include improvisation, conducting, playing by ear, and sight-reading. Students will develop the ability to understand and convey the composer's intent in performance. Students are required to participate in rehearsals, concerts and contests outside of the school day that support and extend learning in the classroom and dress in appropriate concert attire (black gowns and tuxedos). This course is intended for students with prior playing experience.

- Director placement by recommendation or audition
- A Core 40 and AHD course
- This course is designed to be a full-year course and may be taken for successive semesters
- A one credit course per semester

**Advanced Orchestra (Symphony Violin 2) – Level 3 (5210-5220) Elective 9-10-11-12**

This Advanced Level course is designed for Symphony 2<sup>nd</sup> violin section students only. Students in this ensemble are provided with a balanced comprehensive study of advanced string and full orchestra literature, which develops skills in the psychomotor, cognitive and affective domains. Ensemble and solo activities are designed to develop and refine elements of musicianship (tone production, bow control, bow usage, basic string pedagogy, intonation, music reading skills, listening skills, music analysis, the study of historically significant styles of orchestral literature and the integration of other disciplines, posture, proper instrument position, rehearsal routines and concert etiquette). Experiences will include improvisation, conducting, playing by ear and sight-reading. Students will develop the ability to understand and convey the composer's intent in performance. Students are required to participate in rehearsals, concerts and contests outside of the school day that support and extend learning in the classroom and dress in appropriate concert attire (black gowns and tuxedos). This course is intended for students with prior playing experience. All students are expected to maintain a minimum 2.0 current term GPA.

- Director placement by recommendation or audition
- A Core 40 and AHD course
- This course is designed to be a full-year course and may be taken for successive semesters
- A one credit course per semester

**Advanced Orchestra (Symphony) – Level 3 (5221-5222) Elective 9-10-11-12**

This Advanced Level course is designed for students who have auditioned for placement into the Pike Symphony. Students in this ensemble are provided with a balanced comprehensive study of advanced string and full orchestra literature, which develops skills in the psychomotor, cognitive and affective domains. Ensemble and solo activities are designed to develop and refine elements of musicianship (tone production, bow control, bow usage, basic string pedagogy, intonation, music reading skills, listening skills, music analysis, the study of historically significant styles of orchestral literature and the integration of other disciplines, posture, proper instrument position, rehearsal routines and concert etiquette). Experiences will include improvisation, conducting, playing by ear and sight-reading. Students will develop the ability to understand and convey the composer's intent in performance. Students are required to participate in rehearsals, concerts and contests outside of the school day that support and extend learning in the classroom and dress in appropriate concert attire (black gowns and tuxedos). This course is intended for students with prior playing experience. All students are expected to maintain a minimum 2.0 current term GPA.

- Director placement by recommendation or audition
- A Core 40 and AHD course
- This course is designed to be a full-year course and may be taken for successive semesters
- A one credit course per semester

**AP Music Theory and Composition (5261-5262) Elective 10-11-12**

Music Theory is a detailed study of the fundamentals of music. It is recommended only for serious students of music who have a good background in either piano or one of the performing organizations. This two-semester course will cover ear training and dictation skills, harmonic structure and analysis, composition, forms and styles, conducting, and acoustics.

- Prerequisite: Teacher approval
- A Core 40 and AHD course
- A one credit course per semester
- This course is intended to be taken for 2 consecutive semesters
- An AP course awarding a AP-level weighted grade

**IB Music SL (5263-5264) Elective 11-12**

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.

- Instructor permission required

**Piano and Electronic Keyboard (5280) Elective 10-11-12 Offered both semesters**

High school students taking this course are offered Keyboard classes, including piano and electronic keyboard, in order to develop music proficiency and musicianship. Instruction is designed so that students are enabled to connect, examine, imagine, define, try, extend, refine, and integrate music study into other subject areas. Students: 1) perform with proper posture, hand position, fingering, rhythm, and articulation; 2) compose and improvise melodic and harmonic material; 3) create and perform simple accompaniments; 4) listen to, analyze, sight-read, and study the literature performed; 5) study the elements of music as exemplified in a variety of styles; and 6) make interpretive decisions. This course includes work with scales, chords, and other harmonic relationships. Numerous compositions geared toward the individuals' ability level will be utilized with a focus on practical experience.

- A Core 40 and AHD course
- A one credit course

**Beginning Chorus (1PM) (5321-5322) Elective 9-10-11-12**

Beginning Chorus (1PM) is open to Tenor/Bass Voice students in grades 9, 10, 11 and 12. There is no audition required for admission into this class. 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 will be scheduled for rehearsals and performances, including public performances which serve as a culmination of daily rehearsal and musical goals. Students are required to participate in rehearsals and performance opportunities outside of the school day that support and extend learning in the classroom. There is a participation/costume fee associated with this class.

- A Core 40 and AHD course
- This course may be a full-year course and may be taken for successive semesters
- A one credit course per semester

**Beginning Chorus (Treble Choir) (5323-5324) Elective 9**

Beginning Chorus (Treble Choir) is open to Treble Voice students in grade 9. There is no audition required for admission into this class. 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 will be scheduled for rehearsals and performances, including public performances which serve as a culmination of daily rehearsal and musical goals. Students are required to participate in rehearsals and performance opportunities outside of the school day that support and extend learning in the classroom. There is a participation/costume fee associated with this class.

- A Core 40 and AHD course
- This course may be a full-year course and may be taken for successive semesters
- A one credit course per semester

**Beginning Chorus (Chorale) (5330-5340) Elective 10-11-12**

Beginning Chorus (Chorale) is open to Treble Voice students in grade 10, 11 and 12. There is no audition required for admission into this class. 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 will be scheduled for rehearsals and performances, including public performances which serve as a culmination of daily rehearsal and musical goals. Students are required to participate in rehearsals and performance opportunities outside of the school day that support and extend learning in the classroom. There is a participation/costume fee associated with this class.

- A Core 40 and AHD course
- This course may be a full-year course and may be taken for successive semesters
- A one credit course per semester

**Intermediate Chorus (Chamber Singers) (5345-5346) Elective 10-11-12**

Intermediate Chorus (Chamber Singers) is open to students in grades 10, 11 and 12 who have auditioned for placement in this ensemble. 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 will be scheduled for rehearsals and performances, including public performances which serve as a culmination of daily rehearsal and musical goals. Students are required to participate in rehearsals and performance opportunities outside of the school day that support and extend learning in the classroom. There is a participation/costume fee associated with this class.

- Recommended Prerequisite: Beginning Chorus
- A Core 40 and AHD course
- This course may be a full-year course and may be taken for successive semesters
- A one credit course per semester

**Advanced Chorus (Menz Choir) (5350-5360) Elective 9-10-11-12**

Advanced Chorus (Menz Choir) is open to Tenor/Bass Voice students in grades 9, 10, 11 and 12 who have auditioned for placement in this ensemble. 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. Areas of refinement include a cappella singing, sight-reading and critical listening skills. 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 will be scheduled for rehearsals and performances, including public performances which serve as a culmination of daily rehearsal and musical goals. Students are required to participate in rehearsals and performance opportunities outside of the school day that support and extend learning in the classroom. Students are expected to maintain a minimum current term 2.0 GPA. There is a participation/costume fee associated with this class.

- Required Prerequisite: Audition with the director for placement
- Recommended Prerequisite: Beginning and Intermediate Chorus

- A Core 40 and AHD course
- This course may be a full-year course and may be taken for successive semesters
- A one credit course per semester

#### **Advanced Chorus (Mystiques) (5370-5380) Elective 9-10-11-12**

Advanced Chorus (Mystiques) is open to Treble Voice students in grades 9, 10, 11 and 12 who have auditioned for placement in this ensemble. 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. Areas of refinement include a cappella singing, sight-reading, critical listening skills and choreography. Students learn proper dance technique and are expected to rehearse and perform choreography at a competitive level. 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. Weekly time outside of the school day will be scheduled for rehearsals and performances, including public performances which serve as a culmination of daily rehearsal and musical goals. Students are required to participate in rehearsals and performance opportunities outside of the school day that support and extend learning in the classroom. Students are required to participate in numerous full-day Saturday events. Students are expected to maintain a minimum current term 2.0 GPA. There is a participation/costume fee associated with this class.

- Required Prerequisite: Audition with the director for placement
- Recommended Prerequisite: Beginning and Intermediate Chorus
- A Core 40 and AHD course
- This course is a full-year course and may be taken for successive semesters
- A one credit course per semester
- Students are eligible for a P.E. Waiver

#### **Advanced Chorus (Concert Choir) (5390-5400) Elective 9-10-11-12**

Advanced Chorus (Concert Choir) is open to Treble Voice students in grades 9, 10, 11 and 12 who have auditioned for placement in this ensemble. 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. Areas of refinement include a cappella singing, sight-reading and critical listening skills. 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 will be scheduled for rehearsals and performances, including public performances which serve as a culmination of daily rehearsal and musical goals. Students are required to participate in rehearsals and performance opportunities outside of the school day that support and extend learning in the classroom. Students are expected to maintain a minimum current term 2.0 GPA. There is a participation/costume fee associated with this class.

- Required Prerequisite: Audition with the director for placement
- Recommended Prerequisite: Beginning and Intermediate Chorus
- A Core 40 and AHD course
- This course may be a full-year course and may be taken for successive semesters
- A one credit course per semester

#### **Advanced Chorus (Encores) (5410-5420) Elective 9-10-11-12**

Advanced Chorus (Encores) is open to students in grades 9, 10, 11 and 12 who have auditioned for placement in this ensemble. 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. Areas of refinement include a cappella singing, sight-reading, critical listening skills and choreography. Students learn proper dance technique and are expected to rehearse and perform choreography at a competitive level. 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. Weekly time outside of the school day will be scheduled for rehearsals and performances, including public performances which serve as a culmination of daily rehearsal and musical goals. Students are required to participate in rehearsals and performance opportunities outside of the school day that support and extend learning in the classroom. Students are required to participate in numerous full-day Saturday events. Students are expected to maintain a minimum current term 2.0 GPA. There is a participation/costume fee associated with this class.

- Required Prerequisite: Audition with the director for placement
- Recommended Prerequisite: Beginning and Intermediate Chorus
- A Core 40 and AHD course
- This course is a full-year course and may be taken for successive semesters
- A one credit course per semester
- Students are eligible for a P.E. Waiver

**\*NOTE: Any student who did not audition for choir needs to be placed in the following class:**

**9th Grade Treble Voices: Beginning Chorus (5323-5324)**

**10th-12th Grade Treble Voices: Chorale (5330-5340)**

**9th-12th Grade Tenor/Bass Voices: Beginning Chorus (5321-5322)**

#### **Theatre Arts 1 (2710) Elective 9-10-11-12 Semester 1 only**

Theatre Arts 1 is designed to familiarize students with the fundamentals of acting, which includes Varieties of Drama, History of Drama, Improvisation and Pantomime, Vocal Production, and basic script work. Students will focus on collaboration, physical acting, and vocal inflection as related to performance. Students will develop communication, listening, and vocal production skills. During the pantomime/mime unit, students will develop scenes using facial expressions, gestures, and body movement to convey messages to an audience. Students are required to purchase a ticket and attend at least one live theatrical performance per semester.

