

# Columbus East High School

## 2012 - 2013 Curriculum Guide

Columbus East High School  
230 South Marr Road  
Columbus, Indiana 47201  
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#### ADMINISTRATION

Bartholomew Consolidated School Corporation  
Superintendent, Dr. John Quick

#### COLUMBUS EAST SENIOR HIGH SCHOOL

Principal, Mark Newell  
Assistant Principal, Charles Edwards

#### ACCREDITATION

Columbus East High School holds a First Class Commission issued by the Indiana State Department of Public Instruction for the State Board of Education. East has completed its requirements for certification as a model Senior Project School through the Partnership for Dynamic Learning.

#### CURRICULUM AT CEHS

Columbus East High School provides a curriculum to meet the needs of 1600 students with varied abilities, experiences, and goals. The core of the curriculum is made up of the subjects required for high school graduation: English, Math, Science, Social Studies, Health and Physical Education. In addition, CEHS offers more than 150 electives in 13 subject areas.

#### THE DAY'S SCHEDULE

Columbus East High School offers expanded academic opportunities for students because of its unique features in scheduling. Perhaps the most unique feature of the East program is the use of resource centers in place of the traditional study hall. Each department maintains a supervised resource area where students may go for help from a teacher of the subject matter. During the time when a student in a more traditional high school would be assigned to a study hall, an East student may choose the particular resource area appropriate for his study needs and report there. A student may also utilize the resource time by using the library, seeing the counselors, or reporting for make-up work from absences.

At East, a student's daily schedule consists of eight forty-five minute instructional periods, called modules, and one lunch period. Most East students take six courses and two resource modules per day. With proper planning a student wanting to take a more challenging program may enroll in more than six classes. Some students may need a reduced course load and therefore are allowed to take only five classes. For advanced students East also offers opportunities for independent study under the supervision of a classroom teacher.

Another noteworthy feature of the East schedule is the use of large group/small group instruction.

In certain courses classes are brought together one of every three days in a large lecture room for activities such as test taking, lectures, and video presentations.

On two days the students meet in small classrooms for discussion and more individualized instruction. A Day 1, Day 2, and Day 3 designated on a student's schedule accommodate the arrangement.

#### COUNSELORS:

Dr. Douglas Moore, Director of Guidance..... 376-4360  
Monica Anderson ..... 376-4498  
Rochelle House ..... 376-4363  
Emily Zumbaugh ..... 376-4359

#### GUIDANCE SERVICES

Columbus East Guidance Department offers counseling and consultation services to students, parents, and teachers. The guidance department strongly encourages the use of these services as the student develops academically, personally and in their career path.

#### INDIVIDUAL COUNSELING

Experienced licensed counselors are available every school day for personal, academic, and career counseling. Strict confidentiality is maintained.

#### GROUP COUNSELING

Counselors work with selected students in small groups focusing on grief/loss, anger management, study skills, and other issues requested by students.

#### INFORMATION SERVICES

The guidance department maintains a resource area of colleges, careers, and financial aid for student and parent use. Students are encouraged to use computerized information systems that are available through the website [www.LearnMoreIndiana.org](http://www.LearnMoreIndiana.org), Naviance, or the guidance section of the Columbus East homepage at [www.bsc.k12.in.us/easths](http://www.bsc.k12.in.us/easths).

Parents may also see their child's school information by enrolling in "Parent Portal" through the superintendent's office. "Parent Portal" is accessed through the corporation homepage at [www.bsc.k12.in.us](http://www.bsc.k12.in.us).

#### FINANCIAL AID

The guidance department maintains and distributes information on current financial aid available in the form of scholarships, grants, and loans for post-secondary education through printed materials, email, Facebook, and the guidance website. An evening program on financial aid is conducted in December.

#### PARENT CONSULTATIONS

Parents are encouraged to see counselors at any time during the school day; for the convenience of working parents, early or late appointments are available upon request.



**SCHEDULING AND ENROLLMENT**

The guidance department assists new students in enrolling at East High School. The office also aids present students in developing and maintaining an appropriate high school schedule to provide a foundation for future career goals.

**REFERRAL SERVICES**

The guidance department works with teachers, parents, and students to help students with special needs by referring them for appropriate programs or suitable agencies.

**STANDARDIZED TESTING**

The guidance department provides registration materials and administers standardized tests for college admission, academic achievement and course preparation.

**TRANSFERS**

A transfer request between the two high schools, East and North, may be initiated by filling the transfer request form at the school in the attendance area in which the student resides (school of residence). The deadline for submitting the completed transfer request form is March 15. Persons who move into the school corporation after said date who wish to apply for a transfer must do so with the resident school prior to student enrollment.

**CONVERSION OF GRADE POINT AVERAGES FROM 12.0 SCALE TO 4.0 SCALE**

A+	4.33	B-		D+	
		7.9	2.97	3.9	1.63
A		7.8	2.93	3.8	1.60
11.9	4.30	7.7	2.90	3.7	1.57
11.8	4.27	7.6	2.87	3.6	1.53
11.7	4.23	7.5	2.83	3.5	1.50
11.6	4.20	7.4	2.80	3.4	1.47
11.5	4.17	7.3	2.77	3.3	1.43
11.4	4.13	7.2	2.73	3.2	1.40
11.3	4.10	7.1	2.70	3.1	1.37
11.2	4.07	7.0	2.67	3.0	1.33
11.1	4.03				
11.0	4.00	C+		D	
		6.9	2.63	2.9	1.30
A-		6.8	2.06	2.8	1.27
10.9	3.97	6.7	2.57	2.7	1.23
10.8	3.93	6.6	2.53	2.6	1.20
10.7	3.90	6.5	2.50	2.5	1.17
10.6	3.87	6.4	2.47	2.4	1.13
10.5	3.83	6.3	2.43	2.3	1.10
10.4	3.80	6.2	2.40	2.2	1.07
10.3	3.77	6.1	2.37	2.1	1.03
10.2	3.73	6.0	2.33	2.0	1.00
10.1	3.70				
10.0	3.67	C		D-	
		5.9	2.30	1.9	0.97
B+		5.8	2.27	1.8	0.93
9.9	3.63	5.7	2.23	1.7	0.90
9.8	3.60	5.6	2.20	1.6	0.87
9.7	3.57	5.5	2.17	1.5	0.83
9.6	3.53	5.4	2.13	1.4	0.80
9.5	3.50	5.3	2.10	1.3	0.77
9.4	3.47	5.2	2.07	1.2	0.73
9.3	3.43	5.1	2.03	1.1	0.70
9.2	3.40	5.0	2.00		
9.1	3.37			F	
9.0	3.33	C-		1.0	0.67
		4.9	1.97	0.9	0.60
B		4.8	1.93	0.8	0.53
8.9	3.30	4.7	1.90	0.7	0.47
8.8	3.27	4.6	1.87	0.6	0.40
8.7	3.23	4.5	1.83	0.5	0.33
8.6	3.20	4.4	1.80	0.4	0.27
8.5	3.17	4.3	1.77	0.3	0.20
8.4	3.13	4.2	1.73	0.2	0.13
8.3	3.10	4.1	1.70	0.1	0.07
8.2	3.07	4.0	1.67		
8.1	3.03				
8.0	3.00				

**GRADING SCALE**

CEHS operates on a 12-point scale. For a better comparison, this is a graph of the conversion between the current CEHS scale and a 4-point scale used by other corporations and universities.

Athletic/Academic Eligibility Requirements for College-Bound Athletes

Prospective collegiate student-athletes who plan to participate in athletics at an NCAA Division I or Division II school must have academic and amateurism status certified by the NCAA.

**NCAA CLEARINGHOUSE**

All prospective collegiate student-athletes must register with the NCAA Initial Eligibility Clearinghouse at [www.eligibilitycenter.org](http://www.eligibilitycenter.org). Interested students may register as early as the junior year in high school. Current cost to register is \$60. Fee waivers are available for students who are economically eligible.

**NCAA DIVISION I ACADEMIC ELIGIBILITY**

Prospective student-athletes who enroll in a Division I college, and want to participate in athletics or receive an athletic scholarship, will have NCAA initial eligibility evaluated according to the 16 core-course rule. The student-athlete must:

- \* Graduate from high school;
- \* Complete the 16 core courses:
- \* 4 years of English.
- \* 2 years of natural/physical science
- \* 2 years Social Science
- \* 3 years of math (Algebra I or higher)
- \* 1 year of additional English, math, or natural/physical science
- \* 4 years of additional courses (from any area above, foreign language, non-doctrinal religion or philosophy)
- \* Present a minimum required grade-point average (based upon a 4.0 scale) in these 16 core courses; and
- \* Achieve a combined SAT or ACT sum score that matches your core-course grade-point-average according to the GPA/Test Score Sliding Scale that follows.

**NCAA APPROVED CORE COURSES**

A core course must:

- \* Be an academic course in one or a combination of these areas: English, mathematics, natural/physical science, social science, foreign language, non-doctrinal religion or philosophy;
- \* Be four-year college preparatory; and
- \* Be at or above your high school's regular academic level

Not all classes you take to meet high school graduation requirements may be used as core courses. Check East High School's list of approved courses at the NCAA Clearinghouse Website at [www.ncaaclearinghouse.net](http://www.ncaaclearinghouse.net) or pick up a copy in the East High School Guidance Office.

**GPA AND TEST SCORE SLIDING SCALE**  
In order to become academically certified by the NCAA, a prospective student-athlete must earn a combined SAT or ACT sum score that matches his or her core-course grade point average and test score sliding scale. For example, a 2.40 core-course grade-point average needs an 860 SAT. Test score totals will be calculated using the math and critical reading subsections of the SAT or the math, science, English and reading subsections of the ACT. The writing component of the ACT or SAT will not be used to determine qualifier status.

**DIVISION 1 CORE GPA AND TEST SCORE SLIDING SCALE**

Core GPA- 12.0 scale	Core GPA- 4.0 scale	SAT	ACT
9.5	3.5	420	39
9.2	3.4	460	42
8.9	3.3	500	44
8.6	3.2	540	47
8.3	3.1	580	49
8.0	3.0	620	52
7.7	2.9	660	54
7.4	2.8	700	57
7.1	2.7	730	60
6.8	2.6	780	64
6.5	2.5	820	68
6.2	2.4	860	71
5.9	2.3	900	75
5.6	2.2	940	79
5.3	2.1	970	82
5.0	2.0	1010	86

For the complete GPA and Test Score Sliding Scale, visit the NCAA Clearinghouse Web site or pick up a copy in the East High School Guidance Office.

**DIVISION II COLLEGIATE ATHLETE ELIGIBILITY**

**PROSPECTIVE STUDENT-ATHLETES WHO ENROLL IN A DIVISION II COLLEGE AND WANT TO PARTICIPATE IN ATHLETICS OR RECEIVE AN ATHLETIC SCHOLARSHIP, WILL HAVE INITIAL ELIGIBILITY EVALUATED ACCORDING TO THE 14 CORE-COURSE RULE.**

The student-athlete must:

- \* Graduate from high school;
- \* Complete the 14 core courses:
- \* 3 years of English.
- \* 2 years of natural/physical science
- \* 2 years Social Science
- \* 2 years of math (Algebra I or higher)
- \* 2 years of additional English, math, or natural/physical science
- \* 3 years of additional courses (from any area above, foreign language, non-doctrinal religion or philosophy)
- \* Earn a 2.0 grade-point average or better in your core courses; and
- \* Earn a combined SAT score of 820 or an ACT sum score of 68. There is no sliding scale in Division II.

**DIVISION III ATHLETIC ELIGIBILITY**

Division III does not use the NCAA Initial-Eligibility Clearinghouse. Contact the Division III College regarding its policies on eligibility and financial aid.

**SPECIAL PROGRAMS AT CEHS**

**DUAL CREDIT OPTIONS**

With residential college costs continuing to rise (families can expect to pay around \$18,000-\$22,000/year at state schools, and from \$30,000-\$55,000 for private schools) in the state of Indiana, it is of some interest to look at ways to cut expenses. At Columbus East seniors (and some juniors) have opportunities to earn college credit early that can begin to ease an ever increasing financial obligation. The following are some ways our students can earn early college credits.

- \* Advanced Placement (AP): students can earn college credit by scoring well enough on the AP exams in May of the year. The normal protocol is for a student to take one or more of our 12 AP courses. Costs are \$87/test.
- \* College Level Examination Program (CLEP): Students may test out of various college "general education courses." Ivy Tech Columbus is a testing center. Students should check with the universities they are considering attending to see if they accept CLEP credit from secondary students. Costs are about \$77/test.
- \* Advanced College Project: students possessing a 2.7 GPA on a college preparatory curriculum (on a 4.0 scale) can earn "dual credit" from East and Indiana University by taking English, Math, Psychology, or Science courses and paying the university tuition, which is \$25 per semester credit hour. Students must earn a "C" or better for the credit to count. These credits usually transfer to most colleges. Students should research this prior to enrolling.
- \* Early College: Students may arrange to take an off-campus course at Ivy Tech or IUPUC which can count in their general studies curriculum at the university they choose to attend. This would primarily count at the state institutions in Indiana. Costs would be the normal tuition charge per college class.
- \* University Placement Exams: Students take placement exams during orientation at the university they will attend in various academic disciplines. Students may "test out" of lower levels of these disciplines.
- \* Online courses: There are limited numbers of online dual credit courses through universities that may enable students to earn credits. These will have similar tuition fees to other university courses.
- \* Many C4 classes also offer dual credit opportunities through Vincennes University and Ivy Tech. For detailed information see your instructor.

**SPECIAL EDUCATION**

Special education is a program of study and resource assistance designed to meet the special challenges of students with disabilities. Students are annually case-conferenced into classes, which provide the least restrictive educational environment.

**SCHOOL TO WORK OPPORTUNITIES**

Many opportunities exist within the school for students to explore the world of work. Area businesses and industries provide work-based skill development for both college prep and tech prep students. Students may be



placed with area employers for training, internships, job shadowing, or co-op experiences. Students interested in participating in any of these opportunities should contact his/her high school counselor or teacher.

### ARTICULATION

Articulation is defined as the linking of two or more educational systems to help students make a smooth transition from one level to another without experiencing delays, duplication, or lost credit. C4 Columbus Area Career Connection has worked extensively on a multi level system of articulation with partnering post-secondary institutions: IUPUI Columbus, Ivy Tech College, Columbus, and Purdue Statewide College of Technology. Three levels of articulation have been developed. They are - basic "agreement to agree", specific course-to-course articulation, and dual credit.

### MCDOWELL ALTERNATIVE SCHOOL

The mission of McDowell Alternative High School ([www.bsc.k12.in.us/Domain/1546](http://www.bsc.k12.in.us/Domain/1546)) is to provide a supportive learning environment for students seeking an alternative pathway to pursue his/her education. Students set academic, behavior and self-management goals with a focus on transitioning into post-secondary education, training or work. The program is designed for students who are disengaged or disconnected from school. The program targets those students who, as a result of poor attendance and/or low motivation, are at risk of dropping out of school. Students apply for McDowell through their counselor at East. Once the process is completed the student will become part of a prioritized wait list for an opening at one of the quarter breaks. East and McDowell staff collaborate to determine if the student and McDowell are a good fit. The counselor at McDowell will meet with the student and parent to develop the student Success Plan. Once admitted, the student may take up to three academic classes each nine weeks. Students are encouraged to continue with elective and/or other courses needed at East. Students will have the option to return to East at the end of each semester.

### COMPUTER BASED CREDIT

Competency Based Credit (CBC) is a program offered through McDowell that focuses on credit recovery for students who attend Columbus East. Students may elect to retake a failed class, improve a grade or maybe having a hard time finding room in their schedule. CBC offers a wide range of academic core classes that are delivered by Plato software in the McDowell computer lab (Unit C room 7) or via internet. Course work is aligned to Indiana State Standards. Each student works independently on his/her classes. A teacher facilitates work, grades additional projects, and reports to East on student progress/completion. To enroll in a CBC course see your counselor to get a referral form completed. Upon completion of the referral form students have 30 days in which to enroll at McDowell. Students have up to two semesters to complete a class. McDowell labs are also available to homebound students.

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## INTERDISCIPLINARY COURSES

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### CADET TEACHING EXPERIENCES (90101, 90102)

*Open to grades 11, 12*

*1 semester, 1 credit*

*fall or spring semester*

*Prerequisites: Average or better Grades and good citizenship and attendance record.*

**COURSE DESCRIPTION:** This course is designed for seniors who have an interest in the field of education. It offers student's organized exploratory teaching experiences in grade nine class rooms. This course provides a balance of class work, classroom organization, observations of teaching and instructional experiences. The student and the cadet-teaching instructor will secure a teaching assignment for the semester. The student will spend approximately 40 minutes per day assisting the teacher with activities related to the teaching profession. Evaluation is based on the cadet teacher's cooperation, day-to-day performance, and participation reports.

### KEYSTONE/PREPARING FOR COLLEGE AND CAREERS (93401)

*Grade 9*

*1 semester, 1 credit*

*Prerequisites: Required for all freshmen*

**COURSE DESCRIPTION:** Keystone/Preparing for College and Careers is the first piece of the "Pathways to Life" approach at East. The focus of Keystone/Preparing for College and Careers 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, exploration of personal aptitudes; examining multiple life roles and responsibilities as individuals and family members, building employment skills; management of personal and family financial resources; and computer and technology applications. This course includes review of the 16 national career clusters, in-depth investigation of one or more pathways, reviewing graduation plans, developing career plans, and developing personal career portfolios.

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## INTRO TO "PATHWAYS TO LIFE"

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### EAST PATHWAYS APPROACH TO LEARNING

The "Pathways to Life" approach to learning is school-wide at Columbus East and all-inclusive reaching all students regardless of their talents or abilities. It is to ensure all students are encouraged and assisted in their academic growth and preparation for life. We accept the responsibility to prepare students for the world in which they will live. This includes rigorous academics, career awareness and planning, performance skills, interpersonal relation skills, critical thinking, problem solving and technical preparedness.