- A Core 40 and AHD course
- A one credit course per semester

- The nature of this course allows for successive semesters of instruction

### **Theatre Arts 2 (2720) Elective 9-10-11-12 Semester 2 only**

Theatre Arts 2 is a continuation of the skills and foundations learned in Theatre Arts I with emphasis on memorization, vocal interpretation of scripts and monologues. Students will also learn about the technical aspects of Theatre and produce a one act play or scenes. Constructive criticism is a focus when viewing scenes in class. The process of study, analysis, and evaluation enables students to learn to make personal artistic choices and aesthetic evaluation of a theatrical work. Students are required to purchase a ticket and attend at least one live theatrical performance per semester.

- A Core 40 and AHD course
- A one credit course per semester
- The nature of this course allows for successive semesters of instruction

### **Advanced Theatre Arts 1-2 (Improvisation/Reader's Theatre) (2721-2722) Elective 10-11-12**

Advanced Theatre Arts 1-2 is an auditioned special topics class available for the student who wants to continue to study theatre and develop their skills as readers and performers of the written word. Students will develop more confidence in stage performance. They will learn different vocal techniques which help each student create images that will convey feelings and character while interpreting literature for the audience. These activities should incorporate elements of theatre history, culture, analysis, response, creative process and integrated studies. Students are required to purchase a ticket and attend at least one live theatrical performance per semester.

- This is an auditioned course
- Prerequisite: Theatre Arts 1 and 2 with a "C" or higher
- A Core 40 and AHD course
- The nature of the course allows for successive semesters of instruction at an advanced level.
- A one credit course per semester

### **Advanced Acting 3-4 (2725-2726) (Pike Players) Elective 10-11-12**

Advanced Acting 3-4 is an audition only course for students with a keen interest in pursuing Theatre performance. Students must have taken and passed the Theatre Arts 1 and 2 courses with a "C" or better. Students will heighten their abilities by memorizing and performing published and student-written monologues and scenes. Students will take part in the annual Winter Theatre Showcase and work with Technical Theater to produce one Children's Theatre Production a semester. For such production, in-class rehearsals will be utilized, but the production may require rehearsal outside of class time. As the students evaluate a script they will understand the various ways the playwright, director, and actors collaborate and resolve conflicts which may occur within the creative process. Instruction in this course builds upon the skills taught in the previous semester of theatre training focusing on character development. Examination of career choices and opportunities includes instruction in the auditioning and interviewing process. Students are required to purchase a ticket and attend at least one live theatrical performance per semester.

- Prerequisite: Audition and passing Theatre Arts I and II with a C or better
- A Core 40 and AHD course
- The nature of the course allows for successive semesters of instruction at an advanced level.
- A one credit course per semester

### **Technical Theatre (Technical Theatre) (2755-2756) Elective 10-11-12**

Technical Theatre combines the theories of design and stage craft with construction and operation of the various elements of technical theatre. Students are provided with opportunities to: develop stagecraft skills while working for the Performing Arts Department's productions and while working with the technical director on the average of 16 theatrical productions produced each year. Students learn various techniques in scenery, lighting, props, costumes and makeup. Students will practice theatre safety and learn effective stage management and promotional techniques. Students with strong math and science, art, or construction abilities or interest are strongly encouraged to take this course. Students will be required to work outside the planned school day a minimum of 10 hours for the 16 main productions of the department. Students are required to purchase tickets in order to attend, discuss and evaluate one theatrical productions a semester. Students are required to work crew/behind the scenes for a production or concert. All students must maintain at least a 2.0 current term GPA.

- Prerequisite: Theatre Arts 1-2 and Instructor Approval
- A Core 40 and AHD course
- The nature of this course allows for successive semesters of instruction at an advanced level provided that defined standards are utilized.
- A one credit course
- Students are expected to enroll in this course for the full school year

### **Theatre Production ("3 PT" Pike Performing Production Troupe) (2701-2702) Elective 10-11-12**

3PT is the most advanced Theatre course. Members are selected by audition. This course allows students to further expand upon their ability to make strong artistic choices as an actor or technician in the production of plays. They will have developed a vocabulary and an appreciation for the theatre. Students will participate in performing, staging and designing works studied in class by creating consistent characters from a variety of theatrical works, demonstrating effective management of emotions as an individual and as a character. Students will analyze other productions and reflect upon their own performance, either as an actor or as a technician. They will work collaboratively with technical theatre students and fellow actors in creating works for the public. Practical hands-on experiences in acting, directing and stagecraft are provided through the preparation and production of at least two plays per year. Although the course meets during a regularly scheduled class period, the scope of activities requires additional time outside the school day hours. Students are required to purchase tickets in order to attend, discuss and evaluate at least two theatrical productions. All students must maintain at least a 2.0 current term GPA.

- This is an IB course
- Prerequisite: Audition/Instructor Approval, as well as Passing Advanced Theatre Arts or Technical Theatre with a "C" or higher
- A Core 40 and AHD course
- The nature of this course allows for successive semesters of instruction at an advanced level provided defined standards are utilized.
- A one credit course
- Students are expected to enroll in this course for the full school year

## **PHYSICAL EDUCATION**

**Chairperson: Mrs. Kurt Benjamin, 317-387-2600**

### **Physical Education Department Student Scheduling Information**

1. Students may apply for the Pike High School Physical Education Waiver through participation in one of these approved extracurricular activities: Any IHSA sanctioned sport, NJROTC Drill Teams, Pike High School Cheerleading, or one of the following Performing Arts activities: Marching Band, Mystiques, Encores, Dance, Winter Drumline, Guard and Winter Guard. Sponsors of these activities send lists of participants to administration and PE credits are then posted to transcripts.
2. Students may earn one or both of their Physical Education credits through enrollment in these courses through Indiana Online, [www.indianaonline.org](http://www.indianaonline.org).
3. Students may NOT be enrolled in an elective Physical Education class without first receiving both credits for Physical Education I and II. The only exception to this being a student enrolled in Physical Education I/II and Advanced Physical Fitness at the same time.
4. Advanced Physical Fitness is a "by permission" class and students should not be enrolled in Advanced Physical Fitness unless they are in grade 10, 11, or 12. They should have completed or be currently completing their PE I/II credits. Due to the physical rigor of the Advanced Physical Fitness class, it is strongly recommended students have some weight training experience.
5. It is strongly recommended that if a student does not pass Physical Education I or II, he/she should be required to be enrolled in the same semester of Physical Education.

### **Physical Education I 1B (6010); 1G (6030)**

This course emphasizes health-related fitness and the development of skills and habits necessary for a lifetime of activity. This program includes skill development and the application of rules and strategies of complex difficulty in the following different movement forms: (1) health related fitness activities (cardio-respiratory endurance, muscular strength and endurance, flexibility, and body composition), (2) aerobic exercise, (3) team sports, (4) individual and team sports, (5) water safety (students will be required to be involved in activities associated with learning to swim), and (6) recreational games. Ongoing assessment includes both written and activity based evaluations. This course will also include a discussion of related careers.

- *Completion by Grade 10 recommended*
- This credit is required to meet state graduation requirements.
- A one-semester course

### **Physical Education II 2B (6020); 2G (6040)**

This course emphasizes a personal commitment to lifetime activity and fitness for enjoyment, challenge, self-expression, and social interaction. This course provides students with opportunities to achieve and maintain a health enhancing level of physical fitness and increase their knowledge of fitness concepts. It includes the following movement forms without repeating those offered in Physical Education I: (1) health related fitness activities, (2) aerobic exercise, (3) team sports, (4) individual and team sports, (5) water safety (students will be required to be involved in activities associated with learning to swim), and (6) recreational games. Ongoing assessment includes both written and activity based evaluations. This course will also include a discussion of related careers.

- *Completion by Grade 10 recommended*
- This credit is required to meet state graduation requirements
- A one-semester course

### **Physical Fitness (6070-6080) Elective 10-11-12**

The goal of this class is to improve each student's physical fitness level. Emphasis will be placed on gaining muscular strength, flexibility, and cardiovascular endurance. Daily activities will include a stretching routine, a running regimen, and weight training. Additional activities may be added at discretion of instructor. Skill testing will be used to help assess student progress.

- Prerequisite: credits earned in Physical Education I and II

### **Advanced Physical Fitness (6170-6180) Elective 10-11-12**

This is an intense course that aims at making marked improvements in the speed, agility, and strength of the participant. The focus of this course is on the individual needs of the athlete as they pertain to his/her particular sport. Emphasis is placed on plyometrics, agility, and a structured weight program. It is recommended that the student enroll in this course both semesters to obtain the maximum benefit.

- Prerequisite: Student must be an athlete on a PHS athletic team sanctioned by the IHSA (clubs not included), must be recommended for the class by his/her varsity coach and/or PE department chairperson, must maintain a grade of "C or better at semester, and must stay in good standing with his/her current varsity sport. Students must have passed PE I and II or be concurrently enrolled in PE I/II.

### **Team Sports (6090-6100) Elective 10-11-12**

This course is taught in a team type of atmosphere and structured to meet the needs and capabilities of the competitive student. Focus of the course is on skill and knowledge development in a variety of team sports, including basketball, flag football, soccer, and softball. Students will understand basic rules, terminology, strategies, and tactics of these sports, improve or maintain their personal levels of fitness, while fine-tuning their athletic skills and developing new relationships.

- Prerequisite: credits earned in Physical Education I and II

### **Health Education (Health and Safety) (6310)**

High school health education provides the basis for continued methods of developing knowledge, concepts, skills, and behaviors, and attitudes related to student health and well-being. This course includes the major content areas in a planned, sequential, comprehensive health education curriculum as expressed in the Indiana Health Education Standards Guide. Students are provided with opportunities to explore the effect of health behaviors on an individual's quality of life. This course assists students in understanding that health is a lifetime commitment of analyzing individual risk factors and health decisions that promote health and prevent disease. Students are also

encouraged to assume individual responsibility for becoming competent health consumers. A variety of instructional strategies, including technology, are used to further develop health literacy.

- This course is required for all freshmen and also to meet state graduation, Academic Honors Diploma, and Core 40 requirements
- A one-credit course
- A freshman required course

#### **Lifeguarding (6312) Elective 11-12**

The purpose of the Lifeguarding course is to provide entry-level lifeguard participants with the knowledge and skills to prevent, recognize and respond to aquatic emergencies and to provide care for breathing and cardiac emergencies, injuries and sudden illnesses until emergency medical services (EMS) personnel take over.

- Prerequisite: Must be 15 years old
- A one-credit course

#### **Fitness Swimming & Water Games (6313) Elective 11-12**

Students in this class will have the chance to improve their fitness through swimming and other water activities. Students will learn about the history and techniques of competitive swimming. Students will learn about the basics of water safety and why pool rules are important. Students are introduced to the basics of Aquatics. In this class students will be given an introduction to Aquatics, and will learn that Aquatics could be a potential Career opportunity. With the fitness component, students will learn about the health aspects of swimming. Finally, students will learn about water games such as Water Polo, Water Basketball, Water Volleyball and Water Aerobics.

- Prerequisite: completion of PE I & II  
Recommended Grade Level: 11, 12

### **SCIENCE AND TECHNOLOGY**

**Chairperson: Darren Fox, 317-387-4612**

#### **Anatomy & Physiology DC (L) (6330-6340) Grade 11-12**

*Anatomy & Physiology DC* is a course in which students investigate concepts related to the Health Sciences. Through instruction, including laboratory activities, students apply concepts associated with Human Anatomy & Physiology. Studies include the process of homeostasis and the essentials of human function at the level of genes, cells, tissues, and organ systems. Students will understand the structure, organization, and function of the various components of the healthy human body in order to apply this knowledge in all health-related fields. Students enrolled in this course should have a basic understanding of the Principles of Biology including: Molecules and Cells, Developmental and Organismal Biology and Genetics. Students should also know the principles of atomic structure, bonding, molecules, and structural formulas, types of chemical reactions, principles of acids and bases, and molarity. The course should include ample laboratory experiences that illustrate the application of the standards to the appropriate cells, tissues, organs, and organ systems. Extensive use of human models will replace dissection in this course. Students should be able to use basic laboratory equipment such as microscopes, balances, and pipettes.

- Required Prerequisite: Biology, DC Chemistry (A or B) or Physics (A or B), and qualifying Accuplacer Score
- Credits: A two semester, two credit course awarding an AP level weighted grade
- Counts as a science course for all diplomas

#### **AP Biology/ IB Biology HL (L) (6545-6546) Grade 11-12**

*AP Biology* is a course based on the content established by the College Board. Topics include: (1) molecules and cells: chemistry of life, cells, cellular energetics; (2) heredity and evolution: heredity, molecular genetics, evolutionary biology; and (3) organisms and populations: diversity of organisms, structure and function of plants and animals, ecology. The major themes of the course include: science as a process, evolution, energy transfer, continuity and change, relationship of structure to function, regulation, interdependence in nature and science, technology, and society. Students taking this course will take the AP Biology Exam. All students seeking an IB diploma must take this course as a junior and will need to take IB Biology II HL as a senior.

- Required Prerequisite: Biology I and Chemistry I (A minimum grade of “C” in each)
- Credits: A two semester, two credit course awarding an AP level weighted grade
- Counts as a science course for all diplomas
- Qualifies as a quantitative reasoning course

#### **AP Chemistry (L) (6840-6841) Grade 11-12**

*AP Chemistry* is a course based on the content established and copyrighted by the College Board. The content includes: (1) structure of matter: atomic theory and structure, chemical bonding, molecular models, nuclear chemistry; (2) states of matter: gases, liquids and solids, solutions; and (3) reactions: reaction types, stoichiometry, equilibrium, kinetics and thermodynamics.

- Prerequisite: Chemistry 1 DC, Algebra II, Pre-Calculus/Trigonometry
- Credits: A two semester, two credit course awarding an AP level weighted grade
- Counts as a science course for all diplomas
- Qualifies as a quantitative reasoning course

#### **AP Environmental Science / IB Environmental Systems SL (L) (6741-6742) Grade 11-12**

*AP Environmental Science* is a course based on content established by the College Board. Students enrolled in AP Environmental Science investigate the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. Course work in this class may include participation in the teen teaching program in the Outdoor Education Lab.

- Prerequisite: successful completion of high school Chemistry or Physics
- Prerequisite: Passed Biology 1-2 with a “C” or better
- Credits: A two semester, two credit course awarding an AP level weighted grade
- Counts as a science course for all diplomas
- Qualifies as a quantitative reasoning course

**AP Physics 1 / IB Physics I SL (L)** (6910-6920) Grade 10-11-12

*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 I is equivalent to a first-semester college course in algebra-based physics. The course explores the topics of systems, fields, force interactions, change and conservation. Students seeking an IB diploma must also take AP Physics 2 to complete SL credit. [Students taking this course will take the AP Physics 1 exam.](#)

- Prerequisite: Two years of high school math required, Pre-Calculus/Trigonometry suggested
- Credits: A two semester, two credit course awarding an AP level weighted grade
- Counts as a science course for all diplomas
- Qualifies as a quantitative reasoning course

**AP Physics 2 / IB Physics II SL (L)** (6929-6930) Grade 11-12

*AP Physics 2* is an algebra-based, introductory college-level physics course. Students cultivate their understanding of Physics through inquiry-based investigations as they explore topics such as fluid statics and dynamics; thermodynamics with kinetic theory; PV diagrams and probability; electrostatics; electrical circuits with capacitors; magnetic fields; electromagnetism; physical and geometric optics; and quantum, atomic, and nuclear physics. Students taking this course will take the AP Physics 2 exam. Students seeking an IB diploma will take the IB Physics SL exam.

- Required Prerequisite: AP Physics 1
- Credits: A two semester, two credit course awarding an AP level weighted grade
- Counts as a science course for all diplomas
- Qualifies as a quantitative reasoning course

**Biology I (L)** Grades 10-12 (6521-6522), **Honors** Grade 9 (6523-6524)

*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 Level: 10 (or 9 if Honors)
- Prerequisite: ICP
- Grade 9 students who have passed ICP with an A may take Honors Biology
- Credits: A two semester, two credit course, honors awarding a second level weighted grade
- Fulfills the Biology science requirement for all diplomas

**Chemistry I (L):** (6810-6820) Grade 10-11-12

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

- Required Prerequisite: Two years of high school math (Algebra 1/Algebra 2 or Algebra 1/Geometry)
- Credits: A two credit, two semester course
- Fulfills a science (physical) requirement for all diplomas
- Qualifies as a quantitative reasoning course

**Chemistry I, DC** (6825-6826) Grade 10-11-12

Chemistry I DC gives the student the opportunity to earn 5 semester hours of college credit through Indiana University for C 101/121 under the provisions of 511 IAC 22-10.11-22.2-1-2.6. The content includes: structure of matter: atomic theory and structure, periodicity, chemical bonding, molecular models, nuclear chemistry, states of matter: gases, liquids and solids, solutions, reaction types, stoichiometry, thermochemistry and elementary organic chemistry.

- Required Prerequisites: C or higher in Algebra II, 2.7 Unweighted Cumulative GPA
- Credits: A two semester, two credit course awarding an AP level weighted grade
- Counts as a science course for all diplomas

**Earth and Space Science I (L)** (6690-6700) Grade 10-11-12

*Earth and Space Science I* is a course focused on the following core topics: study of the earth's layers; atmosphere and hydrosphere; structure and scale of the universe; the solar system and earth processes. Students analyze and describe earth's interconnected systems and examine how earth's materials, landforms, and continents are modified across geological time. Instruction should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation by designing and conducting investigations guided by theory and by evaluating and communicating the results of those investigations according to accepted procedures.

- Credits: A two semester, two credit course
- Counts as a science course for all diplomas

**Environmental Science (L)** (6730-6740) Grade 11-12

*Environmental Science* is an interdisciplinary course that integrates biology, Earth science, chemistry, and other disciplines. Students enrolled in this course conduct in-depth scientific studies of ecosystems, population dynamics, resource management, and environmental consequences of natural and anthropogenic processes. Students formulate, design, and carry out laboratory and field investigations as an essential course component. Students completing Environmental Science acquire the essential tools for understanding the complexities of national and global environmental systems. Course work in this class may include participation in the teen teaching program in the Outdoor Education Lab.

- Recommended Prerequisite: Passed Biology, met the physical science graduation requirement
- Credits: A two semester, two credit course
- Fulfills a science (life) course requirement for all diplomas
- Counts as a science course for all diplomas



**Animal Science (L)** (6568-6569) Grade 10-11

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

**Principles of Agriculture** (6566-6567) Grade 9-10

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.

- Required Prerequisites: none
- 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

**Integrated Chemistry-Physics (L)** (ICP) (6410-6420) Grade 9

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 Level: 9 or 10
- Recommended Prerequisite: Algebra I (may be taken concurrently with this course)
- Credits: A two semester, two credit course
- Fulfills the science (physical) for all diplomas

**IB Biology II HL (L)** (6331-6341) Grade 12

*IB Biology II HL* covers the relationship of structure and function at all levels of complexity. Students learn about cell theory, the chemistry of living things, plant science and genetics, among many other topics to further their understanding of and learning about biology. Throughout this challenging course, students become aware of how scientists work and communicate with each other. Further, students enjoy multiple opportunities for scientific study and creative inquiry within a global context. All students seeking an IB diploma must take this course as a group 4 HL course and must earn a qualifying score on the IB Biology HL exam.

- Required Prerequisite: AP Biology and be an IB Diploma candidate
- Credits: A two semester, two credit course awarding an AP level weighted grade

**IB Sports, Exercise and Health Science SL** (6342-6343) Grade 11-12

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

- Recommended Prerequisite: None
- Credits: A two semester, two credit course awarding an AP level weighted grade
- Counts as a science course for all diplomas, non-IB students may enroll

**Physics I (L):** (6905-6906) Grade 10-11-12

*Physics I* is a course focused on the following core topics: motion and forces; energy and momentum; temperature and thermal energy transfer; electricity; vibrations and waves; light and optics. 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.

- Required Prerequisite: Passed Geometry or Algebra II with a C or higher
- Credits: A two semester, two credit course awarding a third level weighted grade
- Fulfills the science (physical) requirement for all diplomas
- Qualifies as a quantitative reasoning course.

**About Project Lead the Way, Biomedical Option, PLTW** (8 semesters)

Project Lead the Way is a national program forming partnerships among public schools, higher education institutions and private sector to increase the quantity and quality of engineers and engineering technologists graduating from our educational system. Students participating in PLTW courses are better prepared for college engineering programs and more likely to be successful, thus reducing the attrition rate in these college programs, which currently exceeds 50% nationally. PLTW has developed a four-year sequence of courses which, when combined with traditional mathematics and science courses in high school, introduces students to the scope, rigor and discipline of engineering prior to entering college. Those not intending to pursue engineering careers will also benefit greatly from the knowledge and logical thought processes that result from taking some or all of the courses provided in the curriculum.

PLTW suggested Course sequence:

- Grade 9 or 10 – Principles of Biomedical Sciences (PBS) [Not required for students who take Biology I, Honors]
- Grade 10 – Human Body Systems (HBS) [This is an excellent course for students looking for an Anatomy course]
- Grade 11 – Medical Interventions (MI)

- Grade 12 – Biomedical Innovation (BI)

#### **PLTW Principles of Biomedical Sciences (4015-4016) Grade 9-10**

*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.

- Required Prerequisite: Biology I or concurrent enrollment in Biology I
- Credits: One credit per semester, a two semester course
- Counts as a science course for all diplomas

#### **PLTW Human Body Systems (4017-4018) Grade 10-11-12**

*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.

- Suggested Grade Level: 10
- Recommended Prerequisite: Principles of Biomedical Sciences or Biology I Honors
- Credits: One credit per semester, a two semester course
- Counts as a science course for all diplomas

#### **PLTW Medical Interventions (4011-4012) Grade 11-12**

*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 including vascular stents, cochlear implants, and prosthetic limbs. Lessons will cover the history of organ transplants and gene therapy with additional readings from current scientific literature addressing cutting edge developments. Using 3-D imaging software, students will design and build a model of a therapeutic protein.

- Required Prerequisites: Principles of Biomedical Sciences, Human Body Systems AND an A or B in Anatomy & Physiology DC
- Credits: One credit per semester, a two semester course
- Counts as a science course for all diplomas

#### **PLTW Biomedical Innovation (4013-4014) Grade 12 DC**

*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 university, hospital, physician’s office, or industry. Throughout the course, students are expected to present their work to an adult audience that may include representatives from the local business and healthcare community.