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## KEYSTONE

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The ninth grade is very important to the overall success of a high school student. It is important for ninth grade students to assimilate into the school culture and become engaged in the academics as quickly as possible. Keystone focuses on orientation to high school, time management, study skill and introduction to career clusters. In Keystone the students will develop their four year academic plan with assistance from their guidance counselor. The academic plans will be designed around information learned by the student from individual interest inventories and career exploration. Keystone students will also gain technology skills in desktop publishing, digital photograph, digital media, technical drawing, and website design.

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## CORNERSTONE

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Cornerstone is part of the Pathways to Life program which commences with Keystone in 9th grade and culminates with Capstone (Senior Project). During the 2012-2013 school year, all sophomores will complete the Cornerstone workbook and prepare for their Roundtable Exhibitions. This work will be completed during Torch Time and Resource mods. The Cornerstone year builds on the work gathered during the freshman year in Keystone classes. Sophomores will not only evaluate their academic progress since arriving at Columbus East High School, but will explore their personal involvement in the school and in the community. Each student will examine his/her individual growth plan and amend it according to the BCSC Learner Expectations and the Olympian Guiding Principles. During second semester, parents will be invited to participate in their child's Cornerstone Roundtable Exhibition. The Roundtable Exhibition is designed as a showcase for students to share what they have learned about themselves in their freshman and sophomore years at Columbus East High School. Academic and personal goal setting will be stressed. Though Cornerstone is not formally affiliated with a specific academic class, it is the expectation that all students will include their completed Cornerstone work as part of their Senior Project portfolio.

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## MILESTONE

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During the junior year, students will once again explore career options and begin planning beyond high school. The Milestone, an in-depth parent, student, and counselor conference focuses on the college selection process, college entrance examinations, financial aid, military opportunities, technical training options, school-to-work options, employment opportunities, and other post high school options. It is the objective of the Milestone to make sure students have a strategic plan for after high school and to assist them in their preparations. The Milestone is an attempt to prevent students from getting lost in the cracks during high school. Students will also be encouraged to explore topics for their senior capstone experience.

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## SENIOR CAPSTONE EXPERIENCE

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The Senior Capstone Experience/Senior Project is a student-selected exploration of a topic, which results in a formal persuasive research paper, a project or a product, and a presentation. The student also prepares a digital portfolio of writing exercises and logs, as well as the research paper. The Senior Capstone Experience moves students away from departmentalized learning toward a more interdisciplinary approach. This approach is one which allows students to use a variety of skills in the areas of writing, reading, research, speaking, and documentation. Upon completion of the Senior Capstone Experience, students have learned more about their topics, their community, and most importantly, about themselves. In his book, Results: the Key to Continuous School Improvement, Mike Schmoker writes, "Seeing what children have actually done extends our sense of student potential and defies the limits we might put on children." The Senior Capstone Experience gives students opportunities to "defy the limits."

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## COMMUNITY PARTNERSHIP

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Creating a partnership with the community is vital to schools of the future; collaboration, communication, sharing resources and expertise, and being responsive stakeholders is mutually beneficial to both school and community. The community is rich in resources for students to experience authentic education and assessment. Students are encouraged to apply their education in real life setting. It is important for employers to have highly skilled students enter the workforce upon completing formal education and training. It is a win-win situation for everyone when good school-community partnerships are fostered. Community visitations, internships, mentoring relationships, guest speakers, and student volunteerism are components of Pathways to Life. A faculty coordinator assists in identifying businesses, industries, retailers, social agencies, government agencies, and private citizens who wish to partner with the schools.

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## COURSES OFFERED AT COLUMBUS EAST HIGH SCHOOL

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Descriptions, credits, prerequisites  
Core-40 Academic Honors Diploma and Technical Honors Diploma courses are noted.

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## 2D, 3D ART & ART HISTORY

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### VISUAL COMMUNICATION THROUGH DIGITAL DESIGN (40686) \*NEW\*

*1 semester, 1 credit*

*Approximate Fee: \$31.36*

*A Core 40, AHD and THD course*

**COURSE DESCRIPTION:** This combined Visual Arts and C4 Technology course is an introductory level class that merges art design and technology skills together. Graphic design software such as Photoshop, Illustrator, etc., along with digital cameras, scanners, and printing techniques will be utilized. Sequential learning of technology tools and techniques along with a variety of compositional layouts will be created. Creative hands-on studio project activities with the use of technology tools will be merged together for assignments. Projects may include posters, T-shirt designing, mug/cup design, logos, music and

other commercial packaging, along with other visual artworks. Projects will range from one day tutorial lessons to multiple weeks assignments.

### **VISUAL COMMUNICATION THROUGH DIGITAL DESIGN II (40688) \*NEW\***

*Open to grades 9-12*

*1 semester, 1 credit*

*Approximate Fee: \$31.36*

*A Core 40, AHD and THD course*

**COURSE DESCRIPTION:** This combined Visual Arts and C4 Technology course is an advanced level class that merges art design and technology skills together using computers and hands-on studio art experiences. Graphic design software such as Photoshop, Illustrator, Autodesk Sketchbook, InDesign, and Dreamweaver along with digital cameras, scanners, digital tablets and printing techniques will be utilized. Sequential learning of technology tools and techniques along with a variety of compositional layouts will be created while continuing to learn and exploring the technical elements in visual communication design. Advanced photo editing techniques will be utilized. Projects will range from one day tutorial lessons to multiple week assignments. Students in the Visual Communication II course combine words, ideas, and images in original ways to communicate to a target audience. Reflection upon the outcome of their experiences by looking at commercial designers and looking at historical art examples and computer image design will occur. Students will explore the creative thematic development of the design process for students considering a career in visual communications. A portfolio of student work will be developed and edited for students taking the visual communications class.

### **INTRODUCTION TO 2-DIMENSIONAL ART (40211)**

*1 semester, 1 credit*

*Approximate Fee: \$22.00 per semester*

*A Core 40, AHD and THD course*

**COURSE DESCRIPTION:** The introduction to 2-dimensional Art class engages student to learn, create, and respond to areas of art through the study of art history aesthetics, criticism, and integrated studies relating to the visual arts. Students will work toward competencies in drawing, design, painting, and graphics with sequential production assignments. Careers in art will be identified throughout the course.

### **ADVANCED 2-DIMENSIONAL ART (40212)**

*1 semester, 1 credit*

*Approximate Fee: \$22.00 per semester*

*A Core 40, AHD and THD course*

*Prerequisite: Intro to 2-D Art*

**COURSE DESCRIPTION:** The advanced 2-Dimensional Art/course of study builds on the sequential experiences learned in the introduction to 2 Dimensional Art Course. Aesthetics, historical, and integrated art connections, art criticism, and expanded career information will be learned in this course. Production mediums using prisma-color pencils, India ink, tempera watercolor, scratchboard, and glass etching will be explored. Varied techniques for the use leading to the mastery of skills in these areas will be introduced.

### **ADVANCED 2-DIMENSIONAL ART II (40213)**

*1 semester, 1 credit*

*Approximate Fee: \$22.00 per semester*

*A Core 40, AHD and THD course*

*Prerequisite: Advanced 2-D Art I*

**COURSE DESCRIPTION:** The advanced 2-Dimensional Art/course continues production mediums using drawing, painting, and design methods. Opportunities for preliminary independent study work will be added this semester. Students will learn and develop skills in art criticism, history and aesthetics, find connections of integrated studies and art careers associated with or in addition to the production mediums. Planning, creativity execution, and craftsmanship are stressed on all written, oral or physical projects.

### **ADVANCED 2-DIMENSIONAL ART III (40214)**

*1 semester, 1 credit*

*Approximate Fee: \$22.00 per semester*

*A Core 40, AHD and THD course*

*Prerequisite: Advanced 2-D Art II*

**COURSE DESCRIPTION:** The advanced 2-Dimensional Art III course challenges students to learn new production mediums of abstracting forms, still life study, figurative study, and an independent study chosen by the student relating to 2-dimensional art. Production methods will incorporate studies of career, aesthetic, history, criticism, and integrated art information. Planning, creativity, level of execution, and craftsmanship are stressed on written, oral and physical assignments.

### **ADVANCED 2-DIMENSIONAL ART IV (40215)**

*1 semester, 1 credit*

*Approximate Fee: \$22.00 per semester*

*A Core 40, AHD and THD course*

*Prerequisite: Advanced 2-D Art III*

**COURSE DESCRIPTION:** The advanced 2-Dimensional Art IV course of study expands on graphic design, painting and drawing opportunities. While finding correlations to other disciplines, career options, and critical analysis of artwork in our wide diversity of cultures, understanding this broad range of creative options will be stressed. Creativity is stressed in written, oral, and production applications.

### **ADVANCED 2-DIMENSIONAL ART V (40216)**

*1 semester, 1 credit*

*Approximate Fee: \$22.00 per semester*

*A Core 40, AHD and THD course*

*Prerequisite: Advanced 2-D Art IV*

**COURSE DESCRIPTION:** The advanced 2-Dimensional Art V course concentrates on acrylic, alkyd, and oil paint techniques and their historical and aesthetic applications. Research into historic techniques and choosing media for independent study in painting are critical to this course. Learning correlations to other disciplines, exploring new career opportunities in the visual arts, critical analysis, and study of the aesthetic design of art works and surroundings is required. Planning, execution, creativity and craftsmanship are all stressed on written, oral, and physical assignments.

### **ADVANCED 2-DIMENSIONAL ART VI (40217)**

*1 semester, 1 credit*

*Approximate Fee: \$22.00 per semester*

*A Core 40, AHD and THD course*

*Prerequisite: Advanced 2-D Art V*

**COURSE DESCRIPTION:** The advanced 2-Dimensional Art VI course concentrates on students' independent study of painting, drawing, and design. The preparation and organization of works created for the student portfolio is essential in this course. The collection of portfolio quality works and student information will be assembled for students' use. Working closely with the instructor, production, art criticism, history, aesthetics, connection of integrated studies, and vocational, university, and career opportunities will be explored. Planning, creativity, execution, and craftsmanship are all stressed on written, oral, and physical assignments.

### **ADVANCED 2-DIMENSIONAL ART VII (40218)**

*1 semester, 1 credit*

*Approximate Fee: \$22.00 per semester*

*A Core 40, AHD and THD course*

*Prerequisite: Advanced 2-D Art VI*

**COURSE DESCRIPTION:** The advanced 2-Dimensional Art VII course concentrates on students' independent study in production, art criticism, career information, art history, aesthetics, and integrated studies. Student and teacher will develop a schedule and course of study for this class tailored to the student needs after graduation. Continued portfolio needs and scholarship opportunities will be investigated and pursued. Planning, creativity, execution, and craftsmanship are all stressed on written, oral, and physical projects. Completion of the portfolio with work amassed over the past four years is but one goal of this total experience.

### **INTRODUCTION TO 3-DIMENSIONAL ART (40411)**

*1 semester, 1 credit*

*Approximate Fee: \$24.34 per semester*

*A Core 40, AHD and THD course*

**COURSE DESCRIPTION:** The introduction to 3-Dimensional Art class engages students to learn, create, and respond to areas of art through the study of Art History, aesthetics, criticism, and integrated studies relating to the visual arts. Art careers will also be identified throughout the course. Through the use of production assignments students will be introduced to various modeling, casting, assemblage, and carving techniques. Various mediums will be explored, such as, clay, plaster, printmaking, and/or paper sculpture. The Potter's Wheel will also be introduced to students.

### **ADVANCED 3-DIMENSIONAL ART I (40412)**

*1 semester, 1 credit*

*Approximate Fee: \$24.34 per semester*

*A Core 40, AHD and THD course*

*Prerequisite: Introduction to 3-Dimensional Art*

**COURSE DESCRIPTION:** The Advanced 3-Dimensional Art I course of study builds on the sequential experiences learned in the Introduction to 3-Dimensional Art course. Aesthetics, historical, and integrated art connections, art criticism, and expanded career information will be learned in this course. Production mediums using

clay, printmaking, glass etching, textile tie-dyes will be explored. Techniques such as the potter's wheel, hand building in clay, Plexiglas engraving, and printing, glass or mirror design with etching materials will be introduced.

### **ADVANCED 3-DIMENSIONAL ART II (40413)**

*1 semester, 1 credit*

*Approximate Fee: \$24.34 per semester*

*A Core 40, AHD and THD course*

*Prerequisite: Advanced 3-Dimensional Art I*

**COURSE DESCRIPTION:** The Advanced 3-Dimensional Art II course continues production mediums using carving, cutting, casting, modeling, and assemblage methods. Clay sculpture, soapstone carving, and silk-screen printing will be focused this semester along with production assignments. Students will learn and develop art criticism, history, and aesthetics, find connections of integrated studies, and art careers associated with or in addition to the above production mediums. Planning, creativity, execution and craftsmanship are stressed on all written, oral, or physical projects.

### **ADVANCED 3-DIMENSIONAL ART III (40414)**

*1 semester, 1 credit*

*Approximate Fee: \$24.34 per semester*

*A Core 40, AHD and THD course*

*Prerequisite: Advanced 3-Dimensional Art II*

**COURSE DESCRIPTION:** The Advanced 3-Dimensional Art III course challenges students to learn new production mediums of paper-pulp sculpture, textile design, clay relief, and an independent study chosen by the student relating to 3-dimensional art. Production methods will incorporate studies of career, aesthetic, history, criticism, and integrated art information. Planning, creativity, execution, and craftsmanship are all stressed on written, oral, and physical assignments.

### **ADVANCED 3-DIMENSIONAL ART IV (40415)**

*1 semester, 1 credit*

*Approximate Fee: \$24.34 per semester*

*A Core 40, AHD and THD course*

*Prerequisite: Advanced 3-Dimensional Art III*

**COURSE DESCRIPTION:** The Advanced 3-Dimensional Art IV course of study expands the learning experiences and production mediums of woodblock printing, stone carving in alabaster, and slab clay construction techniques. Exploring historical connections, finding correlations to other disciplines, exploring interested career options in the visual arts, critical analysis and aesthetic design of art works and our surroundings will be an important facet of this class. Planning, creativity, execution, and craftsmanship are all stressed on written, oral, and physical projects.

### **ADVANCED 3-DIMENSIONAL ART V (40416)**

*1 semester, 1 credit*

*Approximate Fee: \$24.34 per semester*

*A Core 40, AHD and THD course*

*Prerequisite: Advanced 3-Dimensional Art IV*

**COURSE DESCRIPTION:** The Advanced 3-Dimensional Art V course concentrates on learning experiences and production mediums of plaster gauze construction, clay or glass mosaic design, textile batiks, and a 3-dimensional independent study lesson chosen by the student with teacher direction. Exploring historical connections, learning correlations to other disciplines, exploring new career opportunities in the visual arts, critical analysis, and aesthetic design of art works and surroundings will be required. Planning, execution, creativity, and craftsmanship are all stressed on written, oral, and physical assignments.

### **ADVANCED 3-DIMENSIONAL ART VI (40417)**

*1 semester, 1 credit*

*Approximate Fee: \$24.34 per semester*

*A Core 40, AHD and THD course*

*Prerequisite: Advanced 3-Dimensional Art V*

**COURSE DESCRIPTION:** The Advanced 3-Dimensional Art VI course concentrates on students' independent study of production methods in carving, and modeling in various mediums, such as: limestone and clay. Independent study in printing may also be chosen with teacher permission. Production along with art criticism, history, aesthetics, connection of integrated studies, and vocational, college, and career opportunities will be explored. A collection of portfolio quality works and student information will be assembled for students' use in post-graduate years. Planning, creativity, execution, and craftsmanship are all stressed on written, oral, and physical assignments.

## ADVANCED 3-DIMENSIONAL ART VII (40418)

*1 semester, 1 credit*

*Approximate Fee: \$24.34 per semester*

*A Core 40, AHD and THD course*

*Prerequisite: Advanced 3-Dimensional Art VI*

**COURSE DESCRIPTION:** The Advanced 3-Dimensional Art VII course concentrates on students' independent study in production, art criticism, career information, art history, aesthetics, integrated studies, with connections to other disciplines. Student and teacher will develop a schedule and course of study for this class tailored to the students needs for post-graduate year. Continued portfolio needs and scholarship opportunities will be investigated and pursued. Planning, creativity, execution, and craftsmanship are all stressed on written, oral, and physical projects.

## ART HISTORY AND APPRECIATION I-PREHISTORIC TO RENAISSANCE (40501)

*Open to grades 9-12*

*1 semester, 1 credit*

*Approximate Fee: \$21.36 per semester*

*A Core 40, AHD and THD course*

*Prerequisite: None*

**COURSE DESCRIPTION:** Students will explore and appreciate art from a variety of art, artifacts, and architecture, by exploring interactive websites in the visual communications lab, weekly hands on art lessons, art magazines, videos and lecture/discussion. Art history and the study of the people that made the art will be analyzed during the time in which it was produced. Students will learn and develop skills to describe, analyze, interpret and judge a variety of art from different times, art movements and cultural periods, learning the art of appreciation and seeing art from new perspectives. Art museums, galleries and the art and architecture of Columbus, Indiana will be utilized. Through the study of art in chronological order from Prehistoric to the Renaissance, students will research, write and find connections by viewing our world as it was and as it is now, using the textbook *Discovering Art History* and internet websites. Career options in art history related professions, as well as student group presentations and individual presentations of their research are also part of this course. This course may be taken as one semester, or combined with Art History and Appreciation II to fulfill fine arts credits.