- Required Prerequisites: Principles of the Biomedical Sciences, Human Body Systems (or Anatomy and Physiology) and Medical Interventions
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

#### **About Project Lead the Way, Engineering Option, PLTW (8 semesters)**

Project Lead the Way is a national program forming partnerships among public schools, higher education institutions and private sector to increase the quantity and quality of engineers and engineering technologists graduating from our educational system. Students participating in PLTW courses are better prepared for college engineering programs and more likely to be successful, thus reducing the attrition rate in these college programs, which currently exceeds 50% nationally. PLTW has developed a four-year sequence of courses which, when combined with traditional mathematics and science courses in high school, introduces students to the scope, rigor and discipline of engineering prior to entering college. Those not intending to pursue engineering careers will also benefit greatly from the knowledge and logical thought processes that result from taking some or all of the courses provided in the curriculum.

PLTW suggested Course sequence:

- Grade 9 or 10 – Intro to Engineering Design (IED)
- Grade 10 – Principles of Engineering (POE)
- Grade 11 – Digital Electronics (DE) or Environmental Sustainability (ENV SUS)
- Grade 12 – Engineering Design and Development (EDD)

#### **PLTW Introduction to Engineering Design (4001-4002) Grade 9-10-11-12 DC**

*Introduction to Engineering Design* is an introductory course which develops student problem solving skills with emphasis placed on the development of three-dimensional solid models. Students will work from sketching simple geometric shapes to applying a solid modeling computer software package. They will learn a problem solving design process and how it is used in industry to manufacture a product. The Computer Aided Design System (CAD) will also be used to analyze and evaluate the product design. The techniques learned, and equipment used, is state of the art and are currently being used by engineers throughout the United States.

- Recommended Prerequisite: Algebra 1 (may be taken concurrently)
- Credits: A two credit, two semester course
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

#### **PLTW Principles of Engineering (4003-4004) Grade 10-11-12 DC**

*Principles of Engineering* is a broad-based survey course designed to help students understand the field of engineering and engineering technology and its career possibilities. Students will develop engineering problem solving skills that are involved in postsecondary education programs and engineering careers. They will also learn how engineers address concerns about the social and political consequences of technological change.

- Recommended Prerequisites: Introduction to Engineering Design (Project Lead the Way)
- Credits: A two credit, two semester course
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

**PLTW Digital Electronics (4090-4095) Grade 11-12**

*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.

- Required Prerequisites: Introduction to Engineering Design and Principles of Engineering
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as a quantitative reasoning course

**PLTW Computer Integrated Manufacturing (4086-4087) Grade 11-12 DC**

*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 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

- Recommended Prerequisites: Introduction to Engineering Design & Principles of Engineering
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as a quantitative reasoning course

**PLTW Environmental Sustainability (6728-6729) Grade 11-12**

*Environmental Sustainability* is a specialization course that builds upon prior knowledge learned in pre-engineering courses. Students investigate and design solutions to in response to the current challenges of 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 their knowledge through designing experiments, project management, conducting research, and creating presentations to communicate solutions.

- Required Prerequisites: Introduction to Engineering Design and Principles of Engineering
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

**PLTW Engineering Design and Development (4007-4008) Grade 12**

*Engineering Design and Development* is designed to introduce students to the fundamental aspects of engineering and engineering technology. Instruction will emphasize underlying principles of engineering processes and the development of three-dimensional solid models. Instructional activities will build skills ranging from sketching simple geometric shapes to applying a solid modeling computer software package. Students will develop critical thinking and problem-solving skills through instructional activities that pose design and application challenges for which they develop solutions. The techniques learned, and equipment used, should be state of the art and reflect equipment and processes currently being used by engineers throughout the United States.

- Recommended Prerequisites: Introduction to Engineering Design, Principles of Engineering, either Computer Integrated Manufacturing or Environmental Sustainability
- Credits: A two credit, two semester course
- Counts as a Directed Elective or Elective for all diplomas

**Introduction to Advanced Manufacturing and Logistics (4082-4083) Grade 11-12**

*Introduction to Advanced Manufacturing and Logistics* is a course that specializes in how people use modern 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 such as: metals; polymers; ceramics; and composites. 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 Level: Grade 9-12
- Recommended Prerequisites: None
- Credits: 1 credit per semester, 2 semesters maximum, maximum of 2 credits
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

**Advanced Manufacturing I**

*Advanced Manufacturing I* is a course that includes classroom and laboratory experiences in two broad areas: Industrial Technology/Software Controls and Manufacturing Trends. Industrial Technology and Software Controls covers wiring and schematic diagrams used to design, install, and repair electrical/electronic equipment such as wireless communication devices, programmable controllers. Course content will include basic theories of electricity, electronics, digital technology, and basic circuit analysis. Activities include: soldering; use of an oscilloscope, meters, signal generators and tracers; bread-boarding; circuit simulation software; and troubleshooting. Understanding and using the underlying scientific principles related to electricity, electronics, circuits, sine waves, and Ohm's Law are integral to this course. Manufacturing Trends covers basic concepts in manufacturing operations and plant floor layout in the production environment. Applications of Computer Numerical Control (CNC), and lathe and turning operations are developed as a foundation for machining operations. Coordinate system concepts are introduced as relevant to machining processes, as well as fluid and mechanical power, welding, and lean manufacturing. Fluid power concepts will include hydraulic components and circuits, laws and principles, fluid power controllers, and the construction of systems. In the mechanical power portion of the course, students will learn about machine specifications, basic forces, friction, simple machines, motors, and motor controls. Students will also be introduced to lean manufacturing where they will study concepts including: lean goals, product quality, eliminating waste, cost effectiveness, lean concepts, resource planning, continuous improvement, and the various advantages of lean manufacturing. This course includes MSSC concepts required to earn MSSC certification.

- Recommended Prerequisites: Introduction to Advanced Manufacturing
- Credits: 1-3 credits per semester, maximum of 6 credits

- Counts as a Directed Elective or Elective for the General, Core 40, Academic Honors and Technical Honors Diplomas
- This course is aligned with postsecondary courses for Dual Credit

## **SOCIAL STUDIES**

**Chairperson: Chris Wilson, 317-216-5414 or 317-216-5416**

### **World History (7010-7020) Elective 9-10-11-12**

Traditionally, this course is comprised of mainly 9th and 10th grade students. The emphasis of the course is to select the significant events of the past to study to provide a greater understanding of developments of our present world and appreciation of the achievements of other peoples. Most of the emphasis will be placed on political, economic, and social developments of various world cultures. The content of this course provides a basis for students to compare and analyze patterns of culture, emphasizing both the diversity and commonality of human experience and behavior. Beginning with a study of ancient societies continuing to modern societies, the continuity of history can be recognized. By viewing the problems of the past, students may gain a historical perspective of present problems.

- A Core 40 and AHD course

### **Honors World History (7021-7022) Grade 9**

This course is intended for any student who has an interest in studying world history regionally, thematically, and chronologically. The first semester of the course is a study in ancient history including Egypt, Greece, Rome, the Byzantine Empire, the Middle Ages, the Renaissance, and the development of nation-states up to 1800. The second semester concentrates on modern history from 1800 to present. This course is only offered to students in the ninth grade. Project activity will be geared to individual interest areas of the second semester material, independent study, and a term paper.

- A Core 40 and AHD course weighted at the honors level

### **World History Modern, AP (7023-7024) Recommended for Grade 9; Elective 9-10-11-12**

This course is intended for any student who chooses to enter the International Baccalaureate program or has an interest in studying world history in depth. Additionally Geography and History of the World and economics standards established by the state are incorporated into the curriculum. This course concentrates on modern history from 1800 to the present. This course is offered to students in grades 9-12. It is intended for the student who is interested in researching historical problems and in reading extra materials related to historical research. The course objectives go beyond merely studying world history chronologically to that of studying thematic historical development and historical conceptual development. Project activity geared to individual interest areas will be dealt with through independent study, including a required term paper each semester. The students will also have the opportunity to gain college credit by taking and passing the World History AP test in May.

- A Core 40 and AHD course
- A Pre-IB Course

### **Sociology (7030) Elective 10-11-12**

The emphasis of this course is the study of the interrelated interactions of people through the study of group dynamics. Topics studied include: the family, religion, political and social groups, leisure-time organizations/activities, stereotyping, discrimination, and prejudice. Moral values, traditions, folkways, the mobility of people, and other factors in society which influence group behavior, are also studied. This is an excellent course in helping students understand the complex world they live in and to better cope with the problems they face.

- A Core 40 and AHD course

### **Geography and History of the World (7005-7006) Recommended Grade 9**

Students develop and use the six elements of geography to better understand current events and issues facing the world today. These elements are: The World in Spatial Terms, Places and Regions, Physical Systems, Human Systems, Environment and Society, and the Uses of Geography. Student will demonstrate an understanding of these elements of geography in a context of world history, primarily from 1450 to present.

- No prerequisite
- A two-credit, two-semester course
- A Core 40 and AHD course

### **Psychology (7070) Elective 10-11-12**

This course provides an opportunity to study both individual and social psychology and how the knowledge and methods of psychologists are applied to the solution of human problems. Content for the course includes some insights into behavior patterns and adjustments to social environments. With the understanding of these behavior patterns, one can enhance his/her personal and social adjustments in a changing world. The course should help students develop critical attitudes toward superficial generalizations about human beings, respect for the difficulty of establishing the truth of a proposition, and a heightened sensitivity to the feelings and needs of others. Topics studied include the nature of psychology, human growth and development, attention/perception, learning, and personality.

- A Core 40 and AHD course

### **AP Psychology (7083-7084) Elective 10-11-12**

The Advanced Placement Program is a cooperative endeavor of secondary schools, colleges, and the College Board. By completing an AP course and scoring successfully on the examination, students are more likely to persist and succeed in college. The AP Psychology course is a two-semester course taught at the college level of difficulty using primarily lecture/guided discussion. The course work is completed midway through the second semester in order to allow time for a structured review for the course work in preparation for the AP Examination given in May. The course is organized to reflect the emphasis given by the College Board. Once the Exam has been taken the focus switches to a mini-research activity allowing students to pursue a topic of special interest and to obtain experience in doing multi-media, technology-based research. Psychology is defined as the science of behavior and mental processes, which is the focus of the course. After an introduction into the discipline and methods of study, a strong psycho-biological approach is used to analyze human physiology as it relates to the study of psychology. Subsequently, students research and evaluate the basic processes of learning, memory, thinking, language, intelligence, motivation, and emotion are addressed. An additional study includes the development of the self, which incorporates a study of life span development, gender/sexuality, and personality. The last area of concentration includes social psychology and psychological disorders and appropriate treatments. Students scoring high enough on the AP test may have an opportunity to secure college credit or advanced placement.

- A Core 40 and AHD course
- A two semester, AP level weighted course

### **AP Human Geography (7060-7061) Elective 10-11-12**

This course is based on the content established by the College Board. The purpose of the AP Human Geography course is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine

human social organization and its environmental consequences. They also learn about the methods and tools geographers use in their science and practice. Topics include: (1) Geography: its nature and perspectives, (2) population, (3) cultural patterns and processes, (4) political organization of space, (5) agriculture and rural land use, (6) industrialization and economic development, and (7) cities and urban land use.

- A Core 40 and AHD course
- An AP level weighted course

#### **African American History (7108-7109) Elective 11-12**

*African Studies* helps students understand and appreciate the diverse peoples, cultures, and economic systems of the African continent. This course examines: (1) the early kingdoms and cities of Africa, (2) early trade routes with Europe and the East, (3) the influence of African culture in the Americas, (4) European colonization of Africa, (5) African influences in the United States, (6) the establishment of independent nations in Africa, and (7) contemporary traditions, literature, art and other aspects of culture.