## ART HISTORY AND APPRECIATION II-RENAISSANCE TO PRESENT (40502)

*Open to grades 9-12*

*1 semester, 1 credit*

*Approximate Fee: \$21.36 per semester*

*A Core 40, AHD and THD course*

*Prerequisite: None*

**COURSE DESCRIPTION:** Students will continue their exploration and appreciation of the art from the past, by building on previous skills learned in Art History and Appreciation. Students will continue to look at art from different perspectives of the time and culture it was made, by using interactive websites in the visual communications lab, weekly hands on art lessons, art magazines, videos and lecture/discussion. A variety of art-making techniques and inventions, art, artifacts and architecture will continue to be explored, in order to correlate what they learn to other classes and disciplines. Through the study of art in chronological order from the Renaissance to the Present using the textbook *Discovering Art History* and internet websites, students will develop their skills to describe, analyze, interpret and judge a variety of art from different times, art movements and cultural periods. Research, writing and historical connections and comparisons will be made in group and individual presentations. Career options in art history related professions, as well as art appreciation of local and regional art, and the architecture of Columbus, Indiana will be part of this course. This course may be taken as one semester, or combined with Art History and Appreciation I to fulfill fine arts credits.

## C4 COLUMBUS AREA CAREER CONNECTION

Cluster education evolved from the C4 Long Range Plan for Quality Improvement of Career and Technical Education. Cluster education is designed to meet the requirements of a broad-based education for career development. Visual charts depict areas of learning available within each cluster. The competencies to be attained from the areas of learning are found in the courses listed below.

## C4 VISION STATEMENT

C4 will connect community resources to provide career education for all students while laying the foundation for life-long learning.

## ARTICULATION

Articulation is defined as the linking of two or more educational systems to help students make a smooth transition from one level to another without experiencing delays, duplication, or lost credit. C4 Columbus Area Career Connection has worked extensively on a multi level system of articulation with partnering post-secondary institutions: IUPUI of Columbus, Ivy Tech College Columbus, and Purdue Statewide School of Technology. Three levels of articulation have been developed. They are - basic "agreement to agree", specific course-to-course articulation, and dual credit. Simply stated: High school students can earn college (Post-secondary) credit for eligible C4 Courses. Due to high demands on student time, C4 will review the transcript of any student having failed a required course, which must be repeated. C4 will, at that time, accept or deny a student's application for a career class.

## EQUAL OPPORTUNITY

Bartholomew Consolidated School Corporation/C4 are committed to equal opportunity and do not discriminate on the basis of age, race, color, religion, sex, handicapping conditions, or national origin including limited English proficiency, in any employment opportunity. No person is excluded from participation in, denied the benefits of, or otherwise subjected to unlawful discrimination on such basis under any educational program or student activity.

If you have experienced discrimination in such educational programs or activities, written inquiries about procedures that are available and for consideration of complaints alleging such discrimination should be directed to Dr. Linda DeClue, Assistant Superintendent, 1200 Central Avenue, Columbus, IN, 47201 (telephone number 812-376-4392).

## AGRICULTURAL SCIENCE AND BUSINESS CLUSTER

### FUNDAMENTALS OF AGRICULTURAL SCIENCE & BUSINESS (50011)

*Open to grades 9,10,11,12*

*2 semesters, 1 credit per semester*

*Approximate cost per semester: \$26.59*

*Meets requirements of: THD, AHD, Core 40*

**COURSE DESCRIPTION:** Fundamentals of Agricultural Science and Business is a yearlong course that is highly recommended as a prerequisite and foundation for all other agricultural classes. The nature of this course is to provide students with an introduction to the fundamentals of agricultural science and business. Topics covered include: animal science, plant and soil science, food science, horticultural science, farm and agribusiness management, landscape management, natural resources management, agricultural mechanization, and supervised leadership development. An activity and project based approach is used along with team building to enhance the effectiveness of the student learning activities. This introductory level course is for those students who would like to investigate the challenging field of agriculture and its related business. Basic studies include the following areas: horticulture, animal science, and F.F.A. contest participation, along with natural resources, forestry and wildlife. Occupations related to these areas will also be covered. This is suggested for students with interest in the progressive area of agriculture.

### AGRIBUSINESS MANAGEMENT (50021) (NOT OFFERED IN 2012 - 2013)

*1 semester, 1 credit Grade 10-12*

*Approximate cost per semester: \$10.00*

*Meets requirements of THD, AHD, Core 40*

*Recommendation(s): Previous agricultural course*

*Dual Credit Agreement(s): Ivy Tech Community*

*College AGRI 102 Agricultural Business & Farm Management (3 credits)*

**COURSE DESCRIPTION:** Students will learn about economics as it relates to agriculture. This course involves the rules and laws that govern our economy as well as the initiative it takes to survive in our economy. Students will be encouraged to learn the skills that it takes to become an entrepreneur and take their careers into their own hands.

## HORTICULTURAL SCIENCE (50031)

*2 semesters, 1 credit per semester Grades 9-12*

*Approximate cost per semester: \$25.41*

*Meets requirements of THD, AHD, Core 40*

**COURSE DESCRIPTION:** Horticultural Science is a yearlong course designed to give students a background in the field of horticulture and its many career opportunities. It addresses the biology and technology involved in the production, processing, and marketing of horticultural plants and products. Topics covered include: reproduction and propagation of plants, plant growth, growth media, floriculture, management practices for field and greenhouse production, marketing concepts, production of herbaceous, woody, and nursery stock, fruit, nut, and vegetable production, and pest management. Students participate in a variety of activities including extensive laboratory work in the school greenhouse. Plant identification, greenhouse management, floral design, horticulture business operations and management, landscape design, lawn care, turf management, and houseplants will be major topics. Students will grow and manage plants in the greenhouse.

### LANDSCAPE MANAGEMENT - YEAR ONE (2 HOURS) (50032)

*2 semesters, 2 credits per semester (2 periods)*

*Grades 11-12*

*Approximate cost per semester: \$15.41*

*Meets requirements of: THD, AHD, Core 40*

*Recommendation (s): 50011 Fundamentals of*

*Agricultural Science and Business & 50031*

*Horticulture*

**COURSE DESCRIPTION:** This course is a yearlong course that provides the student with an overview of the many career opportunities in the diverse field of landscape. Students are introduced to the procedures used in the planning and design of a landscape using current technology practices, the principles and procedures involved with landscape construction, the determination of maintenance schedules, communications, management and employability skills necessary in landscaping operations, and the care and use of equipment utilized by landscapers.

### LANDSCAPE MANAGEMENT - YEAR TWO (2 HOURS) (50042)

*2 semesters, 2 credits per semester (2 periods)*

*Grades 11-12*

*Approximate cost per semester: \$40.00*

*Meets requirements of: THD, AHD, Core 40*

*Prerequisite(s): 50032 Landscape Management -*

*Year One*

**COURSE DESCRIPTION:** The course is a yearlong course that provides the student with an overview of the many career opportunities in the diverse field of landscape. Student skills learned the previous year will be strengthened in the following areas: procedures used in the planning and design of a landscape using current technology practices, the principles and procedures involved with landscape construction, the determination of maintenance schedules, communications, management and employability skills necessary in landscaping operations, and the care and use of equipment utilized by landscapers.

### NATURAL RESOURCES MANAGEMENT (50041) (NOT OFFERED 2012-2013)

*1 semester, 1 credit Grades 9-12*

*Approximate cost per semester: \$10.00*

*Meets requirements of THD, AHD, Core 40*

*Recommendation(s): 50011 Fundamentals of*

*Agricultural Science and Business or 50031*

*Horticultural Science*

**COURSE DESCRIPTION:** This course is a semester program that provides students with a background in the natural resources management. Students are introduced to career opportunities in natural resource management and related industries, the history of forest industry and forest policy, the importance and uses of forest plants, factors that influence the development of forests, forest improvement and best management practices, proper care and use of forest tools and equipment, effects of management practices on the environment, soil conservation practices, water and its importance to natural resource management, hazardous waste management, native wildlife, waterfowl, fish, wetlands and pond management, surveying and map use, management of recreational areas, outdoor safety, and weather. "Hands-on" learning activities encourages students to investigate areas of environmental concern including: identification and management of ecosystems, management of waste, chemicals and the environment, soil conservation, land uses, regulations, ordinances, water quality, and air quality. Also, students will identify and study the food and water requirements of forest and wildlife.

### **ADVANCED LIFE SCIENCE: PLANTS AND SOIL (25503)**

2 semesters, 1 credit per semester Grades 11-12  
Recommendation(s): *Fundamentals of Agriculture Science and Business*  
Approximate cost per semester: \$25.41  
Meets requirements of: THD, AHD, Core 40, NCAA  
Dual Credit Agreement(s): *Purdue University BNTY 210 Introduction to Plant Science (4 credits)* All course requirements must be met. These credits will count toward the requirements of the *Indiana Technical Honors Diploma and Academic Honors Diploma*.  
Note: This course counts towards Core 40 Science credits.

**COURSE DESCRIPTION:** Plant and Soil Science is a yearlong course that provides students with opportunities to participate in a variety of activities including laboratory work. Topics covered include: the taxonomy of plants, the various plant components and their functions, plant growth, plant reproduction and propagation, photosynthesis and respiration, environmental factors affecting plant growth, diseases and pests in plants and their management, biotechnology, the basic components and types of soil, calculation of fertilizer application and rates and procedures for application, soil tillage and conservation, irrigation and drainage, land measurement, cropping systems, precision agriculture, principles and benefits of global positioning systems, harvesting, and career opportunities in the field of plant and soil science.

### **ANIMAL SCIENCE (50061)**

2 semesters, 1 credit per semester Grades 10-12  
Approximate cost per semester: \$23.12  
Meets requirements of: THD, AHD, Core 40  
Recommendation(s): *50011 Fundamentals of Agricultural Science and Business or 50031 Horticulture*

**COURSE DESCRIPTION:** This course provides students with an overview of the field of animal science. Students participate in a large variety of activities and laboratory work including real and simulated animal science experiments and projects. All areas that the student's study can be applied both to large and small animals. Topics addressed include: anatomy and physiology, genetics, reproduction, nutrition, aquaculture, careers related to the industry, and management practices for the care and maintenance of animals, proper housing, feeding, watering, and general care of horses. Companion pets such as dogs, cats, and other small animals will be studied also.

### **ADVANCED LIFE SCIENCE: ANIMALS (25501)**

2 semesters, 1 credit per semester Grades 11-12  
Approximate cost per semester: \$20.39  
Meets requirements of: THD, AHD, Core 40, NCAA  
Recommendation(s): *Two years of Core 40/AHD Science*  
Dual Credit Agreement(s): *Purdue University ANSC 102 Intro to Animal Agriculture (3 credits)* All course requirements must be met. These credits will count toward the requirements of the *Indiana Technical Honors Diploma and Academic Honors Diploma*.  
Note: This course counts towards Core 40 Science credits.

**COURSE DESCRIPTION:** Advanced Life Science, Animals, is a standards-based, interdisciplinary science course that integrates biology, chemistry, and microbiology in an agricultural context. Students enrolled in this course formulate, design, and carry out animal-based laboratory and field investigations as an essential course component. Students investigate key concepts that enable them to understand animal growth, development, and physiology as it pertains to agricultural science. This course stresses the unifying themes of both biology and chemistry as students work with concepts associated with animal taxonomy, life at the cellular level, organ systems, genetics, evolution, ecology, and historical and current issues in animal agriculture. Students completing this will be able to apply the principles of scientific inquiry to solve problems related to biology and chemistry in highly advanced agricultural applications of animal development.

### **ADVANCED LIFE SCIENCE: FOODS (25502)**

2 semesters, 1 credit per semester (2 periods) Grades 11, 12  
May include travel period.  
Approximate cost per semester: \$16.55  
Meets requirements of: THD, AHD, Core 40, NCAA  
Recommendation(s): *Two years of Core 40/AHD Science*  
Note: This course counts towards Core 40 Science credits.

**COURSE DESCRIPTION:** Advanced Life Science - Foods is a standards-based, interdisciplinary science course that integrates biology, chemistry, and microbiology in an agricultural context. Students enrolled in this course formulate, design, and carry out food-based laboratory and field investigations as an essential course component. Students investigate key concepts that enable them to understand how biology, chemistry, and physics principles apply to the composition of foods, food nutrition and development, food processing, and storage. Students completing this will be able to apply the principles of scientific inquiry to solve problems related to biology and chemistry in highly advanced agricultural applications of food.

### **SUPERVISED AGRICULTURAL EXPERIENCE (S.A.E.)**

Supervised Agricultural Experience (S.A.E.) is designed to provide students with opportunities to gain experience in the agriculture field(s) in which they are interested. Students should experience and apply what is learned in the classroom, laboratory, and training site to real-life situations. Students work closely with their agricultural science and business teacher(s), parents, and/or employers to get the most out of their S.A.E. program. This course should be offered each semester as well as during the summer session. S.A.E. may be offered as a Cooperative Education Program. Curriculum content and competencies should be varied so that school year and summer session experiences are not duplicated. The course may be offered on an independent study basis.

### **SUPERVISED AGRICULTURAL EXPERIENCE (SAE) (50071)**

2 semesters, 1 credit per semester - Independent Study Opportunity Grades 11, 12  
Approximate cost per semester: \$10.00  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): *Instructor approval required*

**COURSE DESCRIPTION:** This course is designed for students who will be entering an agricultural career upon graduation and/or furthering their education in an agricultural area. Students will choose their special areas of interest to study in depth and detail for the course. Students should confer with their instructor and develop a plan of study if interested in this course.

### **SUPERVISED AGRICULTURAL EXPERIENCE (SAE) (50077)**

#### **AGRICULTURAL/CO-OP TRAINING (RELATED)**

2 semesters, 1 credit per semester at East Grade 12  
*Agricultural/Co-op Training (Job) (50079)*  
2 semesters, 2 credits per semester at East Grade 12  
Approximate cost per semester: \$5.90  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): *Coordinator approval required. Student must provide their own transportation. Minimum age of 16 and eligibility requirements of the Federal and State Child Labor Laws.*

**COURSE DESCRIPTION:** This course provides training in agricultural work areas by combining classroom instruction and work experience in the community. The student attends the cooperative education related class each day before being released to work in the community. In the related class the student will study topics related to employee effectiveness and making the transition into the effort of the student and teacher/coordinator, who supervises the total program.

### **BUSINESS, MANAGEMENT AND FINANCE CLUSTER**

#### **BUSINESS FINANCE ACADEMY**

The Business & Finance Academy is an optional two-year program that is part of the C4 Business Management and Finance Cluster beginning in the student's junior year. The Business & Finance Academy is designed to prepare students for careers in financial service business such as: stock broker, real estate, banking, accounting, mortgage broker, insurance, investment advisor, financial planner, and entrepreneur. The Academy focuses on roles and responsibilities of

businesses and business people as well as the challenges and opportunities available to young entrepreneurs. We learn through real life projects, energizing class discussions and guest speakers. Pathway to Business and Entrepreneurship are recommended courses prior entering the Academy. The Business & Finance Academy includes several courses available for dual credit with Ivy Tech. Students are eligible to receive up to 12 dual credit hours during the two year program. To receive dual credit students must demonstrate eligibility prerequisites and complete all course requirements with a C or above.

The rotating course sequence offering for the Business & Finance Academy is shown below (Students may begin the sequence in either year and still get all offerings:

#### **BUSINESS & FINANCE ACADEMY - (2012-2013)**

##### **51572 - 2 CREDITS**

##### **51573 - 3 CREDITS**

Semester 1	Semester 2
International Business	*Securities and Insurance
Accounting 1 & 2	Accounting 1 & 2
*College Level Business	*Business Management

#### **BUSINESS & FINANCE ACADEMY - (2013-2014)**

##### **51582 - 2 CREDITS**

##### **51583 - 3 CREDITS**

Semester 1	Semester 2
*Personal Finance	*Marketing
*Business and Personal Law	Banking & Credit
Accounting 1&2	Accounting 1&2
*Denotes Dual Credit Classes	

#### **PATHWAYS TO BUSINESS (51501)**

2 semesters, 1 credit per semester (2 periods) at East Grades 9-12  
Approximate cost per semester: \$13.92  
Meets requirements of: THD, AHD, Core 40

**COURSE DESCRIPTION:** Pathways to Business is an introductory class that will provide a solid foundation for students entering any of the other classes in the Business, Management and Finance Cluster. The class will cover basic, but important, topics that will not be repeated in each of the other cluster classes. The Pathways to Business class will cover such topics as career information/research; formulating personal and career goals; business ethics; employment seeking skills; workplace expectations; information research resources; project management skills; computer skills; economic concepts; math concepts; and communication skills. Instructional strategies will include projects, field trips, guest speakers, the Internet, simulation, internships and cooperative ventures between school and community.

#### **ENTREPRENEURSHIP & MANAGEMENT ENTREPRENEURSHIP (51511)**

1 semester, 1 credit per semester (2 periods) at East Grades 10-12  
Approximate cost per semester: \$7.69 + \$25.00 one time student license fee  
Meets requirements of: THD, AHD, Core 40

**COURSE DESCRIPTION:** This course provides a good start for future entrepreneur-students planning to own or manage a business-and college prep students planning to major in any area of business. Students will construct a business plan and marketing plan while learning how small businesses manage human and financial resources. Students will visit the Small Business Development Center in Columbus and hear several local entrepreneurs share their experiences as business owners.

#### **PERSONAL FINANCE (51521) (DUAL CREDIT)**

1 Semester 1 Credit per semester Grades 10-12  
Approximate Fee: \$15.30 per semester  
A Core 40 directed elective as part of the technical career area. THD & AHD elective

**COURSE DESCRIPTION:** Personal Finance is a course designed to help a person properly manage money in today's environment. This course will benefit the college preparatory and non-college preparatory student. Areas of study include personal financial planning, financial statements, services, budgeting, investments, portfolio management, interpreting financial statements, stocks vs.. bonds, insurance protection, credit management, consumer purchases, rights, and responsibilities, a decision-making skill for all aspects of life as consumers, producers, entrepreneurs, and economic citizens. Instructional strategies may include use of projects, cooperative learning, simulations, real world experiences, guest speakers, Internet research, and computer/technology applications.

## **BUSINESS, COLLEGE LEVEL (51531) (DUAL CREDIT)**

*1 Semester 1 Credit Grades 11-12*

*Approximate Fee: \$31.02 per semester*

*A Core 40 directed elective as part of the technical career area. THD & AHD elective*

COURSE DESCRIPTION: Business, College Level is a junior or senior business course, which will provide an opportunity for college bound students to study business outside the traditional business education offerings. This course acquaints students with the functions performed by business and the role business activities play in our economy. Areas of study to be included are business trends, business ownership, business management, empowering employees to satisfy customers, management of human resources, marketing, developing and implementing customer-oriented working plans, decision making, managing information, managing financial resources, financing and investing through securities markets, understanding money and financial institutions, and planning a business career. This course will use a college textbook and college curriculum standards. This class is project-based so that the student may work at his/her own pace.

## **BUSINESS, COLLEGE LEVEL ON-LINE (51142)**

*1 semester, 1 credit Grades 11-12*

*Approximate Cost: TBA*

*A Core 40, AHD and THD course*

COURSE DESCRIPTION: This course acquaints students with business functions and the role business plays in our economy. Areas of study intend business trends, ownership and management, empowering employees to satisfy customers, management of human resources, marketing, developing and implementing customer-oriented working plans, decision making, managing information, managing financial resources, financing and investing through securities markets, understanding money and financial institutions, and planning a business career. This is a project based college course and will use a college textbook and curriculum.

## **BANKING AND CREDIT (51561)**

*1 Semester 1 Credit Grades 11-12*

*Approximate Fee: \$20.00 per semester*

*A Core 40 directed elective as part of the technical career area. THD & AHD elective*

COURSE DESCRIPTION: This one semester course presents a survey of the principles and practices of banking and credit in the United States. The students learn about the major functions of banks and other depository institutions, in-house operations and procedures, central banking through the Federal Reserve System and modern trends in the banking industry. The credit component provides an overview of credit functions and operations including credit risk evaluation, loan creation and debt collection. This course culminates in the Fed Challenge project.

## **INTERNATIONAL BUSINESS (51581)**

*1 Semester 1 Credit Grades 11-12*

*Approximate Fee: \$20.00*

*A Core 40 directed elective as part of the technical career area. THD & AHD elective*

COURSE DESCRIPTION: The international business environment is becoming more challenging everyday. This course will explore how international business is part of our everyday life. Areas of study will include cultural, geographic, political and legal ramifications on business markets and imports/exports. In addition, students will study aspects of international finance, management, marketing, and communications. Students will use a variety of learning techniques to help re-enforce the material covered. Student will experience field trips, guest speakers and internet research.

## **ACCOUNTING I (51061)**

*Full year 1 credit each semester 10-12*

*Approximate Fee: \$38.21 per semester*

*A Core 40 directed elective as part of the technical career area.*

COURSE DESCRIPTION: Accounting 1 presents basic accounting principles applied to manual data processing systems. The entire accounting cycle is covered from the opening entries to closing entries. Financial reports such as income statements, distribution of net income, capital statements, and balance sheets are prepared. Students will learn payroll procedures for the recording and payment of payroll expenses and liabilities.

Articulation: (CEHS) Accounts: (IBC) A101

## **ACCOUNTING II (51062)**

*Full year 1 credit each semester 10-12*

*Approximate Fee: \$38.20 per semester*

*A Core 40 directed elective as part of the technical career area.*

COURSE DESCRIPTION: Accounting II begins with a business stimulation which gives the students the extended and realistic opportunity to apply the basics learned in the first year. Students will be introduced to corporate accounting, depreciation, bad debts, stocks, bonds and other accounting procedures.

Articulation: (CEHS) Accounts: (IBC) A101

## **SECURITIES AND INSURANCE (51541)**

*1 Semester 1 Credit Grades 11-12*

*Approximate Fee: \$20.00 per semester*

*A Core 40 directed elective as part of the technical career area. THD & AHD elective*

COURSE DESCRIPTION: This course focuses on the roles and functions of modern securities organization and elements of the insurance industry. Students will study the structure of brokerage firms, the trading process, credit and margin practices, automated processes, and government regulations. They will learn about insurance needs and products for businesses and individuals, insurance sales, rate-setting, insurance and financial planning, insurance regulations, and careers in securities and insurance.

## **BUSINESS MANAGEMENT (51571) (DUAL CREDIT) (DUAL CREDIT)**

*1 Semester 1 Credit Grades 11-12*

*Approximate Fee: \$10.00*

*A Core 40 directed elective as part of the technical career area. THD & AHD elective*

COURSE DESCRIPTION: This course will describe the rewards, benefits and privileges managers might expect in their day to day activities. We will also investigate the challenges faced many managers today. Students will learn the characteristics of a good leader. Staying ahead of their rivals, managers must be able to manage diversity in the workplace, globalization, information technology advancements, maintain high ethical standards, be aware of personal happiness of employees ad life goals. Students will learn how managers, must plan, organize, lead and control all aspects of a business while maintaining effectiveness and efficiency within the organization.

## **MARKETING (51591) (DUAL CREDIT)**

*1 Semester 1 Credit Grades 11-12*

*Approximate Fee: \$10.00*

*A Core 40 directed elective as part of the technical career area. THD & AHD elective*

COURSE DESCRIPTION: This course introduces the marketing role in society and how it affects the marketing strategy. It defines marketing as a broad activity that adds value to products. Students will learn the marketing mix, product planning, and the effects of the demographic dimension on the consumer market. Also, students will learn how marketing attempts to satisfy the consumers needs and wants through customer service, pricing strategies, motivation/learning theories and marketing research.

## **BUSINESS AND PERSONAL LAW (51081) (DUAL CREDIT)**

*1 Semester 1 Credit Grades 10-12*

*Approximate Fee: \$17.64 per semester*

*A Core 40 directed elective as part of the technical career area. THD & AHD elective*

COURSE DESCRIPTION: Business and Personal Law is a business course that provides the basic foundation of the legal system. This course will cover consumer rights and obligations, contractual agreements, business rights and obligations, torts, laws for minors, and both criminal and civil trails. Instructional strategies may include mock trials, case studies, professional mentoring, job shadowing, field trips, guest speakers, and computer/technology applications. The student will be able to identify the basic freedoms guaranteed by the Bill of Rights, describe the basic structure of the national, state and local court system, compare and contrast steps in a civil law suit with the steps in a criminal prosecution, explain the concepts of a reasonable person and proximate cause, identify legislation that regulates business and labor, define and explain the right and obligations that are involved in marriage, define real property, personal property and how they differ, and clarify contract law.

Articulation: (CEHS) Business Law-(Ivy Tech) BUS102

## **COMMUNICATIONS CLUSTER**

\* EACH CLASS IS A CORE 40 DIRECTED ELECTIVE AS A PART OF THE TECHNICAL CAREER AREA. THD & AHD ELECTIVE

## **INTRODUCTION TO COMMUNICATIONS (52101)**

*2 semesters, 1 credit per semester Grades 9-12*

*Approximate cost per semester: \$17.73*

*Meets requirements of: THD, AHD, Core 40*

COURSE DESCRIPTION: Introduction to Communications is a course that specializes in using modern communication processes to exchange messages and information at greater volumes and improved speeds. This course explores the various technical processes used to link ideas and peoples through the uses of electronic and graphic media. Major goals of this course include an overview of communication technology; the way it has evolved, how messages are designed and produced, and how people may profit from creating information services and products. Students will explore mass media communication processes including radio and television broadcasting, publishing and printing activities, telecommunications networks, recording services, computer and data processing networks and other related systems.

## **VISUAL COMMUNICATION THROUGH DIGITAL DESIGN (40687) \*NEW\***

*1 semester, 1 credit Grades 9-12*

*Approximate Fee: \$31.36*

*A Core 40, AHD and THD course*

COURSE DESCRIPTION: This combined Visual Arts and C4 Technology course is an introductory level class that merges art design and technology skills together. Graphic design software such as Photoshop, Illustrator, etc, along with digital cameras, scanners, and printing techniques will be utilized. Sequential learning of technology tools and techniques along with a variety of compositional layouts will be created. Creative hands-on studio project activities with the use of technology tools will be merged together for assignments. Projects may include posters, T-shirt designing, mug/cup design, logos, music and other commercial packaging, along with other visual artworks. Projects will range from one day tutorial lessons to multiple weeks assignments.

## **VISUAL COMMUNICATION THROUGH DIGITAL DESIGN II (40688)\*NEW\***

*1 semester, 1 credit Grades 9-12*

*Approximate Fee: \$31.36*

*A Core 40, AHD and THD course*

COURSE DESCRIPTION: This combined Visual Arts and C4 Technology course is an advanced level class that merges art design and technology skills together using computers and hands-on studio art experiences. Graphic design software such as Photoshop, Illustrator, Autodesk Sketchbook, InDesign, and Dreamweaver along with digital cameras, scanners, digital tablets and printing techniques will be utilized. Sequential learning of technology tools and techniques along with a variety of compositional layouts will be created while continuing to learn and exploring the technical elements in visual communication design. Advanced photo editing techniques will be utilized. Projects will range from one day tutorial lessons to multiple week assignments. Students in the Visual Communication II course combine words, ideas, and images in original ways to communicate to a target audience. Reflection upon the outcome of their experiences by looking at commercial designers and looking at historical art examples and computer image design will occur. Students will explore the creative thematic development of the design process for students considering a career in visual communications. A portfolio of student work will be developed and edited for students taking the visual communications class.

## **MULTIMEDIA COMMUNICATIONS (52002) - YEAR ONE (2 HOURS)**

*2 semesters 2 credits per semester Grades 9-12*

*Approximate Fee: \$20.56 per semester*

COURSE DESCRIPTION: This course will provide the unique opportunities for students to work with technological devices that involve communication technology. The students will work with digital editing software, computer-editing software, silk-screening techniques, Microsoft Office products, and presentation software. The class will work extensively with lab activities that will produce projects for TV, public announcements, publications and presentations. Required texts/supplies: Communication Technology Book (classroom set).

### GRAPHIC IMAGING TECHNOLOGY

*Printing - Year One (2 hrs) (52022)*  
*2 semesters, 2 credits per semester (2 periods)*  
*Grades 10-12*  
*Approximate cost per semester: \$10.00*  
*Meets requirements of: THD, AHD, Core 40*  
*Recommendations(s): 52001 Introduction to Communications or 52002 Multimedia Communications - Year One*

**COURSE DESCRIPTION:** C4 Printing is a program of instruction to prepare students for entry-level positions in the printing industry. The students receive extensive exposure to planning, electronic imaging/publishing, layout, design, typography, photography, plate making, presswork, and finishing. Customer relations, attitudes, and lifelong learning are also stressed with the goal in mind of future employment in supervisory or ownership positions in the printing industry. The beginning year will be equipment and processes learning experience. The year will include developing typical forms that are required by the general public from a commercial printer. The students will learn to use all equipment in the classroom.

### PRINTING - YEAR TWO (2 HRS) (52032)

*2 semesters, 2 credits per semester (2 periods)*  
*Grades 11-12*  
*Approximate cost per semester: \$10.00*  
*Meets requirements of: THD, AHD, Core 40*  
*Prerequisite(s): 52022 Printing - Year One*

**COURSE DESCRIPTION:** All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.

**Course Description:** In the second year of printing more emphasis will be placed on color and full color process printing. Larger-sized projects to fit the larger offset presses will also be included. In the third year of printing the student will receive plans, compose to the purchaser's satisfaction and produce finished forms. Students will select paper, figure cuts, allow for spoilage and figure cost of plates, paper, ink and finishing. Third Year Options: Graphic Imaging Technology

### PRINTING PRACTICUM (3 HRS) (52043)

*2 semesters, 3 credits per semester (3 periods)*  
*Grade 12*  
*Approximate cost per semester: \$10.00*  
*Prerequisite(s): Students must have completed the C4 State-Approved sequence for Printing: 52022 Printing - Year One and 52032 Printing - Year Two*

**COURSE DESCRIPTION:** Upon successful completion of the first two years of Printing may be eligible to participate in a course where the student will prepare for the work place and receive plans, compose to the purchaser's satisfaction and produce finished forms. The student will select the paper, figure the cuts, allow for spoilage and figure the cost of plates, paper, ink and finishing.

### 3D COMPUTER ANIMATION AND VISUALIZATION

*3D Visualization & Animation - Year One (2 hrs) (52212)*  
*2 semesters, 2 credits per semester (2 periods)*  
*Grades 9-12*  
*Approximate cost per semester: \$28.44*  
*Meets requirements of: THD, AHD, Core 40*  
*Recommendation(s): 52001 Introduction to Communications or 52002 Multi Media Communications - Year One*  
*Dual Credit Agreement(s): Ivy Tech Community College VIS 209 3D Rendering & Animation (3 credits) All course requirements must be met.*  
*These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.*

**COURSE DESCRIPTION:** Computer Graphics students are visually oriented individuals who are interested in animation, modeling, graphics, engineering design, electronic publishing, and illustration. Computer Graphics introduces and explores three-dimensional animation techniques as used by the animation and graphics industry today. This course teaches the student the theories, elements, and software components used in the production of various types of rendered images, illustration, and animations. This course applies the use of 3D-computer animation, digital video output, and a variety of computer technologies to produce digital images. Course assignments stress the use of current strategies to solve two-dimensional layout and three-dimensional modeling problems. Students will be responsible for the design, development, and production of a graphics and a video based digital animation product. At the completion of the course the student will design a portfolio comprised of completed class projects.

### 3D COMPUTER ANIMATION & VISUALIZATION

*3D Visualization & Animation - Year Two (2 hrs) (52222)*  
*2 semesters, 2 credits per semester (2 periods)*  
*Grades 10-12*  
*Approximate cost per semester: \$28.44*  
*Meets requirements of: THD, AHD, Core 40*  
*Prerequisite(s): 52212 3D Visualization & Animation - Year One with a grade of C or above.*

**COURSE DESCRIPTION:** The second year program is a continuation of the first year program. Animation, modeling, graphics, engineering design, electronic publishing, and illustration will be studied in greater detail. 3D Computer Animation & Visualization

### 3D VISUALIZATION & ANIMATION - YEAR TWO (2 HRS) (52222)

*2 semesters, 2 credits per semester (2 periods)*  
*Grades 10-12*  
*Approximate cost per semester: \$46.88*  
*Meets requirements of: THD, AHD, Core 40*  
*Prerequisite(s): 52212 3D Visualization & Animation - Year One with a grade of C or above.*

**COURSE DESCRIPTION:** The second year program is a continuation of the first year program. Animation, modeling, graphics, engineering design, electronic publishing, and illustration will be studied in greater detail. Third Year Option: 3D Computer Animation & Visualization

### 3D VISUALIZATION & ANIMATION PRACTICUM (3 HRS) (52233)

*2 semesters, 3 credits per semester (3 periods)*  
*Grades 11-12*  
*Approximate cost per semester: \$46.88*  
*Meets requirements of: THD, AHD, Core 40*  
*Prerequisite(s): Students must have completed the C4 State-Approved sequence for Computer Graphics: 52212 3D Visualization & Animation - Year One and 52222 3D Visualization & Animation - Year Two*

**COURSE DESCRIPTION:** Upon successful completion of the first two years of Computer Graphics may be eligible to participate in a course where the student will plan and implement projects approved by the instructor. The projects should demonstrate an advanced level of design competency in computer graphics and be performed in consultation with the teacher and industry advisors. Collaboration with representatives of industry government agencies, or community institutions is encouraged.

### TELECOMMUNICATIONS

The student will become acquainted with the many elements needed to compile a television show or other broadcast production. Areas of instruction include: camera operation, technical and audio operation, directing, producing, editing, graphics, broadcast writing and some television engineering. This course will use a college textbook and similar curriculum standards. Students will be able to use the resources of East High School television facilities and be involved with actual television productions. Having successfully taken this class, the student will be more than prepared to look into a college major with broadcasting or telecommunications.

**\* EACH CLASS IS A CORE 40 DIRECTED ELECTIVE AS A PART OF THE TECHNICAL CAREER AREA. THD & AHD ELECTIVE**



### TELEVISION PRODUCTION I (46101)

*1 Semester 1 Credit Grades 9-12*  
*Approximate Fee: \$22.65 per semester*  
*Prerequisite: None, however keyboarding experience preferred*

**COURSE DESCRIPTION:** This introductory course provides experience and skills necessary to function individually or in groups as a crew member in a major television studio or remote production. Laboratory exercises in the television facility include work in graphic design, computer telecommunications technology as well as visual presentations. Field trips and guest lectures will also provide a broad range of television experiences.

### TELEVISION PRODUCTION II (46201)

*1 semester 1 credit Grades 9-12*  
*Approximate Fee: \$22.65 per semester*  
*Prerequisite: Successful completion of Television Production I*

**COURSE DESCRIPTION:** This advanced course in television production focuses on even more creative telecommunications activities. Students will make presentations involving special effects, electronic graphics, computer editing, and producing/directing original programming.

### TELECOMMUNICATIONS - YEAR ONE (2 HRS) (46402)

*2 semesters, 2 credits per semester (2 periods) at East Grades 10-12*  
*Approximate cost per semester: \$22.65*  
*Meets requirements of: THD, AHD, Core 40*  
*Recommendation(s): 52001 Introduction to Communications or 52002 Multi Media Communications - Year One*

**COURSE DESCRIPTION:** Beginning Telecommunications provides instruction to develop and enhance competencies in various communications, marketing, media, production and technical functions and tasks performed by employees, including management personnel, in TV broadcasting and telecommunications occupations. Emphasis is placed on production, motion graphics (Adobe Creative Suite), programming, broadcast writing, broadcast reporting and broadcast equipment operation. Instructional strategies include hands-on activities where students create commercials, TV broadcasts, sportscast, news programs and other production related projects.

### TELECOMMUNICATIONS - YEAR TWO (2 HRS) (46412)

*2 semesters, 2 credits per semester (2 periods) at East Grades 10-12*  
*Approximate cost per semester: \$12.65*  
*Meets requirements of: THD, AHD, Core 40*  
*Prerequisite: Students must successfully complete 46402 Telecommunications - Year One*  
*Dual Credit Agreement(s): Vincennes University BCST 140 Beginning Television Production (3credits), MCOM 102 Audio/Video Production for Non-broadcasting (3credits). All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.*

**COURSE DESCRIPTION:** Intermediate Telecommunications continues the instruction to develop and enhance competencies in TV broadcasting and telecommunications occupations. Emphasis is placed on production, motion graphics (Adobe Creative Suite), programming, broadcast writing, broadcast reporting and broadcast operation. Instructional strategies include hands-on activities where students create commercials, TV broadcasts, sportscasts, new programs and other productions related projects.