- A Core 40 and AHD course
- May be taken for one semester or two semesters

#### **United States History (7110-7120) Required 11**

U. S. History emphasizes national development from the late nineteenth century to the present and builds upon concepts developed in previous studies of American history. The course gives major emphasis to the interaction of historical events and geographic, social, and economic influences on national development. A chronological, topical, or comparative approach may be used in developing themes from America's past as they relate to circumstances, as they exist today. Students are given the opportunity to demonstrate the ability to trace and analyze chronological periods and examine the relationships of significant themes and concepts in United States history. Students will be able to sequence historical events, examine cause and effect relationships, identify different perspectives, and relate historical situations to current issues. Opportunities are given to develop inquiry skills by gathering and organizing information from primary source material and a variety of historical and contemporary sources, accounts, and documents. Students will have the opportunity to investigate themes and issues and analyze the importance of cultural pluralism and diversity of opinion in American society. Students are given opportunities to exercise their skills as citizens in a democratic society by engaging in problem solving and civic decision-making in the classroom, school and community settings.

- A Core 40 and AHD course

#### **United States History, DC (7121-7122) Elective 11**

This is a two-semester alternative to regular United States History. Students who take this course need to have an enthusiastic interest in studying and researching United States history. The course offers both project-based work and an in-depth study of United States history from European exploration to the present. There is an emphasis on the reading of primary source material as well as the reading of secondary source material. A formal term paper is a requirement for both semesters. Students scoring well enough in the class and on the final exam are eligible for dual credit through Vincennes University. Dual credit is not offered to students before their junior year.

- A Core 40 and AHD course
- An AP level weighted course

#### **United States History, AP (7138-7139) Elective 10-11**

This is a two-semester alternative to regular United States History. Students who take this course need to have an enthusiastic interest in studying and researching United States history. The course offers both project-based work and an in-depth study of United States history from European exploration to the present. There is an emphasis on the reading of primary source material as well as the reading of secondary source material. A formal term paper is a requirement for both semesters. Students scoring high enough on the AP test may have an opportunity to secure college credit or advanced placement. Pre-IB students should take this course in their sophomore year.

- A Core 40 and AHD course
- A Pre-IB course.
- A two semester, third level weighted course

#### **Indiana Studies (7124) Elective 10-11-12**

This course compares and contrasts state and national developments in the areas of politics, economics, history, and culture. Indiana history is used as a basis for understanding current policies, practices, and state legislative procedures. Selections from Indiana arts and literature may also be analyzed for insights into historical events and cultural expressions.

- A Core 40 and AHD course
- A one-credit, one-semester course offered during the spring semester only

#### **United States Government (7210) Required 12**

The course provides a framework for understanding the nature and importance of responsible civic participation and for learning the rights and responsibilities of individuals in a constitutional democracy. The course allows students to explore the evolution of the political institutions and basic philosophies that have developed into contemporary political and legal systems within the United States. Constitutional structure and the processes of the legislative, executive, and judicial branches of the national government are examined. Students learn to observe, analyze, and draw conclusions about the impact and interrelationships of history, geography, and economics upon our system of government. Students will also learn to make comparisons of the U.S. political system with that of other political systems and make evaluations about the effectiveness of such systems. Students learn to analyze the roles of individuals and groups in the political process by identifying and analyzing current political issues. They also learn to access data from primary and secondary resources and use current technology to access relevant source materials and as a tool for producing documents in support of individual or group learning projects. Students are given the opportunity to follow current political situations as they develop and to take, defend, and evaluate positions on those issues. They should also understand the processes by which individuals and/or groups influence policies and decision making. Students are encouraged to participate in learning experiences in the school and community to enable them to learn how to participate effectively in the political process. The study of U.S. Government also offers students opportunities to develop knowledge, inquiry skills, and the means to preserve and improve our constitutional democracy.

- A Core 40 and AHD course

#### **Online United States Government (7211) Elective 12**

The blended government class will incorporate all of the components of the regular United States Government class into an alternate learning platform. Students taking this class will make extensive use of computers for instruction. Using this electronic format, students will participate in class activities, complete assignments, and collaborate on projects outside of the classroom. In-class attendance will be required one day a week while the rest of the course is conducted online. It is recommended that only responsible students who are prepared for the responsibility of managing their time sign up for this course. The class will be scheduled for 7<sup>th</sup> period; **students who sign up must be able to provide their own transportation home on the days the class does not meet.** In addition, students taking this class **must have access to their own computer.**

- A Core 40 and AHD course
- Prerequisite: Students must have a minimum 3.0 cumulative grade point average

- Enrollment will be limited to 30 students each semester

### **AP Government (7238) Elective 11-12**

This is a one-semester course designed for the highly motivated government student. Students are expected to study U.S. political institutions in depth. They are required to do extensive outside readings to supplement in-class assignments. An emphasis is placed on researching primary and secondary sources. Using technology-based research methods, students will research selected Supreme Court decisions, analyze the facts of the case and the opinions rendered, and analyze the social, political and economic impact of the decisions. Students will also research selected presidential administrations, note the accomplishments or lack thereof, analyze them, and make evaluations of these administrations based on their leadership/management style and their effectiveness of leadership.

- Prerequisite: AP US History
- A Core 40 and AHD course
- Meets Government requirement for graduation
- A one-semester AP level weighted course

### **IB Twentieth Century Government and Politics/IB European History II (7251-7252) Elective 12**

This two-semester college-level course is the second year course of the IB curriculum. The prerequisite for the course is to have successfully completed United States History AP or to have a teacher recommendation. In this course, students will examine the dominant political ideologies and economic systems of the twentieth century as well as how these manifested themselves and affected the world in this time period. The course will focus primarily on how the postwar non-Western world adapted these ideologies to their particular circumstances as well as the successes and mistakes they encountered in the process of establishing their independence from their colonial masters. Topics of focus will include: revolutionary China, Nigeria, Tanzania, Cuba, Egypt, and the Arab-Israeli conflict.

- Prerequisite: AP European History or teacher recommendation
- A Core 40 and AHD course weighted at the AP level
- Only IB students may enroll in this course
- Meets the government requirement for graduation when taken for two semesters

### **AP/IB European History (7150)**

AP European History is an intensive course designed to prepare the students for the AP exam in May. The focus of the class is the study of European history from 1450 to the present. This course provides a basic narrative of events and movements during the selected years. The goals of this study are to develop (a) an understanding of some of the principal themes in modern European history, (b) an ability to analyze historical evidence, and (c) an ability to analyze and to express historical understanding in writing. Therefore, primary source materials and writing will be important elements of the class. Selected non-European areas will be studied after the AP exam.

- A Core 40 and AHD course weighted at the AP level
- An IB Course – first year IB course, open enrollment for anyone

### **Economics (7310) Required 12**

The American free enterprise system is the focal point of the study. This course examines basic models of decision making at various levels in different areas including: (1) decisions made as a consumer, producer, saver, investor, and voter; (2) business decisions to maximize profits; and (3) public policy decisions in specific markets dealing with output and prices in the national economy. Both micro- and macro-economic concepts are studied and evaluated. A technology-based stock market project is required in the course of study. The main goal of the course is to develop awareness that all humans must make logical, rational choices in competing for the world's scarce resources.

- A Core 40 and AHD course

### **\*\*AP Micro-Economics (7338) Elective 11, 12**

Micro-economics is a one-semester course for the highly motivated student offered during the **first semester**. This course is an introduction to basic economic principles with applications to current economic problems. Emphasis is on understanding how households and business firms make decisions in the U.S. economy. Topics include how prices are determined and how they help solve the economic problem of scarcity, the distribution of income and wealth, problems of monopoly power, labor unions and labor problems. Students will examine these micro-economic concepts and philosophy in depth. Particular emphasis is placed on students being able to read and interpret graphs as well as to create their own graphs of economic models. Students are required to do extra reading in addition to the textbook and do extensive research on various economic topics. Additionally, there is a required stock market project included in the course of study. Students will use computer technology to research their stock selections; track the price fluctuations; buy, sell, or hold their investments; and analyze the reasons for the profit/loss of their investments. Those who score high enough on the AP exam may earn college credit or advanced placement.

- A Core 40 and AHD course with AP level weighting

### **\*\*AP Macro-Economics (7339) Elective 11, 12**

This is a one-semester course offered during the **second semester**. Students will study economic theory as it applies to the economy as a whole and decision-making by large units within the economy. The study will include examining the economy in terms of the total amount of goods and services produced, total income earned, the level of employment of productive resources, and the general behavior of prices. The policy goals of the discipline include economic growth, price stability, and full employment. Students will study these macro-economic concepts and philosophy in depth. Particular emphasis is placed on students being able to read and interpret graphs as well as to create their own graphs of economic models. Students are required to do extra reading in addition to the textbook and do extensive research on various economic topics. Additionally, there is a required stock market project included in the course of study. Students will use computer technology to research their stock selections; track the price fluctuations; buy, sell, or hold their investments; and analyze the reasons for the profit/loss of their investments.

- A Core 40 and AHD course with AP level weighting

Those who score high enough on the exam may earn college credit or advanced placement.

\*\*Students may take either or both AP Economics courses. Each is a one-credit course that meets the economics requirement. Students may take either or both College Board tests. If taking both tests, there is only one fee charged.

## **SPECIAL EDUCATION/EXCEPTIONAL LEARNERS**

**Chairpersons: Amanda Botsford, 317-216-5406**

**Felicia Gooden, 317-387-2756**

Pike High school offers a full continuum of classes to meet the needs of individuals with disabilities. Placement for special education services are based on psycho-educational testing, and parent or guardian permission in writing. Determination of services and the least restrictive environment are decided at a case conference meeting.

**Resource (7971-7972) Grade 9**  
**Resource (7977-7980) Grades 10-12**

Resource class is available to a Special Education student who is scheduled in general education academic coursework. The class assists students who are in general education academic courses with organizational skills, and study assistance. Communication between home and school is maintained by resource reports, which are sent at grading periods.

## **COMMUNITY BASED INSTRUCTION /VOCATIONAL CURRICULUM**

### **For Certificate of Completion**

#### **English 9 -10 (7950-7951)**

The content for this course focuses on improving written, and oral communication skills. Sentence structure and appropriate grammar /punctuation are improved through a variety of writing exercises including journal writing. Using literature as the focal point, students are encouraged to increase their reading comprehension and listening skills. Group discussion and activities include a career focus, as students begin to prepare for the work world.

#### **English 11-12 (7982-7983)**

This English class is for exceptional learners focusing on English skills necessary for success after high school in the world of work. The main focus of the program is to continue reading for comprehension from a wider range of topics. Expanding writing techniques include writing resumes, filling out application forms, and completing government forms.

#### **Math 9-10 (7952-7953)**

This course is designed to advance computational skills in the basic operations with integers, fractions, and decimals. Daily life application is emphasized in the areas of measurement, time, money and banking, graphs, and statistics. More abstract problem solving is developed with pre-algebra concepts, as well as Algebra and Geometry.

#### **Math 11-12 (7984-7985)**

This math class is for exceptional learners focusing on math skills necessary for success after high school. This course allows students to apply basic mathematical functions in problem solving and functional skills. Topics covered include calculating wages, calculating tax and tips in a restaurant, budgeting, balancing a bank account, grocery shopping, and understanding pay.

#### **Science 9-10 (7954-7955)**

This course will focus on the study of the structures and functions of living organisms and their interactions with the environment. The course will cover the processes that support life and the ecological relationships among organisms.