### OLYMPIAN FLAME - ONE HOUR OPTION (46501)

*2 semesters 2 Credits*  
*Prerequisite: Application with Television Consultant*

**COURSE DESCRIPTION:** Individuals and student groups will create and present a student/school community morning news program. Students will help to write, graphically design, shoot, organize, and use all the telecommunications computer technologies involved with the creation of a morning newscast. Students will explore related career options through field trips to commercial broadcasting outlets.

## **OLYMPIAN FLAME - TWO HOUR OPTION (46502)**

*2 semesters, 2 credits per semester (2 periods) at East Grades 11-12*

*Meets requirements of: AHD, THD, Core 40  
Prerequisite(s): Teacher Invitation Only, 46101 Television Production I, 46202 Television Production II*

*Dual Credit Agreements: Vincennes University BCST 140 Beginning Television Production or MCOM 102 (3 credits). All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.*

**COURSE DESCRIPTION:** Individuals and student groups will create and present a student/school community morning news program. Students will help write, graphically design, shoot, organize and use all the telecommunications computer technologies involved with the creation of a morning newscast. Students will explore related career options through field trips to commercial broadcasting outlets.

## **COMPUTER TECHNOLOGY CLUSTER**

\*EACH CLASS IS A CORE 40 DIRECTED ELECTIVE AS A PART OF THE TECHNICAL CAREER AREA. THD & AHD ELECTIVE

### **COMPUTER REPAIR AND MAINTENANCE TECHNOLOGY**

*Introduction to Computer Technology (52310)  
2 semesters, 1 credit per semester Grades 9-12  
Approximate cost per semester: \$17.73 + anti-static wristband and supplies  
Meets requirements of: THD, AHD Elective, Core 40 Career Area*

**COURSE DESCRIPTION:** In part one, students will become familiar with computers and operating systems by studying computer based curriculum and completing hands-on laboratory exercise building and troubleshooting computer systems as well as installing and debugging software operating systems. In part two students will learn network operating systems such as Windows XP and Linux, install operating systems on a network server and configure computers to operate on the network. They will setup a computer as a web server. Upon successful completion of this course students will be prepared to take the A+ certification exams.

### **ADVANCED COMPUTER NETWORKING (53101)**

*2 semesters, 1 credit per semester Grades 10-12*

*Approximate cost per semester: \$28.00  
Meets requirements of: AHD, Core 40  
Prerequisite(s): Introduction to Computer Technology*

**COURSE DESCRIPTION:** Introduction to Computer/Wireless Networking is designed for students interested in the physical aspects of voice and data network cabling and installation. The course focuses on cabling issues related to data and voice connections. It provides an understanding of the industry and its worldwide standards, types of media and cabling, physical and logical networks, as well as signal transmission. Students will develop skills in reading network design documentation, determining and purchasing cabling equipment, pulling and mounting cable, managing cable, selecting wiring closets, terminating cable at patch panels, installing jacks, and testing cable. This hands-on, lab-oriented course stresses documentation, design, and installation issues, as well as laboratory safety, on-the-job safety, and working effectively in group environments. The course will help prepare students for the BICSI Registered Certified Installer, Level 1.

### **ELECTRONICS TECHNOLOGY/COMPUTER NETWORKING**

#### **ELECTRONICS TECHNOLOGY/COMPUTER NETWORKING - YEAR ONE (55212)**

*2 semesters, 2 credits per semester (2 periods)  
Grades 10-12  
Approximate cost per semester: \$95.15  
Meets requirements of: THD, AHD, Core 40  
Dual Credit Agreement(s): Ivy Tech Community College EECT 101 Introduction to Electronics, EECT 112 Digital I, INDT 113 Basic Electricity, and EECT 111 Introduction to Circuits Analysis (12 credits) upon completion of 55212. All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.*

**COURSE DESCRIPTION:** This course has a computer based learning format. Students design, build, and test electronic circuits on a computer before wiring them in real world, hands on laboratory activities. The beginning

year of the program involves study in the fundamentals necessary for any electronics technology career. Included are basic D.C. and digital circuits, schematic reading, soldering, solid-state devices and usage of test equipment such as digital multi-meters, function generators, oscilloscopes, and power supplies. Students are given the unique opportunity to participate on an engineering design team(s). This team will design and build a robot to compete in the US FIRST robotic competition.

#### **ELECTRONICS TECHNOLOGY/COMPUTER NETWORKING - YEAR TWO (55222)**

*2 semesters, 2 credits per semester (2 periods)  
Grades 11-12  
Approximate cost per semester: \$22.89  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 55212 Electronics Technology/Computer Networking - Year One  
Dual Credit Agreement(s): Ivy Tech Community College INDT 103 Motor and Motor Controls, EECT 121 Electronics Circuits Analysis and EECT 127 Industrial Electronics. (9 credits) upon completion of 55212 and 55222. All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.*

**COURSE DESCRIPTION:** This course has a computer based learning format. Students will study basic solid state theory and application. Beginning the second semester students will study Industrial Electronic Systems. This study will include Industrial Solid State devices, Motors/Motor Control, and Programmable Logic Controllers (PLC's) Opportunities for leadership skills, exposure to working in a team based work system, and applications of technology will be given through participation in the robot building activities and contests. Further opportunities can be gained through the Skills USA program. Students can also earn Certificates of Technical Achievement.

Third Year Option Electronics Technology/Computer Networking

#### **ELECTRONICS TECHNOLOGY/COMPUTER NETWORKING PRACTICUM (55233)**

*2 semesters, 3 credits per semester (3 periods)  
Grade 12  
Approximate cost per semester: \$26.58  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 55222 Electronics Technology/Computer Networking - Year Two*

**COURSE DESCRIPTION:** Upon successful completion of the first two years, students may be eligible to participate in a course where the student will continue electronics training and education. Those successfully completing this segment of the Electronics Technology program will in many cases be fully qualified and prepared to work in the field of electronics at an entry level technician job. The first semester students will continue their study of Industrial Electronics. They will examine PLC's and PLC programming. They will also receive advanced training in motor control involving variable frequency AC motor drives. They will further be prepared for a career in electronics by receiving the ETA Associates exam to become a certified electronics technician. Students in this program are eligible to participate in the School-to-Work program. Cummins Inc. and other local companies have partnered with C4 to provide real world work experience for our students.

### **CONSTRUCTION ENGINEERING TECHNOLOGY**

Introduction to Construction Engineering Technology (CET) is a course of study examining many aspects of the construction, engineering and design industries. Students will complete minimum competencies relating to general construction before selecting a specific area of study. Technical areas of study include architecture, architectural drafting, construction management, carpentry, masonry, electrical systems, mechanical systems, interior design and surveying. Students will design, manage and build various projects in-group activities taking place in the classroom and on the construction site. CET is open to students grades 9-12 interested in pursuing careers in architecture, engineering or construction. Students may enroll from 1-3 hours of CET in either the morning or afternoon sessions. Those students wishing to gain construction site experience should plan to enroll for 2- 3 hours during the junior and senior years. Articulation with postsecondary institutions has been established for program graduates. \*ALL CET CLASSES MEET THE THD & AHD ELECTIVE AND CORE 40 CAREER AREA

## **BUILDING TRADES TECHNOLOGY**

### **CONSTRUCTION ENGINEERING TECHNOLOGY (CET I) - YEAR ONE (2 HRS) (54112)**

*2 semesters, 2 credits per semester (2 periods)  
Grades 9-12  
Approximate cost per semester: \$12.12  
Meets requirements of: THD, AHD, Core 40*

### **TECHNOLOGY (CET II) - YEAR TWO (2 HRS) (54122)**

*2 semesters, 2 credits per semester (2 periods)  
Grades 10-12  
Approximate cost per semester: \$14.24  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 54112 Construction Engineering Technology - Year One  
Recommendation(s): It is preferable for the students to enroll in the 3 hour option to insure completion of certification requirements and mastery of skills.*

### **CONSTRUCTION ENGINEERING TECHNOLOGY (CET II) -YEAR TWO (3 HRS) (54123)**

*2 semesters, 3 credits per semester (3 periods)  
Grades 10-12  
Approximate cost per semester: \$12.12 + tool belt & supplies  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 54112 Construction Engineering Technology - Year One  
Dual Credit Agreement(s): For completion of 54112 or 54122/54123- Vincennes University CNST 100 Construction Seminar (1 credit), CNST 120 Construction Safety (2 credits) and CNST 261 The Indiana Residential Code for One-and Two-Family Dwellings (3 credits). All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.*

### **CONSTRUCTION ENGINEERING TECHNOLOGY (CET III) -YEAR THREE (2HRS) (54132)**

*2 semesters, 2 credits per semester (2 periods)  
Grades 11-12  
Approximate cost per semester: \$10.00 + tool belt & supplies  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 54112 Construction Engineering Technology - Year One and 54122/54123 Construction Engineering Technology - Year Two  
Recommendation(s): It is preferable for students to enroll in the 3 hour option to insure completion of certification requirements and mastery of skills.*

### **CONSTRUCTION ENGINEERING TECHNOLOGY (CET III) -YEAR THREE (3 HRS) (54133)**

*2 semesters, 3 credits per semester (3 periods)  
Grades 11-12  
Approximate cost per semester: \$10.00 + tool belt & supplies  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 54112 Construction Engineering Technology - Year One and 54122/54123 Construction Engineering Technology - Year Two*

Note: Up to six (6) months of apprenticeship credit available with the completion of three years and passage of a written test and a performance evaluation through the Indiana-Kentucky Regional Council of Carpenters Joint Apprenticeship and Training Fund.

### **INTRODUCTION TO ARCHITECTURAL ENGINEERING & DRAWING (AED)**

This is a course of study that will explore residential and commercial structure design. Students will utilize architectural and engineering practices in the design of residential structures at the beginning and intermediate levels. Course work involves the construction of a drawing set and required engineering of structural components and systems. Students will utilize technical research skills in the acquisition of current construction products and materials. Course work will utilize AutoCAD, Architectural Desktop, Microsoft Office, and Internet Explorer software. A strong background in basic mathematics and geometry is required. Architectural and engineering course work can be continued to the advanced level, exploring commercial structure design and engineering. Architectural Engineering & Design is course work designed for the individual interested in pursuing a career in the areas of architecture, architectural drafting, structural engineering or construction management. This course will provide the foundation for post-secondary study and or entry into a technical career. Information from course work in this area can be applied to a variety of careers in and related to the construction industry.

## ARCHITECTURAL DRAFTING

\*ALL AED CLASSES MEET THD, AHD ELECTIVE AND CORE 40 CAREER AREA.

### INTRODUCTION ARCHITECTURAL ENGINEERING DRAWING (AED I) (1 HR) (54011)

2 semesters, 1 credit per semester Grades 9-12  
Approximate cost per semester: \$10.00  
Meets requirements of: THD, AHD, Core 40

### ARCHITECTURAL ENGINEERING DRAWING (AED I) - YEAR ONE (2 HRS) (54012)

2 semesters, 2 credits per semester (2 periods)  
Grades 9-12  
Approximate cost per semester: \$10.00  
Meets requirements of: THD, AHD, Core 40

### ARCHITECTURAL ENGINEERING DRAWING (AED II) - YEAR TWO (2 HRS) (54022)

2 semesters, 2 credits per semester (2 periods)  
Grades 10-12  
Approximate cost per semester: \$10.00  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 54011 Introduction to Architectural Engineering Drawing or 54012 Architectural Engineering Drawing - Year One  
Dual Credit Agreement(s): Ivy Tech Community College DESN 102 Technical Graphics, DESN 103 CAD Fundamentals, DESN109 Construction Material and Specifications (9 credits with a grade of C or better). All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma Academic Honors Diploma.

### ARCHITECTURAL ENGINEERING DRAWING (AED III) - PRACTICUM (3 HRS) (54033)

2 semesters, 3 credits per semester (3 periods)  
Grades 11-12  
Approximate cost per semester: \$10.00  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 54011 Introduction to Architectural Engineering Drawing or 54012 Architectural Engineering Drawing - Year One and 54021 or 54022 Architectural Engineering Drawing - Year Two (C4/Counselor/Sponsoring teacher approval)  
Meets requirements of: THD, AHD, Core 40

COURSE DESCRIPTION: Upon successful completion of the first two years of Architectural Engineering Drawing students may be eligible to participate in a course where the student will gain knowledge in research, critical thinking, applying career concepts, team building, business management and public speaking. Students are also involved our global community. Credits may be earned after completion of work requirements and with counselor and teacher approval.

## ENGINEERING MANUFACTURING

### ADVANCED MANUFACTURING (MSSC CERTIFICATION) (55000)

2 semesters, 1 credit per semester Grades 11-12  
Approximate cost per semester: \$10.00  
Meets requirements of: THD, AHD, Core 40  
Recommendation(s): Completion of at least 2 credits in an advanced manufacturing class; completion of 4 credits preferred  
Dual Credit Agreements: ADMF 101 Key Principles of Advanced Manufacturing; ADMF 102 Technology in Advanced Manufacturing (6 credits)

COURSE DESCRIPTION: MSSC is preparation for juniors and seniors interested in a career in Advanced Manufacturing. Core competencies include analytical problem solving, math, computer skills, literacy, team building and communication skills. The class has four components: Manufacturing processes and production, maintenance awareness, quality and continuous improvement and safety. It is best integrated with other classes in the Manufacturing Cluster (Project Lead the Way, Drafting, Electronics, Machine Trades and Welding). Students will develop high performance manufacturing skills through self-paced studies, on-line labs, presentations and individual/group activities. May be scheduled as Independent Study.

### BLUEPRINT READING AND TECHNICAL MEASUREMENT (55021)

1 Semester 1 Credit Grades 9-12  
Meets requirements of: THD, AHD, Core 40

COURSE DESCRIPTION: A course designed for students pursuing areas which utilize technical illustrations and precision measurement. Students will develop the skills necessary to read and evaluate the information illustrated on technical drawings. Illustrations for the

areas of machining, drafting, electronics, construction and welding are the focus of content. Students will also develop skills relating to precision measurement and employ basic mathematics computations to solve technical problems.

### ELECTRONICS & POWER SYSTEMS TECHNOLOGY (55031)

2 semesters, 1 credit per semester Grades 9-12  
Approximate cost per semester: \$18.60  
Meets requirements of: THD, AHD Elective, Core 40

COURSE DESCRIPTION: This course is designed to give the students a solid background in electronics, internal combustion engines. Students study electronics theory; schematic reading; building and controlling electronic circuits; component functioning; the parts and function of internal combustion engines. Students receive both theory and hands-on experience in all of the above areas. This course is designed for students who are interested in a career in a technical field or engineering.

### PROJECT LEAD THE WAY - A PRE-ENGINEERING PROGRAM

PLTW's Pathway To Engineering (PTE) is designed to encompass all four years of high school. Courses are centered on activities that are hands-on and project-based. Students develop critical thinking and problem solving skills while using the same industry-leading 3D design software used by companies like Intel, Lockheed Martin and Pixar. They explore aerodynamics, manufacturing and alternative energy; and apply biological and engineering concepts related to biomechanics - think robotics. Students design, test, and actually construct circuits and devices such as smart phones and tablets, and work collaboratively on a culminating capstone project.

Project Lead The Way courses have dual credit options with several universities across the country. See a PLTW instructor or [www.pltw.org](http://www.pltw.org) for complete information.

9th Grade

(IED)

Introduction to Engineering & Design

10th Grade

(POE)

Principles of Engineering

11th Grade

CHOICE of ELECTIVE:

(DE) Digital Electronics

(CIM) Computer Integrated Manufacturing

(CEA) Civil Engineering & Architecture

12th Grade

(EDD)

Engineering Design & Development

### INTRODUCTION TO ENGINEERING DESIGN (PLTW) - YEAR 1 (55071)

2 semesters, 1 credit per semester Grades 9-12  
Approximate cost per semester: \$25.17  
Meets requirements of: THD, AHD, Core 40  
Recommendation(s): Algebra  
Dual Credit Agreement(s): Ivy Tech Community College DESN 102 Technical Graphics (3 Credits)  
All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.

COURSE DESCRIPTION: This is an introductory course that 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, are state of the art and are currently being used by engineers throughout the United States.

### PRINCIPLES OF ENGINEERING (PLTW) - YEAR 2 (55081)

2 semesters, 1 credit per semester Grades 10-12  
Approximate cost per semester: \$10.00  
Meets requirements of: THD, AHD, Core 40  
Recommendation(s): Algebra I and Geometry  
Prerequisite(s): Introduction to Engineering Design or Instructor Approval  
Dual Credit Agreement(s): Ivy Tech Community College ADMF 115 Processes and Materials (3 credits) All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.

COURSE DESCRIPTION: This broad based survey course is 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 post-secondary education programs and engineering careers. They will explore various engineering systems and manufacturing processes. They will also learn how engineers address concerns about the social and political consequences of technological change

### COMPUTER INTEGRATED MANUFACTURING (PLTW) - YEAR 3 (55051)

2 semesters, 1 credit per semester Grades 11-12  
Approximate cost per semester: \$10.00  
Meets requirements of: THD, AHD, Core 40  
Recommendation(s): Algebra I, Geometry  
Prerequisite(s): Introduction to Engineering Design and Principles of Engineering or Instructor Approval.  
Dual Credit Agreement(s): Ivy Tech Community College ADMF 116 Automation and Robotics (3 credits) All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.

COURSE DESCRIPTION: This course teaches the fundamentals of computerized manufacturing technology. It builds on the solid-modeling skills developed in the Introduction to Engineering Design and Principles of Engineering courses. Students use 3-D computer software to solve design problems. They assess their solutions through mass propriety analysis (the relationship of design, function and materials), modify their designs and use prototyping equipment to produce 3-D models. The course includes these integrated concepts:

Computer Modeling: Students use 3-D software for mass property analysis; Computer Numerical Control (CNC) Equipment: Students develop an understanding of the operating procedures and programming capabilities of machine tools; Computer-aided Manufacturing (CAM): Students convert computer-generated geometry into a program to direct the operation of CNC machine tools; Robotics: Students program robots to handle materials in assembly-line operations. Flexible Manufacturing Systems: Teams of students design manufacturing work cells and tabletop factories to solve complex problems that arise in integrating multiple pieces of computer-controlled equipment.

### DIGITAL ELECTRONICS (PLTW) - YEAR 3 (55061)

2 semesters, 1 credit per semester Grades 10-12  
Approximate cost per semester: \$35.78  
Meets requirements of: THD, AHD, Core 40  
Recommendation(s): Algebra I, Geometry, Introduction to Engineering Design and Principles of Engineering or Instructor Approval  
Dual Credit Agreement(s): Ivy Tech Community College ADMF 113 Electrical and Electronic Principles (3 credits) All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.

COURSE DESCRIPTION: This course introduces students to applied digital logic, a key element of careers in engineering and engineering technology. The course explores the smart circuits found in watches, calculators, video games and computers. Students use industry-standard computer software in testing and analyzing digital circuitry. They design circuits to solve problems, export their designs to a printed circuit auto-routing program that generates printed circuit boards, and use appropriate components to build their designs. Students use mathematics and science in solving real-world engineering problems. This course covers several topics, including: Analog and digital fundamentals; Number systems and binary addition; Logic gates and functions; Boolean algebra and circuit design; Decoders, multiplexers and de-multiplexers.

## ENGINEERING DESIGN AND DEVELOPMENT (PLTW) - YEAR 4 (55091)

2 semesters, 1 credit per semester Grade 12  
Approximate cost per semester: \$10.00  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): Completion of PLTW sequence of courses: IED (Introduction to Engineering) and POE (Principles of Engineering), and choice of DE (Digital Electronics), CIM (Computer Integrated Manufacturing) or CEA (Civil Engineering & Architecture)

COURSE DESCRIPTION: EDD is an engineering research course in which students work in teams to research, design, and construct a solution to an open-ended engineering problem. Students apply principles developed in the four preceding courses and are guided by a community mentor. They must present progress reports, submit a final written report and defend their solutions to a panel of outside reviewers at the end of the school year.

## CIVIL ENGINEERING AND ARCHITECTURE (PLTW) (55101)

2 semesters, 1 credit per semester Grades 11-12  
Approximate cost per semester: \$10.00  
Meets requirements of: THD, AHD, Core 40  
Recommendation(s): Taken concurrently with Digital Electronics  
Prerequisite(s): Introduction to Engineering Design and Principles of Engineering or Instructor Approval  
Dual Credit Agreement(s): Ivy Tech Community College DESN 105 Architectural Design I (3 credits) All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.

COURSE DESCRIPTION: This course introduces students to the fundamental design and development aspects of civil engineering and architectural planning activities. Application and design principles are used in conjunction with mathematical and scientific knowledge. Computer software programs allow students the opportunity to design, simulate, and evaluate the construction of buildings and communities. During the planning and design phases, instructional emphasis is placed on related transportation, water resource, and environmental issues. Activities include the preparation of cost estimates as well as a review of regulatory procedures that affect project design.

## DRAFTING & COMPUTER AIDED DESIGN

Computer Aided Design (CAD) - Year One (2 hrs) (55112)  
2 semesters, 2 credits per semester (2 periods) Grades 9-12  
Approximate cost per semester: \$19.84  
Meets requirements of: THD, AHD, Core 40  
Recommendation(s): Algebra 1-2

COURSE DESCRIPTION: This program is for those students interested in becoming engineers, draftspersons, and computer-aided drafting (CAD) technicians. This lab intensive course introduces the student to computer-aided design and drafting. The course utilizes the latest in CAD software and hardware.

## COMPUTER AIDED DESIGN (CAD) - YEAR TWO (2 HRS) (55122)

2 semesters, 2 credits per semester (2 periods) Grades 10-12  
Approximate cost per semester: \$19.84  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 55112 Computer Aided Design CAD - Year One  
Recommendation(s): Algebra 1-2  
Dual Credit Agreement(s): Ivy Tech Community College DESN 102 Technical Graphics, DESN 103 CAD Fundamentals, TECH 101 Processes and Materials (9 credits) upon completion of 55112 and 55122. All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.

COURSE DESCRIPTION: This lab intensive course examines the drawing commands and productivity techniques necessary to effectively create and manipulate detail, assembly, and working drawings. It provides students with experience in the fundamentals of 3D wire frame and the creation of surface and solid models. The course covers the principles of parametric feature base solid modeling and customizing CAD software. Basic rendering techniques are presented. Students gain a working knowledge of personal computers and an understanding of drafting principles. The course utilizes the latest in CAD software and hardware. The student

who successfully completes the program has three alternatives after completing high school:

- (1) Enter college with a good foundation for engineering.
- (2) Enter the world of work and continue education as a part-time student.
- (3) Enter the world of work as an apprentice draftsman. School-to-work opportunities are available for senior students who qualify.

## COMPUTER AIDED DESIGN (CAD) PRACTICUM (3 HRS) (55133)

2 semesters, 3 credits per semester (3 periods) Grades 11-12  
Approximate cost per semester: \$29.68  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 55122 Computer Aided Design CAD - Year Two  
Recommendation(s): Algebra 1-2

COURSE DESCRIPTION: This course is structured to provide the student the opportunity to effectively customize CAD software to meet specific discipline related requirements. Advance modeling and rendering techniques are presented. Students will prepare for the AutoCAD Certification Exam. School-to-work opportunities are available to senior students who qualify.

## ELECTRONICS TECHNOLOGY/COMPUTER NETWORKING

Electronics Technology/Computer Networking - Year One (2 hrs) (55212)  
2 semesters, 2 credits per semester (2 periods) Grades 10-12  
Approximate cost per semester: \$95.15  
Meets requirements of: THD, AHD, Core 40  
Dual Credit Agreement(s): Ivy Tech Community College EECT 101 Introduction to Electronics, EECT 112 Digital I, INDT 113 Basic Electricity, and EECT 111 Introduction to Circuits Analysis (12 credits) upon completion of 55212. All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.

COURSE DESCRIPTION: Students design, build, and test electronic circuits on a computer before wiring in the real world, hands on laboratory activities. Included are basic D.C. and digital circuits, schematic reading, soldering, solid-state devices and usage of test equipment such as digital millimeters, function generators, oscilloscopes, and power supplies. Opportunities for leadership skills, team building, and applications of technology will be given through participation in the robot building activities and contests including FIRST Robotics and Skills USA.

## ELECTRONICS TECHNOLOGY/COMPUTER NETWORKING - YEAR TWO (2 HRS) (55222)

2 semesters, 2 credits per semester (2 periods) Grades 11-12  
Approximate cost per semester: \$22.89  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 55212 Electronics Technology/Computer Networking - Year One  
Dual Credit Agreement(s): Ivy Tech Community College EECT 101 Introduction to Electronics, EECT 112 Digital I, INDT 113 Basic Electricity, and EECT 111 Introduction to Circuits Analysis (12 credits) upon completion of 55212. All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.

COURSE DESCRIPTION: First semester students will build, test and troubleshoot computer systems. They will also be given the opportunity to become a certified A+ computer technician. Second semester students will study Industrial Electronic Systems including Industrial Solid State devices, Motors/Motor control and the Programmable Logic Controls (PLC's). Opportunities for leadership skills, exposure to working in a team based work system and application of technology will be given through participation with FIRST Robotics and Skills USA.

## ELECTRONICS TECHNOLOGY PRACTICUM (3 HRS) (55233)

2 semesters, 3 credits per semester (3 periods) Grade 12  
Approximate cost per semester: \$35.78  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 55212 Electronics Technology/Computer Networking - Year One and 55222 Electronics Technology/Computer Networking - Year Two

COURSE DESCRIPTION: Upon successful completion of the first two years, students may be eligible to participate in a course where the student will continue electronics training and education. Those successfully completing this segment of the Electronics Technology program will in many cases be fully qualified and prepared to work in the field of electronics at an entry level technician job. The first semester students will continue their study of Industrial Electronics. They will examine PLC's and PLC programming. They will also receive advanced training in motor control involving variable frequency AC motor drives. They will further be prepared for a career in electronics by receiving the ETA Associates exam to become a certified electronics technician. Students in this program are eligible to participate in the School-to-Work program. Cummins Inc. and other local companies have partnered with C4 to provide real world work experience for our students.

## PRECISION MACHINE TECHNOLOGY

### INDUSTRIAL PRODUCTION (1 HR) (55041)

2 semesters, 1 credit per semester Grades 9-12  
Approximate cost per semester: \$10.00  
Meets requirements of: THD, AHD, Core 40

COURSE DESCRIPTION: This course will explore various materials and processes currently employed in industry. Processes will include both manual and computer numerical control to transform materials. This course is a one-hour option for students to explore machine trades. Students will be introduced to various measurements and machines.

### MACHINE TRADES - YEAR ONE (2 HRS) (55312)

2 semesters, 2 credits per semester (2 periods) Grades 10-12  
Approximate cost per semester: \$69.57  
Meets requirements of: THD, AHD, Core 40

Dual Credit Agreement(s): Ivy Tech Community College ADMF 115 Process & Materials, MTTC 102 Turning Processes I, MTTC 103 Milling Processes I and MTTC 101 Introduction to Machining (12 credits) upon completion of 55312. All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.

COURSE DESCRIPTION: The first year course is offered to the beginning machine trades student with emphasis on lathe work, drill press, tool grinding, basic milling operations, surface grinding, CNC programming, and precision measurement. Blueprint reading and basic math are also covered.

### MACHINE TRADES - YEAR TWO (2 HRS) (55322)

2 semesters, 2 credits per semester (2 periods) Grades 11-12  
Approximate cost per semester: \$69.57

Machine Trades - Year Two (3 hrs) (55323)  
2 semesters, 3 credits per semester (3 periods) Grades 11-12

Approximate cost per semester: \$70.27  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 55312 Machine Trades - Year One  
Dual Credit Agreement(s): Ivy Tech Community College MTTC 208 CNC Programming I, MTTC 105 Abrasive Processes I and MTTC 110 Turning and Milling Processes upon completion of 55312 and 55322/55232. All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.

COURSE DESCRIPTION: The second year program is for juniors and seniors who have successfully completed beginning Machine Trades. This class is offered to the intermediate machine trades student with an emphasis on advanced lathe work, milling operations, surface grinding, precision measurement, math and blueprint reading. CNC programming and operating CNC lathes and mills is also taught. Qualified students are eligible for a school-to-work placement in the community.

## **MACHINE TRADES PRACTICUM (3 HRS) (55333)**

2 semesters, 3 credits per semester (3 periods)

Grade 12

Approximate cost per semester: \$69.57

Meets requirements of: THD, AHD, Core 40

Prerequisite(s): 55312 Machine Trades - Year One and 55322 Intermediate Machine Trades or 55323 Intermediate Machine Trades

Dual Credit Agreement(s): Ivy Tech Community College MTTC 209 CNC Programming II (3 credits) upon completion of 55333. All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.

**COURSE DESCRIPTION:** The third year program is for advanced machine trades students. Study includes advanced lathe work, milling operations, surface grinding, and computerized numerical control milling. Precision measurement, advanced blueprint reading, and industrial math are also taught. CNC programming and operating are taught first, second, and third year. Job opportunities in machine trades are tremendous. Qualified students are eligible for a school-to-work placement in the community.

## **WELDING TECHNOLOGY**

### **WELDING - YEAR ONE (2 HRS) (55412)**

2 semesters, 2 credits per semester (2 periods)

Grades 10-12

Approximate cost per semester: \$17.27

Meets requirements of: THD, AHD, Core 40

**COURSE DESCRIPTION:** Welding class experiences can prepare a student for a career in welding or supplement other careers such as engineering, machining, heavy construction, etc. Students will learn Arc and Mig welding in the flat, horizontal and vertical positions. Lab activities are patterned after a project-oriented job-shop. This format is used to encourage development of leadership, team building, and problem solving skills essential in the workplace. Related areas include weld inspection, power equipment, work attitude, and ethics.

### **WELDING - YEAR TWO (2 HRS) (55422)**

2 semesters, 2 credits per semester (2 periods)

Grades 11-12

55423 Welding - Year Two (3 Hours)

2 semesters, 3 credits per semester (3 periods)

Grades 11-12

Approximate cost per semester: \$17.27

Meets requirements of: THD, AHD, Core 40

Prerequisite(s): 55412 Welding - Year One

Dual Credit Agreement(s): Ivy Tech Community College WELD 100 Welding Processes, WELD 101 Gas Welding and WELD 103 Arc Welding I (9 credits) upon completion of 55422/55423. All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma Academic Honors Diploma.

**COURSE DESCRIPTION:** Students in this class will be prepared for Advanced Placement. Students may take this class as a 2 or 3 hour option. Students interested in the Advanced Placement should enroll in the 3 hour option and preferably be a senior. Welding class experiences can prepare a student for a career in welding or supplement other careers such as engineering, machining, heavy construction, etc. Student will learn Stick welding, Mig welding and Tig welding in the vertical and overhead positions as well as some cutting processes. The cutting processes will include oxy-acetylene and plasma cutting. Lab activities are patterned after a project-oriented job-shop. This format is used to encourage development of leadership, team building and problem solving skills essential in the workplace. Related areas include shop safety, general shop equipment, tape measure and blueprint reading as well as attitude and work ethics.

### **WELDING PRACTICUM (3 HRS) (55433)**

2 semesters, 3 credits per semester (3 periods)

Grade 12

Approximate cost per semester: \$17.27

Meets requirements of: THD, AHD, Core 40

Prerequisite(s): 55412 Welding - Year One and 55422 or 55423 Welding - Year Two

**COURSE DESCRIPTION:** Upon successful completion of the first two years of Welding, students may be eligible to participate in a course where the student will be prepared for Advanced Placement and/or advanced welding techniques. Lab activities are patterned after a project-oriented job-shop and students will be graded on the quality of projects that they get done and/or their Advanced Placement Evaluations. As advanced students they will be overseeing younger students and learning

management skills and team building efforts. At the end of a student's senior year or third year of welding, an AWS welding certification is offered at the student's expense. This certificate can be used to fulfill requirements for a Technical Honors Diploma.

## **HEALTH CAREERS EDUCATION**

### **INTRODUCTION TO HEALTH CARE SYSTEMS-1 (56110)**

1 semester, 1 credit per semester Grades 9-12

Approximate cost per semester: \$18.89

Introduction to Health Care Systems-2 (56111)

1 semester, 1 credit per semester Grades 9-12

Approximate cost per semester: \$18.89

Meets requirements of: THD, AHD, Core 40

Note: Meets Health graduation requirement with both semesters of 56110 and 56111.

**COURSE DESCRIPTION:** This course is designed to assist the student in making a realistic career choice in the health care field. The student has the opportunity to learn about the health care system and to explore careers through hands-on lab experiences, guest speakers, field trips and community activities. Students will learn to assess the human body and take vital signs: blood pressure, pulse, respiration, height, weight, etc. Careers are related to the study of the structure and function of the body in health and disease and prevention of health problems. In addition, the students complete the American Red Cross course in Adult CPR and First Aid.

### **MEDICAL TERMINOLOGY (56211)**

1 semester, 1 credit per semester Grades 11-12

Approximate cost per semester: \$102.81

Meets requirements of: THD, AHD, Core 40 Career Area

Prerequisite(s): Biology is required

Dual Credit Agreement(s): Ivy Tech State College HLHS 101 Medical Terminology (3 credit with a grade of C or better) All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma.

**COURSE DESCRIPTION:** Learn a new language in this one semester elective. Students will learn to define and use medical terminology correctly and will become proficient in pronouncing and spelling medical terms. Students will utilize videos, presentations and hands-on experiences to enhance learning. This course will provide a solid foundation in medical terminology for any student considering a health career.

About "Project Lead the Way" (PLTW)

The Project Lead the Way Biomedical Sciences program is a dynamic high school program which uses real-world problems to engage and challenge students. Students interested in math, science and the human body will find the PLTW Biomedical Sciences program a great introduction to numerous medical fields. It also teaches how the skills they learn are used in the biomedical sciences. PLTW

### **PRINCIPLES OF THE BIOMEDICAL SCIENCES (56101)**

2 semesters, 1 credit per semester Grades 9-12

Approximate cost per semester: \$34.18

Meets requirements of: THD, AHD, Core 40

Prerequisites: Enrolled in Biology, college prep math and science

Note: This course counts towards Core 40 science credits.

Dual Credit Agreement(s): Indiana University Purdue University Indianapolis (3 credit hours with 80% on PLTW end of course assessment). These credits will count toward the requirements of the Indiana Technical Honors Diploma.

**COURSE DESCRIPTION:** Students explore the concepts of human medicine and are introduced to research processes, using applied math and science to solve problems. Hands-on, interactive projects enable students to investigate human body systems and various health conditions, including heart disease, diabetes, sickle-cell disease, hypercholesterolemia and infectious diseases. Key biological concepts include 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.

## **PLTW HUMAN BODY SYSTEMS (56201)**

2 semesters, 1 credit per semester Grades 10-12

Approximate cost per semester: \$34.18

Meets requirements of: THD, AHD, Core 40

Note: This course counts towards Core 40 science credits.

Prerequisites: College prep math and science Dual Credit Agreement(s): Indiana University Purdue University Indianapolis (3 credit hours with 80% on PLTW end of course assessment). These credits will count toward the requirements of the Indiana Technical Honors Diploma.

**COURSE DESCRIPTION:** Students will learn anatomy and physiology of the human body through a hands-on approach. Using real-world cases, students take the role of a biomedical professional to work together to solve medical mysteries. Hands-on, interactive projects include designing experiments, investigating the function and structures of the human body through dissections, clay modeling, laboratory analysis and data acquisition software usage to monitor body functions such as reflex, muscle movement and lung capacities. Students will learn to assess and monitor the body systems and how they work together.