#### **Science 11-12 (7956-7957)**

This course includes the scientific methods and skills, needs of living things, ecology, cells, tissues, organs, simple organisms, plants, and animals. Students will be introduced to many unified themes which emphasize the relation between and relevance of living organisms.

#### **Vocational Life Skills/Job-Shadow Experience 1S-2S (7931-7932) Grade 10, 11, 12**

This course is based on a functional curriculum that is instructional in content, focusing on concepts and skills needed in areas of personal and social behavior, daily living, and occupational adjustment. Life Skills is intended to help make a smooth transition from the classroom to a career. There are opportunities to explore areas of interest and complete individual projects based on the student's needs. Students job shadow various businesses in the community of Pike Township for one period each day, three weeks at a job, six times during the year. During the three week periods that the student is not out in the community for job shadowing, the class work will encompass employment issues. Students earn two credits per semester for this class because it is held every day.

- A successful experience in Life Skills is a prerequisite for the Work Experience class.

#### **Work Experience 10-11-12 (7961-7962)**

This course emphasizes the employment process and the skills needed to maintain successful employment. Employment opportunities, completing applications, resume development, interview skills, and gaining job survival skills are addressed. There are opportunities to explore areas of interest and complete individual projects based on student needs. Students job shadow various businesses in the community of Pike Township for one period each day, three weeks at a job, six times during the year.

## **LIFE SKILLS CURRICULUM**

### **Provided for Individuals with Significant Disabilities**

#### **Reading (7988)**

The content of this class focuses on the progression of reading skills from non-readers through the fourth grade level. The course consists of picture symbols, listening comprehension, essential sight words, and recreational reading.

#### **Community Training (7990)**

The content of this course utilizes places within the community to experience daily living skills. These skills include recreation, grocery shopping, retail buying, pedestrian safety, and transportation. The course uses role playing, in-class and community training, and group activities to reinforce the concepts.

#### **Vocational Skills (7987)**

The content of this class focuses on job-related skills. The course consists of in-school and out-of-school jobs. It is intended to increase interview, social, job, and transportation skills. The focus is to assist in transitioning students from school to work.

#### **Math (7986)**

The content of this class focuses on essential math and money skills used in daily living. Tax charts, calculators, 'subtracting down' method, money recognition, money handling, along with community training are included in the course. In some cases, checking accounts and bill payment may also be included.

#### **Daily Living Skills (7999)**

This course focuses on daily living skills. Cooking, cleaning, personal hygiene, and laundry skills are taught with many hands-on activities and experiences in the community.

**Adaptive Physical Education (7984-7985)**

This course is based upon a case conference decision in conjunction with a referral to the Adaptive Physical Education district instructor. Students who are scheduled for this class have a physical or cognitive disability that limits their success in a general education class.

## **WORLD LANGUAGE**

**Chairperson: Melissa Ziegler, 317-387-2733**

**French 1 -1, 1-2 (3110-3120) Elective 9-10-11-12**

First-year French 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.

- It is highly recommended that a student have a grade of B or higher in English before beginning language study.
- Students must pass semester 1 before continuing with semester 2.
- Core 40 Elective
- AHD course
- Pre-IB course

**French 2-1, 2-2 (3130-3140) Elective 10-11-12**

Second-year French 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.

- Prerequisite: Successful completion of semester 2 of French 1. Students must pass semester 1 of French 2 in order to continue with semester 2.
- It is highly recommended that the student have a grade of C or higher in first-year French before continuing with second-year.
- Core 40 Elective
- AHD course
- Pre IB course

**French 3-1, 3-2 (3150-3160) Elective 11-12**

Third-year French 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.

- Prerequisite: Successful completion of semester 2 of French 2. Students must pass semester 1 of French 3 in order to continue with semester 2.
- It is highly recommended that the student have a grade of C or higher in second-year French before continuing with third-year.
- Core 40 Elective
- AHD course
- Pre-IB course

**French 4-1, 4-2 (3170-3180) Elective 11-12**

Fourth-year French 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.

- Prerequisite: Successful completion of semester 2 French 3. Students must pass semester 1 of French 4 before continuing with semester 2.
- It is highly recommended that the student have a grade of C or higher in third-year French before continuing with fourth-year.
- Core 40 Elective and AHD course
- This course awards a third-level weighted grade
- Pre-IB and IB Course



**French AP / IB Language B, French SL (3190-3200) Elective 12**

This course is based on content established by the College Board and the International Baccalaureate Programme. Emphasizing the use of the French language for active communication, this course has as its objectives the development of Spoken Interpersonal Communication, Written Interpersonal Communication, Audio, Visual, and Audiovisual Interpretive Communication, Written and Print Interpretive Communication, Spoken Presentational Communication, Written Presentational Communication, . Course content might best reflect interests shared by the students and the teacher, e.g. the arts, current events, sports, etc. Students develop language skills that are useful in themselves and can be applied to various activities and disciplines rather than being limited to any specific body of subject matter. Extensive practice in the organization and writing of compositions are emphasized.

- Prerequisite: Successful completion of semester 2 of French 4. Students must pass semester 1 of AP/IB French before continuing with semester 2.
- It is highly recommended that students earn a grade of C or higher in the preceding French courses before taking this level.
- Core 40 Elective
- AHD course
- An AP/IB Course awarding an AP-level weighted grade

**German 1-1, 1-2 (3212-3122) Elective 9-10-11-12**

First-year German 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.

- It is highly recommended that a student have a grade of B or higher in English before beginning language study.
- Students must pass semester 1 before continuing with semester 2.
- Core 40 Elective
- AHD course
- Pre-IB course

**German 2-1, 2-2 (3230-3240) Elective 10-11-12**

Second-year German 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.

- Prerequisite: Successful completion of semester 2 of German 1. Students must pass semester 1 of German 2 in order to continue with semester 2.
- It is highly recommended that the student have a grade of C or higher in first-year German before continuing with second-year.
- Core 40 Elective
- AHD course
- Pre-IB course

**German 3-1, 3-2 (3250-3260) Elective 11-12**

Third-year German 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.

- Prerequisite: Successful completion of semester two of German 2. Students must pass semester one of German 3 in order to continue with semester two.
- It is highly recommended that the student have a grade of C or higher in second-year German before continuing with third-year.
- Core 40 Elective
- AHD course
- Pre-IB course

**German 4-1, 4-2 (3270-3280) Elective 11-12**

Fourth-year German 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.

- Prerequisite: Successful completion of semester two of German 3. Students must pass semester one of German 4 in order to continue with semester two.

- It is highly recommended that the student have a grade of C or higher in third-year German before continuing with fourth-year.
- Core 40 Elective and AHD course
- This course awards a third-level weighted grade
- Pre-IB and IB course

#### **German AP / IB Language B, German SL (3281-3282) Elective 12**

This course is based on content established by the College Board and the International Baccalaureate Programme. Emphasizing the use of the German language for active communication, this course has as its objective the development of Spoken Interpersonal Communication, Written Interpersonal Communication, Audio, Visual, and Audiovisual Interpretive Communication, Written and Print Interpretive Communication, Spoken Presentational Communication, Written Presentational Communication. Course content might best reflect interests shared by the students and the teacher, e.g. the arts, current events, sports, etc. The course seeks to develop language skills that are useful in themselves and that can be applied to various activities and disciplines rather than being limited to any specific body of subject matter. Extensive practice in the organization and writing of compositions should also be emphasized.

- Prerequisite: Successful completion of semester two of German 4. Students must pass semester one of AP/IB German before continuing with semester two.
- It is highly recommended that students earn a grade of C or higher in the preceding German courses before taking this level.
- Core 40 Elective
- AHD course
- An AP/IB Course awarding an AP-level weighted grade

#### **Spanish 1-1, 1-2 (3410-3420) Elective 9-10-11-12**

First-year Spanish 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.

- It is highly recommended that a student have a grade of B or higher in English before beginning language study.
- Students must pass semester 1 before continuing with semester 2.
- Core 40 Elective
- AHD course
- Pre-IB course

#### **Spanish 2-1, 2-2 (3430-3440) Elective 9-10-11-12**

Second-year Spanish 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.

- Prerequisite: Successful completion semester 2 of Spanish 1. Students must pass semester 1 of Spanish 2 in order to continue with semester 2.
- It is highly recommended that the student have a grade of C or higher in first-year Spanish before continuing with second-year.
- Core 40 Elective
- AHD course
- Pre-IB Course

#### **Spanish 3-1, 3-2 (3450-3460) Elective 10-11-12 DC**

Third-year Spanish 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

- Prerequisite: Successful completion of semester 2 of Spanish 2. Students must pass semester 1 of Spanish 3 in order to continue with semester 2.
- It is highly recommended that the student have a grade of C or higher in second-year Spanish before continuing with third-year.
- Core 40 Elective
- AHD course
- Pre-IB course

#### **Spanish 4-1, 4-2 (3470-3480) Elective 11-12 DC**

Fourth-year Spanish provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral information are expanded through emphasis on practicing speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop understanding of Spanish-speaking culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target

culture and the student's own culture. This course further emphasizes making connections across content areas through the design of activities and materials that integrate the target language and culture with concepts and skills from other content areas. The use and influence of the Spanish language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native Spanish speakers.

- Prerequisite: Successful completion of semester 2 of Spanish 3. Students must pass semester 1 of Spanish 4 before continuing with semester 2.
- It is highly recommended that the student have a grade of C or higher in third-year Spanish before continuing with fourth-year.
- Core 40 Elective and AHD course
- This course awards an AP-level weighted grade
- Pre-IB and IB course

#### **Spanish AP / IB Language B, Spanish SL (3490-3500) Elective 12**

This a course based on content established by the College Board and the International Baccalaureate Programme. Emphasizing the use of the Spanish language for active communication, the course has as its objective the development of advanced listening comprehension, reading without the use of a dictionary, expanded conversational skills, fluent and accurate written expression, and strong command of vocabulary and structure of the Spanish language. The course seeks to develop language skills that are useful in themselves and that can be applied to various activities and disciplines rather than being limited to any specific body of subject matter. Extensive practice in the organization and writing of compositions will also be emphasized.

- Prerequisite: Successful completion of semester 2 of Spanish 4. Students must pass semester 1 of AP/IB Spanish before continuing with semester 2.
- It is highly recommended that students earn a grade of C or higher in the preceding Spanish courses before taking this level.
- Core 40 Elective
- AHD course
- An IB course awarding an AP-level weighted grade

### **MULTI-DISCIPLINARY COURSE OFFERINGS**

#### **Work Based Learning Capstone, Multiple Pathways (Internship Program) (9908-9909—3 credits; 9912-9913—2 credits) Elective 11, 12**

This course is designed for the senior student seeking an experiential learning opportunity in a specific career field. Students are released from school two or three periods each day. A related classroom experience is also provided. The goal of the program is to provide work related experiences for both those students who are going on to college or other post-secondary institutions and for those students seeking employment directly after high school graduation. Completion of a portfolio is required.

- Enrollment by application and instructor approval only.
- A minimum of **2.5 GPA** is required.
- Students must have transportation.
- Up to three credits per semester, students must work a minimum of 12-18 hours per week depending on the number of released periods. Some employers require students to work approximately 20 hours per week.

#### **Cadet Teaching Experience (7410-7420—2 credits; 7411-7421—1 credit) Elective 12**

This elective course provides students in Grade 12 organized exploratory teaching experience in Grades K-8. Students also participate in meaningful classroom projects. School principals along with the cadet teaching coordinator plan the placement of the cadet teacher. The cadet teacher is responsible for providing daily transportation to the assigned school.

- Enrollment by application and instructor approval.
- A minimum **2.5 GPA** is required.
- May be taken for 1 or 2 semesters for 1 or 2 periods; 1 credit per period per semester.
- Students report daily to their assigned school.
- Students must provide their own transportation.

#### **Ivy Tech College Readiness Course (CRC)—semester 1; IVYT 111 New Student Seminar, semester 2, DC**

This Ivy Tech College Readiness program is a year-long course designed to assist and support high school students in becoming academically ready for college and developmentally prepared for the rigors of college life and the culture of college success. It is an introductory basic skills college course using the same syllabus as that used on campus. Students earn one high school credit per semester for the course. The goal of the program is for students to be admitted to Ivy Tech without the qualifier of having to enroll in remedial courses but rather begin earning credit that leads to degree completion during their first semester of enrollment in college.

- Two-semester course; Ivy Tech College Readiness Course is a prerequisite for IVYT 111
- Semester two is an IVY Tech course with one Ivy Tech credit hour attained upon successful completion
- GPA 2.1 is required
- 11<sup>th</sup> and 12<sup>th</sup> grade course

## **Pike Career and STEM Center**

### **Cluster – Advanced Manufacturing**

#### **Pathway: Smart Manufacturing (6 Cr. – Concentrator)**

##### **Principles of Industry 4.0 - Smart Manufacturing 4025-4026**

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 or 10
- Required 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

### **Cluster – Advanced Manufacturing**

#### **Pathway: Industrial Automation and Robotics (6 Cr. – Concentrator)**

##### **Principles of Industry and Robotics 4025-4026**

Principles of Industry and Robotics 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.

- Required Prerequisites: Must be taken concurrently with
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

##### **Robotics Design and Innovation 4027A-4028A**

Robotics Design and Innovation 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): 11 or 12
- Required Prerequisites: Must be taken concurrently with Smart Manufacturing Systems
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

##### **Smart Manufacturing Systems 4027B-4028B**

Smart Manufacturing 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): 11 or 12
- Required Prerequisites: Must be taken concurrently with Robotics Design and Innovation
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

### **Cluster – Architecture and Construction**

#### **Pathway: Heating, Ventilating, and Air Conditioning (6 Cr. – Concentrator)**

##### **Principles of Heating, Ventilation, and Air Conditioning (HVAC) 8150A-8151A**

Principles of Heating, Ventilation and Air Conditioning (HVAC) covers many of the topics needed for students to be successful in the mechanical construction industry. Its modules include history of HVAC industry, OSHA 10-hour construction industry training, communication and customer service skills. This course will also cover basic electricity concepts.

- Recommended Grade(s): 11 or 12
- Required Prerequisites: Must be taken concurrently with HVAC Fundamentals and HVAC service
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

##### **HVAC Fundamentals 8150B-8151B**

HVAC Fundamentals introduces fundamentals applicable to the heating and refrigeration phases of air conditioning. Includes types of units, parts, basic controls, functions, and applications. Emphasizes practices, tool and meter use, temperature measurement, heat flow, the combustion process and piping installation practices. Covers the basic sequence of operation for gas, oil and electric furnaces. Introduction to compression systems used in mechanical refrigeration including the refrigeration cycle and system components. Introduces safety procedures, proper use of tools used to install and service refrigeration equipment, refrigerant charging

and recovery, system evacuation, calculating superheat and subcooling and using a refrigerant temperature/pressure chart. This course will use lecture, lab and online simulation to prepare students for the nationally recognized certification exam as part of the outcome assessment learning objectives.

- Recommended Grade(s): 11 or 12
- Required Prerequisites: Must be taken concurrently with Principles of HVAC and HVAC Services
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

#### **HVAC Service 8150C-8151C**

HVAC Service continues the study of air conditioning and refrigeration along with the procedures used to analyze mechanical and electrical problems encountered when servicing heating systems. Students will better understand compressors, metering devices, system recharging, refrigerant recovery, basics of motor types, equipment installation and troubleshooting practices as they apply to air conditioning and refrigeration systems. Additionally, students will be able to understand electrical schematics and connection diagrams, combustion testing, venting and combustion air requirements, sequence of operation, heating controls, troubleshooting techniques, installation practices, basic codes applying to furnace codes, and service procedures. This course will use lecture, lab and online simulation to prepare students for the nationally recognized certification exam as part of the outcome assessment learning objectives.

- Recommended Grade(s): 11 or 12
- Required Prerequisites: Must be taken concurrently with Principles of HVAC and HVAC 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

#### **HVAC Capstone (Optional) 8152-8153**

The HVAC Capstone course covers procedures used to analyze mechanical and electrical problems encountered when servicing heating systems. Topics include electrical schematics and connection diagrams, combustion testing, venting and combustion air requirements, sequence of operation, heating controls, troubleshooting techniques, installation practices, basic codes applying to furnace codes, and service procedures. Students may also have the opportunity to gain an understanding of Heat Pump Systems or to develop skills needed to fabricate and install duct work. This course will use lecture, lab and online simulation to prepare students for the nationally recognized certification exam as part of the outcome assessment learning objectives. As a capstone course, students participate in an intensive, embedded work-based learning (internship) experience.

- Recommended Grade(s): 12
- Required Prerequisites: Principles of HVAC; HVAC Fundamentals; HVAC Service
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

### **Cluster – Arts, AV Tech and Communications**

#### **Pathway: Radio and Television Broadcasting (6 Cr. – Concentrator)**

#### **Principles of Broadcasting 9974-9975**

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 or 10
- Required 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

#### **Audio and Video Production Essentials 9977A-9978A**

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 or 11 or 12
- Required Prerequisites: Principles of Broadcasting and must be taken concurrently with Mass Media Production
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

#### **Mass Media Production 9977B-9978B**

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 or 11 or 12
- Required Prerequisites: Principles of Broadcasting and must be taken concurrently with Audio and Video Production Essentials
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

#### **Radio & TV Broadcasting Capstone (Optional) 9982-9983**

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 (RDTV).

- Recommended Grade(s): 11 or 12
- Required Prerequisites: Principles of Broadcasting; Audio and Video Production Essentials; Mass Media

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

#### **Cluster – Health Sciences**

##### **Pathway: Emergency Medical Services (10 Cr. – Concentrator)**

#### **Principles of Healthcare 8106A-8108A**

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): 10 or 11
- Required Prerequisites: Must be taken concurrently with Medical Terminology
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

#### **Medical Terminology 8106B-8108B**

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): 10 or 11
- Required Prerequisites: Must be taken concurrently with Principles of Healthcare
- 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

#### **Emergency Medical Tech 8102A-8104A**

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): 12
- Required Prerequisites: Principles of Healthcare; and Medical Terminology. Must be taken concurrently with Healthcare Specialist Capstone
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

#### **Healthcare Specialist: EMT Capstone 8102B-8104B**

Successful completion of the course meets national requirements to test for certification as an NREMT. As a capstone course, students participate in clinical experiences.

- Recommended Grade(s): 12
- Required Prerequisites: Principles of Healthcare; Medical Terminology. Must be taken concurrently with Emergency Medical Tech.
- Credits: 2 semester course, 2 semesters required, 2 credits per semester, 4 credits max
- Counts as a Directed Elective or Elective for all diplomas

#### **Cluster – Health Sciences**

##### **Pathway: Medical Assistant (10 Cr. – Concentrator)**

#### **Principles of Healthcare 8106A-8108A**

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): 10 or 11
- Required Prerequisites: Must be taken concurrently with Medical Terminology
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

#### **Medical Terminology 8106B-8108B**

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): 10 or 11
- Required Prerequisites: Must be taken concurrently with Principles of Healthcare
- 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

#### **Certified Clinical Medical Assistant (CCMA) 1817A-1819A**

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 specimen

and basic laboratory test 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): 11 or 12
- Required Prerequisites: Principles of Healthcare; Medical Terminology; Must be taken concurrently with Healthcare Specialist: Medical Assistant Capstone
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

#### **Healthcare Specialist: Medical Assistant Capstone 1817B-1819B**

As a capstone course, students participate in an intensive, embedded work-based learning (internship) experience.

- Recommended Grade(s): 11 or 12
- Required Prerequisites: Principles of Healthcare; Medical Terminology; Must be taken concurrently with Certified Clinical Medical Assistant
- Credits: 2 semester course, 2 semesters required, 2 credit per semester, 4 credits max
- Counts as a Directed Elective or Elective for all diplomas

#### **Cluster – Health Sciences**

##### **Pathway: Pre-Nursing (10 Cr. – Concentrator)**

#### **Principles of Healthcare 8106A-8108A**

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): 10 or 11
- Required Prerequisites: Must be taken concurrently with Medical Terminology
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

#### **Medical Terminology 8106B-8108B**

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): 10 or 11
- Required Prerequisites: Must be taken concurrently with Principles of Healthcare
- 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

#### **Healthcare Specialist: CNA 8113A-8114A (AM), 8115A-8116A (PM)**

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.

- Recommended Grade(s): 11 or 12
- Required Prerequisites: Principles of Healthcare; Medical Terminology. Must be taken concurrently with Healthcare Specialist Capstone
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

#### **Healthcare Specialist: CNA Capstone 8113B-8114B (AM), 8115B-8116B (PM)**

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): 11 or 12
- Required Prerequisites: Principles of Healthcare; Medical Terminology. Must be taken concurrently with Healthcare Specialist: CNA.
- Credits: 2 semester course, 2 semesters required, 2 credits per semester, 4 credits max
- Counts as a Directed Elective or Elective for all diplomas

#### **Cluster – Health Sciences**

##### **Pathway: Pharmacy (10 Cr. – Concentrator)**

#### **Principles of Healthcare 8106A-8108A**

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): 10 or 11
- Required Prerequisites: Must be taken concurrently with Medical Terminology
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

#### **Medical Terminology 8106B-8108B**

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): 10 or 11
- Required Prerequisites: Must be taken concurrently with Principles of Healthcare
- 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

#### **Pharmacy Tech 8228-8229**

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): 12
- Required Prerequisites: Principles of Healthcare; Medical Terminology. Must be taken concurrently with Pharmacy Capstone
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

#### **Pharmacy Capstone 8228B-8229B**

The Pharmacy Capstone courses build 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): 12
- Required Prerequisites: Principles of Healthcare; Medical Terminology; Must be taken concurrently with Pharmacy Tech
- Credits: 2 semester course, 2 semesters required, 2 credits per semester, 4 credits maximum
- Counts as a directed elective or elective for all diplomas

#### **Cluster – Hospitality and Tourism**

##### **Pathway: Culinary Arts (10 Cr. – Concentrator)**

#### **Principles of Culinary and Hospitality 8187A-8188A**

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): 10 or 11
- Required Prerequisites: Must be taken concurrently with Nutrition
- Recommended Prerequisites: Nutrition and Wellness (FACS Dept.)
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

#### **Nutrition 8187B-8188B**

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 or 11
- Required Prerequisites: Must be taken concurrently with Principles of Culinary and Hospitality
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

#### **Culinary Arts 8189A-8190A**

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): 11 or 12
- Required Prerequisites: Principles of Culinary and Hospitality; Nutrition. Must be taken concurrently with Culinary Arts and Capstone
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

#### **Culinary Arts Capstone 8189B-8190B**

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. Students will actually manage and cook for a restaurant (Red Zone Café).