## **PLTW MEDICAL INTERVENTIONS (56301)**

2 semesters, 1 credit per semester Grades 11-12

Approximate cost per semester: \$34.18

Meets requirements of: THD, AHD, Core 40

Note: This course counts towards Core 40 science credits.

Prerequisites: Human Body Systems and/or Anatomy and Physiology

Dual Credit Agreement(s): Indiana University Purdue University Indianapolis (3 credit hours with 80% on PLTW end of course assessment).

These credits will count toward the requirements of the Indiana Technical Honors Diploma.

**COURSE DESCRIPTION:** Students investigate various medical interventions that extend and improve the quality of life including gene therapy, pharmacology, surgery, prosthetics, rehabilitation and supportive care. The course explores the design and development of various medical interventions such as vascular stents, cochlear implants and prosthetic limbs. In addition, students review the history of organ transplants and gene therapy and stay updated on cutting-edge developments via current scientific literature. Using 3D imaging, data acquisition software and current scientific research, students design a product that can be used as a medical intervention.

## **BIOMEDICAL INNOVATION (56401)**

2 semesters, 1 credit per semester Grades 11-12

Approximate cost per semester: \$34.18

Meets requirements of: THD, AHD, Core 40

Prerequisites: Human Body Systems, Anatomy and Physiology or Medical Interventions

Dual Credit Agreement(s): Indiana University Purdue University Indianapolis (3 credit hours with 80% on PLTW end of course assessment).

These credits will count toward the requirements of the Indiana Technical Honors Diploma.

**COURSE DESCRIPTION:** Biomedical Innovation is the fourth and final Project Lead the Way Biomedical Science course. It is intended to follow the third course, Medical Interventions. In this capstone course students will design and conduct experiments related to the diagnosis, treatment and prevention of disease or illness. They will apply their knowledge and skills to answer questions or to solve problems related to the biomedical sciences. They will work to design an effective emergency room, explore human physiology and design a medical innovation. They will investigate public health issues and forensic autopsy. They may work with a mentor or advisor from a university, hospital, physician's office or industry as they complete their work.

About Health Careers Training

The second largest industry in the United States is the health care field -- with over 400 career choices! Health services continue to be one of the fastest growing industries in the economy with job opportunities expected to grow from 40% to 100% in the next few years.

With Health Careers training a student can actually "try on" a health career in high school. The following courses provide the student with entry level training as a Dental Assistant, Nursing/Allied Health Assistant or Veterinary Assistant. The courses offer an excellent opportunity for employment, experience and dual credit toward college/technical training. The courses provide valuable exposure to students pursuing professional or technical health care careers, i.e. Registered Nurse, Licensed Practical Nurse, Physical Therapist, Pharmacy Technician, Dental Hygienist, Veterinary Technician, etc.

The focus of the first semester is classroom and laboratory training. Clinical (on-the-job) training is provided during the second semester. The student receives a certificate upon completion.

## VETERINARY

### HEALTH CAREERS TRAINING - VETERINARY YEAR ONE (2 HRS) (56512)

2 semesters, 2 credits per semester (2 periods) at East Grades 10-12

Approximate cost per semester: \$32.33 + uniform and supplies

Health Careers Training - Veterinary Year One (3 hrs) (56513)

2 semesters, 3 credits per semester (3 periods) at East Grades 10-12

Approximate cost per semester: \$32.33 + uniform and supplies

Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): Student must be able to provide own transportation second semester. Community placement is contingent upon meeting minimum standards and classroom performance. Students who do not meet those minimum standards may face loss of credit and should consider another course of study second semester.

Dual Credit Agreement(s): Ivy Tech Community College HLHS 100 Introduction to Health Careers (3 credit hours with a grade of C or better). All individual program requirements must be met.

These credits will count toward the requirements of the Indiana Technical Honors Diploma.

COURSE DESCRIPTION: This course provides entry level training as a Veterinary Assistant for students pursuing careers as Veterinarians, Veterinary Technicians, Veterinary Assistants, or other careers involving animals. The focus of the first semester is classroom and laboratory training. The student will have the opportunity to practice assisting with the physical exam, veterinary nursing care, animal restraint and assisting with surgical procedures. Second semester students will have the opportunity to receive clinical (on-the-job) training within the professional community. Clinical training placements include veterinary offices, animal shelters, humane societies, groomers and animal behavior and training facilities. The student will receive certification in CPR/First Aid/AED for the Professional Rescuer.

### HEALTH CAREERS TRAINING - VETERINARY YEAR TWO (2 HRS) (56522)

2 semesters, 2 credits per semester (2 periods) at East Grades 11-12

Approximate cost per semester: \$32.33 + uniform and supplies

Health Careers Training - Veterinary Year Two (3 hrs) (56523)

2 semesters, 3 credits per semester (3 periods) at East Grades 11-12

Approximate cost per semester: \$32.33 + uniform and supplies

Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 56312 or 56313 Health Careers Training or Veterinary Year One. Student must be able to provide own transportation. Community placement is contingent upon meeting minimum standards in classroom performance. Students who do not meet those minimum standards may face loss of credit and should consider another course of study second semester.

All individual program requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma.

COURSE DESCRIPTION: This course curriculum offers medical office training. Students also have the opportunity to advance learning in the veterinary field through clinical (on-the-job) training. Clinical placement begins early in the school year and continues until the end of the year.

Health Careers Training - Veterinary Assisting Year Two offers a wonderful opportunity for students to gain in-depth exposure to their potential health career as well as providing a solid foundation for employment and college/technical education. The student will receive certification in CPR/First Aid/AED for the Professional Rescuer.

## THIRD YEAR OPTION: VETERINARY

### HEALTH CAREERS PRACTICUM - VETERINARY (3 HRS) (56533)

2 semesters, 3 credits per semester East (3 periods) Grade 12

Approximate cost per semester: \$30.41 plus uniform and supplies

Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 56512 or 56513 Health Careers Training - Veterinary Year One and 56522 or 56523 Health Careers Training - Veterinary Year Two. Student MUST have prior approval from Health Careers instructor. Student must be able to provide own transportation. Community placement is contingent upon meeting minimum standards and classroom performance. Students who do not meet minimum standards may face loss of credit.

COURSE DESCRIPTION: This course is designed for students who are interested in receiving specialized training and/or employment in an entry level health career. Areas of specialized practicum training are based on the student's individual career objective. This course allows the student to start out on the clinical training site early in the first nine weeks and continue throughout the school year.

Health Careers Practicum - Veterinary Assisting offers a wonderful opportunity for students to gain in-depth exposure to their potential health career area as well as providing a solid foundation for employment and college/technical education.

## DENTAL

### HEALTH CAREERS TRAINING - DENTAL YEAR ONE (2 HRS) (56612)

2 semesters, 2 credits per semester (2 periods) at East Grades 10-12

Approximate cost per semester: \$131.87 + uniform and supplies

### HEALTH CAREERS TRAINING - DENTAL YEAR ONE (3 HRS) (56613)

2 semesters, 3 credits per semester (3 periods) at East Grades 10-12

Approximate cost per semester: \$131.87 + uniform and supplies

Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): Student must be able to provide own transportation second semester. Community placement is contingent upon meeting minimum standards and classroom performance. Students who do not meet those minimum standards will participate in classroom curriculum second semester.

Dual Credit Agreement(s): Ivy Tech Community College HLHS 100 Introduction to Health Careers, DENT 102 Dental Materials and Lab 1, DENT 115 Preclinical Practice I, DENT 116 Dental Emergencies and Pharm., DENT 118 Dental Radiology, DENT 122 Clinical Practicum I, DENT 123 Dental Anatomy, DENT 124 Preventive Dentistry/Diet Nutrition (18 credit hours with a grade of B- or better). All individual program requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma.

COURSE DESCRIPTION: This course provides the student entry-level training as a Dental Assistant. There is excellent opportunity for employment/experience toward college/technical training. The student will perform procedures in our simulated lab such as taking alginate impressions, sterilizing instruments using an autoclave, transferring instruments using the four-handed technique, and brushing and flossing teeth, just to name a few.

The first semester is classroom and simulated laboratory training. Clinical (on-the-job) training at a general dental office, working closely with the dental staff, is provided during school hours the second semester.

### HEALTH CAREERS TRAINING - DENTAL YEAR TWO (2 HRS) (56622)

2 semesters, 2 credits per semester (2 periods) at East Grades 11-12

Approximate cost per semester: \$32.01 + uniform and supplies

### HEALTH CAREERS TRAINING - DENTAL YEAR TWO (3 HRS) (56623)

2 semesters, 3 credits per semester (3 periods) at East Grades 11-12

Approximate cost per semester: \$32.01 + uniform and supplies

Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 56312 or 56313 Health Careers Training or Dental Year One. Student must be able to provide own transportation. Community placement is contingent upon meeting minimum standards in classroom performance. Students who do not meet those minimum standards may face loss of credit and should consider another course of study second semester.

Dual Credit Agreement(s): Ivy Tech Community College DENT 117 Dental Office Management, DENT 125 Preclinical Practice 2, DENT 129 Dental Materials and Lab 2, DENT 130 Clinical Practicum 2, DENT 131 Basic Integrated Science (15 credit hours with a grade of B- or better). All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma.

COURSE DESCRIPTION: This course provides the student with more extensive training as a Dental Assistant. There is excellent opportunity for employment/experience toward college/technical training. The student will perform procedures in our simulated lab such as placing orthodontic wires and preparing tray set-ups for periodontal, endodontic and surgical procedures. The first nine weeks is spent in classroom and simulated laboratory training. Clinical (on-the-job) training at specialty dental offices (i.e. periodontics, orthodontics, etc.) is provided during school hours the 2nd, 3rd and 4th nine weeks.

## THIRD YEAR OPTION: DENTAL

### HEALTH CAREERS PRACTICUM - DENTAL (3 HRS) (56633)

2 semesters, 3 credits per semester East (3 periods) Grade 12

Approximate cost per semester: \$30.41 + uniform and supplies

Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 56612 or 56613 Health Careers Training - Year One and 56622 or 56623 Health Careers Training - Year Two. Student MUST have prior approval from Health Careers instructor. Student must be able to provide own transportation. Community placement is contingent upon meeting minimum standards and classroom performance (student must maintain a B- or better). Students who do not meet minimum standards may face loss of credit.

COURSE DESCRIPTION: This is an excellent opportunity to increase the student's total dental clinical hours and provide the experience needed to enter into a postsecondary dental program. This course allows the student to start out on the clinical training site early in the first nine weeks and continue throughout the school year.

## NURSING

### HEALTH CAREERS TRAINING - NURSING YEAR ONE (2 HRS) (56712)

2 semesters, 2 credits per semester (2 periods) at East Grades 10-12

Approximate cost per semester: \$30.41 + uniform and supplies



## HEALTH CAREERS TRAINING - NURSING YEAR ONE (3 HRS) (56713)

2 semesters, 3 credits per semester (3 periods) at East Grades 10-12

Approximate cost per semester: \$30.41 + uniform and supplies

Meets requirements of: THD, AHD, Core 40

Prerequisite(s): Student must be able to provide own transportation second semester. Community placement is contingent upon meeting minimum standards and classroom performance. Students who do not meet those minimum standards will participate in classroom curriculum second semester.

Dual Credit Agreement(s): Ivy Tech Community College HLHS 100 Introduction to Health Careers, and HLHS 107 Nurse Aide Procedures, (8 credit hours with a grade of C or better). All individual program requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma.

**COURSE DESCRIPTION:** This course provides entry level training in nursing assisting and other allied health careers. At the completion of this course, students may receive certification as a Certified Nursing Assistant (C.N.A.) through the Indiana State Department of Health. Student will receive certification in CPR/First Aid/AED for the Professional Rescuer.

During the first semester, students learn hands-on skills in the classroom and simulated laboratory. These skills include: infection control measures, patient hygiene, nutrition, vital signs, patient movement, etc. Second semester, students receive clinical (on-the-job) experience in nursing or other allied health careers of the student's choice such as physical therapy, pharmacy, special education, etc.

Health Careers Training - Nursing/Allied Health Year One provides a wide range of entry level health care skills that gives students a solid foundation for employment and college/technical education. Students can earn up to (8) dual college credits.

## HEALTH CAREERS TRAINING - NURSING YEAR TWO (2 HRS) (56722)

2 semesters, 2 credits per semester (2 periods) at East Grades 11-12

Approximate cost per semester: \$30.41 + uniform and supplies

## HEALTH CAREERS TRAINING - NURSING YEAR TWO (3 HRS) (56723)

2 semesters, 3 credits per semester (3 periods) at East Grades 11-12

Approximate cost per semester: \$30.41 + uniform and supplies

Meets requirements of: THD, AHD, Core 40

Prerequisite(s): 56312 or 56313 Health Careers Training I. Student must be able to provide own transportation.

**COURSE DESCRIPTION:** This course curriculum offers medical office training. Students also have an opportunity to advance learning in their chosen field and/or explore a variety of nursing and allied health careers. Students receive clinical (on-the-job) experience closely related to the area of their interest(s). Clinical placement begins early in the school year and continues through the fourth nine weeks.

Health Careers Training Nursing/Allied Health Year Two offers a wonderful opportunity for students to gain in-depth exposure to their potential health career area as well as providing a solid foundation for employment and college/technical education. Student will receive certification in CPR/First Aid/AED for the Professional Rescuer.

## THIRD YEAR OPTION: NURSING

### HEALTH CAREERS PRACTICUM - NURSING (3 HRS) (56733)

2 semesters, 3 credits per semester East (3 periods) Grade 12

Approximate cost per semester: \$30.41 + uniform and supplies

Meets requirements of: THD, AHD, Core 40

Prerequisite(s): 56712 or 56713 Health Careers Training - Nursing Year One and 56722 or 56723 Health Careers Training - Nursing Year Two. Student must be able to provide own transportation. Community placement is contingent upon meeting minimum standards and classroom performance. Students who do not meet minimum standards may face loss of credit.

**COURSE DESCRIPTION:** This course is designed for students who are interested in receiving specialized training and/or employment in an entry level health career. Areas of specialized practicum training are based

on the student's individual career objective. Students are placed for clinical (on-the-job) training early in the first nine weeks and continue throughout the school year. Health Careers Practicum - Nursing offers a wonderful opportunity for students to gain in-depth exposure to their potential health career area as well as providing a solid foundation for employment and college/technical education.

## HUMAN SERVICES - FAMILY & CONSUMER SCIENCES

\*Health credit and 1 science credit can be earned in FACS.

### TEACHER EDUCATION - YEAR ONE (2 HRS) (57122)

2 semesters, 2 credits per semester (2 periods) Grades 11-12

Teacher Education - Year One (3 Hours) (57123) 2 semesters, 3 credits per semester (3 periods) Grades 11-12

Approximate cost per semester: \$10.00

Meets requirements of: THD, AHD, Core 40

Recommendation(s): Child Development and Parenting II

Dual Credit Agreement(s): Indiana University Purdue University Columbus F200 Examining Self as a Teacher (3 credits), Q200 Introduction to Scientific Inquiry (3 credits) All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and the Academic Honors Diploma.

NOTE: Teacher Education can be taken for a second year.

**COURSE DESCRIPTION:** Teacher Education prepares students for employment in education, and related services and provides the foundations for study in higher education that leads to education and other child-related careers. A project-based approach that utilizes higher order thinking, communication, leadership, and management processes is recommended in order to integrate suggested topics into the study of education and services. The course of study includes, but is not limited to: planning and guiding developmentally appropriate activities for school-age children, K - 8 grade; developmentally appropriate practices of guidance and discipline; application of basic health and safety principles when working with children; overview educational settings; Indiana state regulations related to school-age children; and employability skills. Intensive experiences in one or more school laboratories (classrooms), resumes, and career portfolios are required components. A standards-based plan for each student guides the student's laboratory/field experiences. Students are monitored in their laboratory/field experiences by the Early Childhood, Education, & Services teacher. Student laboratory/field experiences will be school-based. CTAs (Certificates of Technical Achievement) and CTA assessments are available for this career area. Go to <http://www.in.gov/dwd/teched> for more information. This course is recommended for students with interests in education and services career paths and provides the foundation for study in higher education that leads to child-related careers. Teacher Education - Year Two (2 hrs) (57132)

2 semesters, 2 credits per semester (2 periods) Grade 12

### TEACHER EDUCATION - YEAR TWO (3 HRS) (57133)

2 semesters, 3 credits per semester (3 periods) Grade 12

Approximate cost per semester: \$10.00

Meets requirements of: THD, AHD, Core 40

Prerequisite(s): Completion of either 57122 or 57123 Teacher Education - Year One with a C or better.

Dual Credit Agreement(s): Indiana University Purdue University Columbus P251 Educational Psychology for Elementary Teachers (3 credits), W200 Using Computers in Education (3 credits)

**COURSE DESCRIPTION:** Designed for returning Teacher Education students, this course is a continuation of the study of teaching. Teacher cadets complete observations and teaching internships at local schools, K through 8.

### CHILD DEVELOPMENT AND PARENTING (57331)

1 semester, 1 credit per semester Grades 10-12

Approximate cost per semester: \$16.71

Meets requirements of: THD, AHD, Core 40

**COURSE DESCRIPTION:** Child Development and Parenting addresses the knowledge, skills, attitudes, and behaviors associated with supporting and promoting optimal growth and development of infants and chil-

dren. A project-based approach that utilizes higher order thinking, communication, leadership, and management processes is recommended in order to integrate suggested topics into the study of individual and family issues. 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; adolescent pregnancy; 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, and family and societal crisis on 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. One of the 5 FACS courses from which students may choose 3 to fulfill the required Health & Safety credit.