- Recommended Grade(s): 11 or 12
- Required Prerequisites: Principles of Culinary and Hospitality; Nutrition; Must be taken concurrently with Culinary Arts



- Credits: 2 semester course, 2 semesters required, 2 credits per semester, 4 credits max
- Counts as a Directed Elective or Elective for all diplomas

#### **Cluster – Human Services**

##### **Pathway: Barbering (14 Cr. – Concentrator)**

#### **Principles of Barbering and Cosmetology 8213A-8214A**

Principles of Barbering and Cosmetology offers an introduction and 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): 11
- Required Prerequisites: Must be taken concurrently with Barbering and Cosmetology Fundamentals, Advanced Barbering, and WBL Barbering
- 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.

#### **Barbering and Cosmetology Fundamentals 8213B-8214B**

Barbering and Cosmetology Fundamentals focuses on the development of practical skills introduced in Principles of Barbering and Cosmetology. Clinical application and theory in the science of cosmetology are introduced. Successful completion of the course requires at least 375 Cosmetology studio hours.

- Recommended Grade(s): 11
- Required Prerequisites: Must be taken concurrently with Principles of Barbering and Cosmetology, Advanced Barbering, and WBL Barbering
- 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.

#### **Advanced Barbering 8123C-8124C**

Advanced Barbering is a course with a focus 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): 11
- Required Prerequisites: Must be taken concurrently with Principles of Barbering and Cosmetology, Barbering and Cosmetology Fundamentals, and WBL Barbering
- 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.

#### **Work Based Learning Barbering or Cosmetology 8213D-8214D**

Practical experience in Barbering or Cosmetology is provided.

- Recommended Grade(s): 11
- Required Prerequisites: Must be concurrently taken with Principles of Barbering and Cosmetology, Barbering and Cosmetology Fundamentals, and Advanced Barbering or Advanced Cosmetology.
- Credits: 1 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

#### **Barbering and Cosmetology Capstone 8217-8218**

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): 12
- Required Prerequisites: Principles of Barbering and Cosmetology; Barbering and Cosmetology Fundamentals; Advanced Cosmetology or Advanced Barbering
- Credits: 2 semester course, 2 semesters required, 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.

#### **Cluster – Human Services**

##### **Pathway: Cosmetology (14 Cr. – Concentrator)**

#### **Principles of Barbering and Cosmetology 8157A-8158A**

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): 11
- Required Prerequisites: Must be taken concurrently with Barbering and Cosmetology Fundamentals, Advanced Cosmetology, and WBL Cosmetology
- 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.

### **Barbering and Cosmetology Fundamentals 8157B-8158B**

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): 11
- Required Prerequisites: Must be taken concurrently with Principles of Barbering and Cosmetology, Advanced Barbering, and WBL Cosmetology
- 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.

### **Advanced Cosmetology 8157C-8158C**

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): 11
- Required Prerequisites: Must be taken concurrently with Principles of Barbering and Cosmetology; Barbering and Cosmetology Fundamentals; and WBL Cosmetology
- 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.

### **Work Based Learning Barbering or Cosmetology 8157D-8158D**

Practical experience in Barbering or Cosmetology is provided.

- Recommended Grade(s): 11
- Required Prerequisites: Must be concurrently taken with Principles of Barbering and Cosmetology, Barbering and Cosmetology Fundamentals, and Advanced Barbering or Advanced Cosmetology.
- Credits: 1 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

### **Barbering and Cosmetology Capstone 8163-8164**

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): 12
- Required Prerequisites: Principles of Barbering and Cosmetology; Barbering and Cosmetology Fundamentals; Advanced Cosmetology or Advanced Barbering
- Credits: 2 semester course, 2 semesters required, 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.

## **Cluster – Information Tech**

### **Pathway: Information Technology Operations (6 Cr. – Concentrator)**

#### **Principles of Computing 1951-1961**

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 or 10 or 11
- Required 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

#### **Information Technology Fundamentals 1930A-1931A**

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): 11 or 12
- Required Prerequisites: Principles of Computing; Must be concurrently taken with Networking and Cybersecurity Operations
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

#### **Networking and Cybersecurity Operations 1930B-1931B**

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): 11 or 12

- Required Prerequisites: Principles of Computing; Must be concurrently taken with Information Technology 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

#### **IT Operations: Cybersecurity Operations Capstone (Optional) 1948-1949**

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. Practical experience is provided.

- Recommended Grade(s): 12

- Required Prerequisites: Principles of Computing; Information Technology Fundamentals; Networking and Cybersecurity Operations

- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum

- Counts as a Directed Elective or Elective for all diplomas

#### **IT Operations: Cloud and Server Operations Capstone (Optional) 1942-1943**

Cloud and Server Operations Capstone provides students with the general understanding of cloud computing concepts through a detailed overview of core services security architecture, pricing and support. Students will also learn to implement, administer, and troubleshoot Information systems using the Microsoft Windows clients and servers in an enterprise environment. Students will be introduced to managing applications, files, folders, and devices in a Windows active directory environment. Additionally, students have the chance to understand and apply Linux and Virtualization concepts. Practical experience is provided.

- Recommended Grade(s): 12

- Required Prerequisites: Principles of Computing; Information Technology Fundamentals; Networking and Cybersecurity Operations

- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum

- Counts as a Directed Elective or Elective for all diplomas

#### **IT Operations: IT Support Capstone (Optional) 1936-1937**

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. Practical experience is provided.

- Recommended Grade(s): 12

- Required Prerequisites: Principles of Computing; Information Technology Fundamentals; Networking and Cybersecurity Operations

- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum

- Counts as a Directed Elective or Elective for all diplomas

### **Cluster – Law, Public Safety, Corrections, and Security**

#### **Pathway: Criminal Justice (6 Cr. – Concentrator)**

##### **Principles of Criminal Justice 8177A-8178A**

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): 11 or 12

- Required Prerequisites: Must be taken concurrently with Law Enforcement Fundamentals and Corrections and Cultural Awareness

- 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 Enforcement Fundamentals 8177B-8178B**

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): 11 or 12

- Required Prerequisites: Must be taken concurrently with Principles of Criminal Justice and Corrections and Cultural Awareness

- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum

- Counts as a directed elective or elective for all diplomas

##### **Corrections and Cultural Awareness 8177C-8178C**

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): 11 or 12

- Required Prerequisites: Must be taken concurrently with Principles of Criminal Justice and Law Enforcement 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

### **Criminal Justice Capstone (Optional) 8179-8180**

The Criminal Justice Capstone course allows students to complete additional instruction to earn a postsecondary certificate and includes a work-based learning component such as an internship.

Note that there may be age restrictions on work-based learning components.

- Recommended Grade(s): 12

- Required Prerequisites: Principles of Criminal Justice; Law Enforcement Fundamentals, Corrections and Cultural Awareness

- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits max

- Counts as a Directed Elective or Elective for all diplomas

### **Off Site Courses:**

#### **Cluster – Transportation, Distribution, and Logistics**

##### **Pathway: Automotive Services**

**Note: This program is offered through IVY Tech at the Automotive Service Building in Pike Township and requires a tuition fee to be determined. The student will have to provide his/her own transportation.**

##### **Principles of Automotive Services**

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): 11 or 12

- Required Prerequisites: Must be taken concurrently with Brake Systems and Steering/Suspensions

- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum

- Counts as a directed elective or elective for all diplomas

##### **Brake Systems**

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): 11 or 12

- Required Prerequisites: Must be taken concurrently with Principles of Automotive Services and Steering/Suspensions

- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum

- Counts as a directed elective or elective for all diplomas

##### **Steering and Suspensions**

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): 11 or 12

- Required Prerequisites: Must be taken concurrently with Principles of Automotive Services and Brake Systems

- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum

- Counts as a directed elective or elective for all diplomas

##### **Automotive Service Capstone (Optional)**

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, internship opportunities will be available for students.

- Recommended Grade(s): 12

- Required Prerequisites: Principles of Automotive Services; Brake Systems; Steering and Suspensions

- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits max

- Counts as a Directed Elective or Elective for all diplomas

#### **Cluster – Transportation, Distribution, and Logistics**

##### **Pathway: Aviation Management (6 Cr. – Concentrator)**

**Note: This program is offered through Vincennes University at the Indianapolis Airport and requires a tuition fee to be determined. The student will have to provide his/her own transportation.**

##### **Principles of Aviation Management**

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): 11 or 12

- Required Prerequisites: Must be taken concurrently with Private Pilot Theory, Aviation Safety and Operations

- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum

- Counts as a directed elective or elective for all diplomas

### **Private Pilot Theory**

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): 11 or 12

- Required Prerequisites: Must be taken concurrently with Principles of Aviation Management and Aviation Safety/Operations

- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum

- Counts as a directed elective or elective for all diplomas

### **Aviation Safety and Operations**

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): 11 or 12

- Required Prerequisites: This course must be taken concurrently with Principles of Aviation Management and Private Pilot Theory

- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum

- Counts as a directed elective or elective for all diplomas

### **Aviation Management Capstone (Optional)**

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): 12

- Required Prerequisites: Principles of Aviation Management; Private Pilot Theory; Aviation Safety and Operations

- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits max

- Counts as a Directed Elective or Elective for all diplomas

### **Cluster – Advanced Manufacturing**

#### **Pathway: Precision Machining (6 Cr. – Concentrator)**

**Note: This program is offered through Vincennes University at the Lebanon location and requires a tuition fee to be determined. Student will have to provide his/her own transportation.**

### **Principles of Precision Machining**

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): 11 or 12

- Required Prerequisites: Must be taken concurrently with Precision Machining Fundamentals and Advanced Precision Machining

- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum

- Counts as a directed elective or elective for all diplomas

### **Precision Machining Fundamentals**

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): 11 or 12

- Required Prerequisites: Must be taken concurrently with Principles of Precision Machining and Advanced Precision Machining

- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum

- Counts as a directed elective or elective for all diplomas

### **Advanced Precision Machining**

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. 9

- Recommended Grade(s): 11 or 12

- Required Prerequisites: Must be taken concurrently with Principles of Precision Machining and Precision Machining 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

### **Precision Machining Capstone (Optional)**

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): 12
- Required Prerequisites: Principles of Precision Machining; Precision Machining Fundamentals; Advanced Precision Machining
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

## **ON-SITE COURSES NOT OFFERED AS A PATHWAY**

### **Underground Utility Locating Services 8148-8149 (PILOT)**

Underground Utility Locating Services is a course that will offer hands-on activities and real-world experiences related to the skills essential in locating underground utilities. Students will be introduced to the history and traditions of utility types, installation methods and the theory of electromagnetic locating. They will also learn and apply knowledge of safe work techniques and industry-best practices. In addition, students are introduced to blueprint reading, electrical theory principles, locating equipment use and job site safety. Students will learn how to locating underground utilities is necessary in the excavation and construction industry not only to keep excavators and homeowners safe while digging, but also prevent the disruption of vital utility services such as electric, gas, phone, cable, and fiber optics. Upon successful completion of this course, students will have the skills and hands-on experience required to enter the Utility Locating industry. Students will also complete the requirements needed to obtain OSHA 10-hour card for general industry.

- Recommended Grade(s): 12
- Required Prerequisites: None
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

## **COURSE FEES**

Course fees listed on the Pike High School website are the most current fees, but are subject to change. Fees can be calculated by finding the course number and title and then the fee listed for each in the rental fee column.