### ADVANCED CHILD DEVELOPMENT (57341)

1 semester, 1 credit per semester Grades 10-12

Approximate cost per semester: \$16.71

Meets requirements of: THD, AHD, Core 40

Recommendation(s): Successful completion of 57331 Child Development

**COURSE DESCRIPTION:** 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 individuals and groups of children; meeting needs of children with a variety of disadvantaged conditions; and, exploration of all aspects of the industry for selected child-related careers.

### TEXTILES AND FASHION TECHNOLOGIES - FASHIONS & FABRICS (57701)

1 or 2 semesters 1 or 2 credits Grades 9-12

Approximate Fee: \$10.30 per semester

A Core 40 directed elective as part of a technical career area, THD & AHD elective

**COURSE DESCRIPTION:** Textiles and Fashion Technologies addresses knowledge and skills related to design, production, acquisition, and distribution in the textiles and fashion arenas. Topics include: textiles principles and applications; care and maintenance of textile products, equipment, and tools; impacts of technology; and construction and alteration skills. Laboratory and/or service learning are included. Each semester builds on skills developed in previous courses and become more advanced in nature.

### ADVANCED LIFE SCIENCE: FOODS (25502)

2 semesters, 1 credit per semester (2 periods) Grades 11-12

May include travel period.

Approximate cost per semester: \$16.55

Meets requirements of: THD, AHD, Core 40, NCAA

Recommendation(s): Two years of Core 40/AHD Science

Note: This course counts towards Core 40 Science credits.

**COURSE DESCRIPTION:** Advanced Life Science - Foods is a standards-based, interdisciplinary science course that integrates biology, chemistry, and microbiology in an agricultural context. Students enrolled in this course formulate, design, and carry out food-based laboratory and field investigations as an essential course component. Students investigate key concepts that enable them to understand how biology, chemistry, and physics principles apply to the composition of foods, food nutrition and development, food processing, and storage. Students completing this will be able to apply the principles of scientific inquiry to solve problems related to biology and chemistry in highly advanced applications of food.

### BEGINNING NUTRITION AND WELLNESS (57371)

1 semester, 1 credit per semester Grades 9-12

Approximate cost per semester: \$16.87

Meets requirements of: THD, AHD, Core 40

**COURSE DESCRIPTION:** Nutrition and Wellness enables students to realize the components and life-long benefits of sound nutrition and wellness practices and empowers them to apply these principles in their everyday lives. A project-based approach that utilizes higher order thinking, communication, leadership, and management processes is recommended in order to in-

tegrate suggested topics into the study of individual and family issues. Topics include: impact of daily nutrition and wellness practices on long-term health and wellness; physical, social, and psychological aspects of healthy nutrition and wellness choices; planning for wellness and fitness; selection and preparation of nutritious meals and snacks based on USDA Dietary Guidelines including the Food Guide Pyramid; safety, sanitation, storage, processes and issues associated with nutrition and wellness; impacts of science and technology on nutrition and wellness issues; and nutrition and wellness career paths. Laboratory experiences which emphasize both nutrition and wellness practices are required components of this course. One of the 5 FACS courses from which students may choose 3 to fulfill the required Health & Safety credit.

#### **SPORTS NUTRITION (57391)**

*1 semester, 1 credit per semester Grades 9-12  
Approximate cost per semester: \$18.84  
Meets requirements of: THD, AHD, Core 40  
Recommendation(s): 57371 Beginning Nutrition and Wellness*

**COURSE DESCRIPTION:** The wonderful aromas you smell during passing period are coming from the FACS classrooms. Sports Nutrition is one of them. This course is designed to benefit the nutritional needs for all students, but especially athletes. Topics include: simple food preparation, individual dietary needs, nutrition information and analysis, pre-game and recovery foods/drinks. Come learn how to make wise food choices.

#### **ADVANCED SPORTS NUTRITION & WELLNESS (57381)**

*1 semester, 1 credit per semester Grades 9-12  
Approximate cost per semester: \$16.87  
Meets requirements of: THD, AHD, Core 40  
Recommendation(s): 57371 Beginning Nutrition and Wellness or 57391 Sports Nutrition*

**COURSE DESCRIPTION:** Advanced Nutrition Sports and Wellness is a course that addresses more complex concepts in nutrition and foods, with emphasis on contemporary economic, social, psychological, cultural, and global issues. Topics include: nutrition and wellness for individuals and families across the life span; meal preparation and entertainment, and related tools and equipment; management of food-related resources; acquiring, organizing, and evaluating information about foods and nutrition; exploration of careers in all aspects of the food industry. Laboratory experiences which emphasize advanced applications are required.

#### **INTERPERSONAL RELATIONS (57321)**

*1 semester, 1 credit per semester Grades 9-12  
Approximate cost per semester: \$21.97  
Meets requirements of: THD, AHD, Core 40*

**COURSE DESCRIPTION:** Interpersonal Relationships addresses the knowledge, skills, attitudes, and behaviors all students need to participate in positive, caring, and respectful relationships in the family and with individuals in school, in the community, and in the workplace. A project-based approach that utilizes higher order thinking, communication, leadership, and management processes is recommended in order to integrate suggested topics into the study of individual and family issues. Topics include components of healthy relationships, roles, and responsibilities in relationships; functions and expectations of various relationships; ethics in relationships; factors that impact relationships (e.g., power, conflicting interests, peer pressure, life events); establishing and maintaining relationships; building self-esteem and self-image through healthy relationships; communica-

tion styles; techniques for effective communication, leadership, and teamwork; individual and group goal setting and decision making; preventing and managing stress and conflict; and addressing violence and abuse. One of the 5 FACS courses from which students may choose 3 to fulfill the required Health & Safety credit.

#### **ADULT ROLES AND RESPONSIBILITIES (57351)**

*1 semester, 1 credit per semester Grades 11-12  
Approximate cost per semester: \$13.25  
Meets requirements of: THD, AHD, Core 40*

**COURSE DESCRIPTION:** Adult Roles and Responsibilities 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. A project-based approach that utilizes higher order thinking, communication, leadership, and management processes is recommended in order to integrate suggested topics into the study of individual and family issues. The focus is on becoming independent, contributing, and responsible participants in family, community, and career settings. Topics include: living independently, analysis of personal standards, needs, aptitudes, and goals; career responsibilities; simple meal preparation; consumer choices and decision making related to nutrition and wellness, clothing, housing, and transportation; and financial management.

#### **HOUSING AND INTERIORS (57361)**

*1 semester, 1 credit per semester Grades 11-12  
Approximate cost per semester: \$17.56  
Meets requirements of: THD, AHD, Core 40*

**COURSE DESCRIPTION:** Housing and Interiors addresses selecting and planning living environments to meet the needs and wants of individuals and families throughout the family life cycle, considering a broad range of economic, social, cultural, technological, environmental, maintenance, and aesthetic factors. A project-based approach that utilizes higher order thinking, communication, leadership, and management processes is recommended in order to integrate suggested topics into the study of individual and family issues. Topics include evaluation of housing styles, locations, zones, restrictions, and ownership options; managing resources to provide shelter for individuals and families, including financing options and tax considerations; contemporary housing issues, including homelessness; environmental and energy issues' impacts of technology; housing to meet special needs; elements and principles of design related to interiors, housing and architecture; blueprinting and floor planning skills; creating functional, safe and aesthetic spaces; historical aspects and contemporary trends in housing, interiors, furniture and appliances exploration of housing-related careers. Applications through authentic settings such as work-based observations, internships, and service learning experiences (e.g. Habitat for Humanity) are appropriate. Direct, concrete applications of mathematics proficiencies in projects are encouraged.

#### **EARLY CHILDHOOD EDUCATION AND SERVICES**

\* ALL CLASSES MEET THD, AHD ELECTIVE AND CORE 40 CAREER AREA

#### **EARLY CHILDHOOD EDUCATION - YEAR ONE (2 HRS) (57102)**

*2 semesters, 2 credits per semester (2 periods)  
Grades 11-12*

*Approximate cost per semester: \$19.85*

*Early Childhood Education - Year One (3 hrs) (57103)*

*2 semesters, 3 credits per semester (3 periods)  
Grades 11-12*

*Approximate cost per semester: \$19.85*

*Meets requirements of: THD, AHD, Core 40*

*Prerequisite(s): 57331 Child Development and Parenting and 57341 Advanced Child Development*

*Dual Credit Agreement(s): Ivy Tech Community College ECED 100 Introduction to Early Childhood Education, ECED 101 Health, Safety & Nutrition (6 credit hours with a grade of C or better). All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.*

**COURSE DESCRIPTION:** Child EduCare Training is designed for those interested in learning more about children. The first semester students reinforce knowledge gained in the child development and childcare workers courses while operating a nursery school. Students are responsible for the operation of the school and assume responsibility for various personnel in a child care center. Second semester the students will intern in a childcare related occupation of their choice. The students return to the classroom one day a week for further training emphasizing job success skills, career planning, and operation of childcare facilities.

#### **EARLY CHILDHOOD EDUCATION - YEAR TWO (2 HRS) (57112)**

*2 semesters, 2 credits per semester (2 periods)  
Grade 12*

*Approximate cost per semester: \$18.48*

*Early Childhood Education - Year Two (3 hrs) (57113)*

*2 semesters, 3 credits per semester (3 periods)  
Grade 12*

*Approximate cost per semester: \$18.48*

*Meets requirements of: THD, AHD, Core 40*

*Prerequisite(s): 57102 or 57103 Early Childhood Education - Year One*

*Dual Credit Agreement(s): Ivy Tech Community College ECED103 Curriculum In Early Childhood, ECED105 CDA Process (6 credit hours with a grade of C or better) All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.*

**COURSE DESCRIPTION:** The second year student is seeking accreditation through the Child Development Association, in conjunction with Ivy Tech and other accrediting agencies. Students will cover six competencies set by CDA and complete a portfolio. The competencies to be achieved are: proving a safe, healthy learning environment, physical and intellectual competency in children, social and emotional development and guidance, positive and productive relationships with families, well-run, purposeful child care programs, commitment to professionalism. Dual Credit ECED 103 and 105 (6 credits)

#### **COSMETOLOGY - YEAR ONE (4 HRS) (57504)**

*2 semesters, 4 credits per semester at McDowell (3 periods) + Extra Clock Time Grades 11-12*

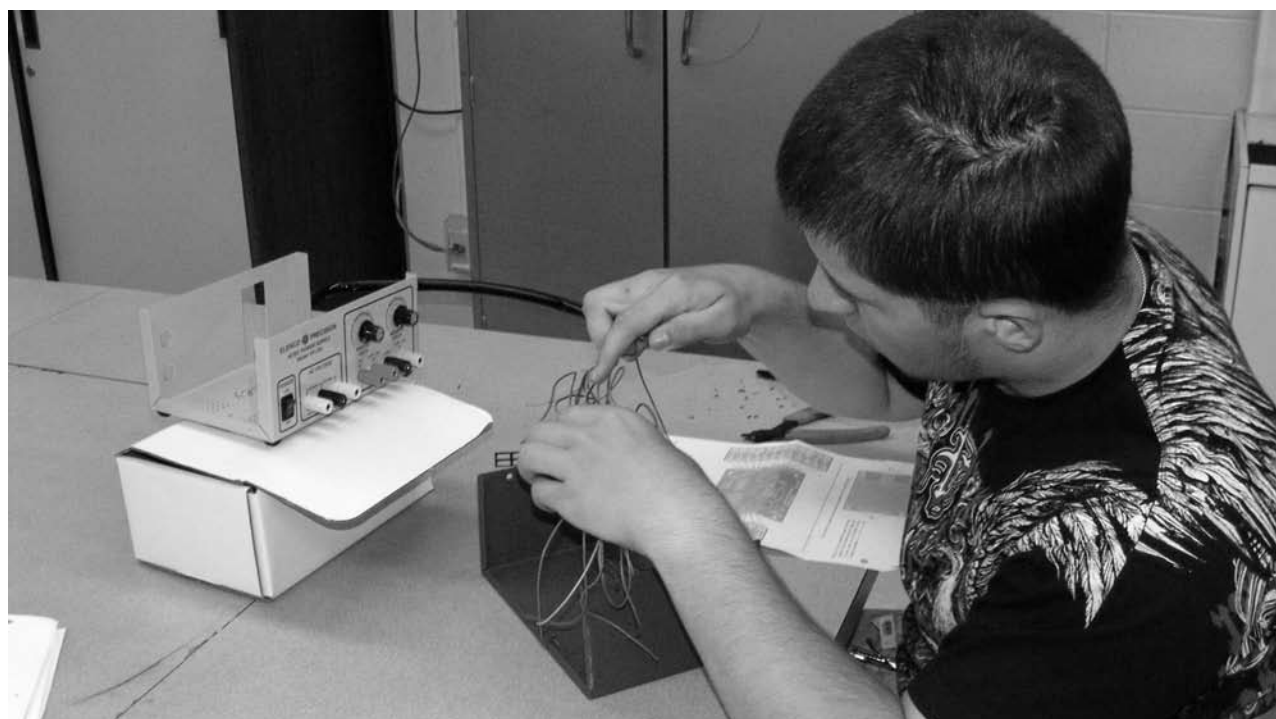
*Approximate cost per semester: \$477.16 + uniform, labels, and lock*

*Meets requirements of: THD, AHD, Core 40*

*Prerequisite(s): Application and/or interview may be required*

*Dual Credit Agreement(s): Vincennes University COSM 100 Cosmetology I (7 credits), COSM 150 Cosmetology II (7 credits) All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.*

**COURSE DESCRIPTION:** This course is licensed by the Indiana State Board of Cosmetology and enables a successful graduate to take the board examination to become a cosmetologist. In this two-year program, students learn how to provide personal care to improve appearance of hair, skin, and nails. When students attain specific competencies, they apply these acquired skills to serve public patrons in the cosmetology clinic. Students



must earn a minimum of 375 hours each semester in order to receive high school credit. Attendance is required 5 days per week. Students must have their own, dependable transportation. School bus is provided from home school, to cosmetology; must have your own transportation to home. Second-year acceptance is contingent upon successful completion of first-year requirements. Due to the nature of this class, including extra self-discipline and time requirements, students must have good attendance, display appropriate behavior, and promote a positive attitude at all times. Students who do not meet these requirements will lose their opportunity to return the following semester.

#### **COSMETOLOGY - YEAR TWO (4 HRS) (57514)**

2 semesters, 4 credits per semester at McDowell (3 periods) + Extra Clock Time Grade 12  
Approximate cost per semester: \$11.00 + uniform shoes and lab coat.  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 57114 Cosmetology - Year One  
Dual Credit Agreement(s): Vincennes University COSM 200 Cosmetology III (7 credits), COSM 250 Cosmetology IV (9 credits) All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.

**COURSE DESCRIPTION:** This course is licensed by the Indiana State Board of Cosmetology and enables a successful graduate to take the board examination to become a cosmetologist. In this two-year program, students learn how to provide personal care to improve appearance of hair, skin, and nails. When students attain specific competencies, they apply these acquired skills to serve public patrons in the cosmetology clinic. Students must earn a minimum of 375 hours each semester in order to receive high school credit. Attendance is required five days per week. Students must have their own, dependable transportation. School bus is provided from home school, to cosmetology; must have your own transportation to home. Second-year acceptance is contingent upon successful completion of first-year requirements. Monday - Thursday 1:00 - 6:00, Friday 1:00 - 5:30. Due to the nature of this class, including extra self-discipline and time requirements, students must have good attendance, display appropriate behavior, and promote a positive attitude at all times. Students who do not meet these requirements will lose their opportunity to return the following semester.

#### **CULINARY ARTS - YEAR ONE (2 HRS) (57212)**

2 semesters, 2 credits per semester at McDowell (2 periods) Grades 10-12  
Approximate cost per semester: \$64.10 + uniform  
Meets requirements of: THD, AHD, Core 40  
Culinary Arts - Year One (3 hrs) (57213)  
2 semesters, 3 credits each semester at McDowell (3 periods) Grades 10-12  
Approximate cost per semester: \$64.10 + uniform  
Meets requirements of: THD, AHD, Core 40

**COURSE DESCRIPTION:** The Culinary Arts program offers unique opportunities for students interested in careers in the hospitality and restaurant industry. Students investigate a variety of possible professions in food, lodging, recreation or travel-related services. Units of instruction include basic culinary skills, service skills, food production skills, baking and pastry skills, marketing, purchasing, and management skills. The program can be individualized to meet any student's needs and offers an excellent opportunity for employment and can allow the student to qualify for a national certification from the National Restaurant Association. Students continuing their education at a post-secondary level will have opportunity to qualify for articulation agreements with both regional and national colleges and universities. On-the-job training in the community may be available to qualified students. Students can also become involved in the American Culinary Federation and participate in regional or state Skills USA - VICA competitions.

#### **CULINARY ARTS - YEAR TWO (2 HRS) (57222)**

2 semesters, 2 credits per semester at McDowell (2 periods) Grades 11-12  
Approximate cost per semester: \$64.10 + uniform  
Meets requirements of: THD, AHD, Core 40  
Culinary Arts - Year Two (3 hrs) (57223)  
2 semesters, 3 credits per semester at McDowell (3 periods) Grades 11-12  
Approximate cost per semester: \$64.10 + uniform  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 57212 or 57213 Culinary Arts - Year One  
Dual Credit Agreement(s): Ivy Tech Community College HOSP 101, HOSP 105, HOSP 102 (8 credit hours). All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.

**COURSE DESCRIPTION:** See Beginning Culinary Arts description.

#### **CULINARY ARTS PRACTICUM (3 HRS) (57233)**

2 semesters, 3 credits per semester at McDowell (3 periods) Grade 12  
Approximate cost per semester: \$53.20 + uniform  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 57222 or 57223 Culinary Arts - Year Two

**COURSE DESCRIPTION:** The Culinary Arts Program offers unique opportunities for students interested in careers in the hospitality and restaurant industry. Students investigate a variety of possible professions in food, lodging, recreation, or travel-related services. Units of instruction include basic culinary skills, service skills, food production skills, baking and pastry skills, marketing, purchasing, and management skills. The program can be individualized to meet any student's needs and offers an excellent opportunity for employment and can allow the student to qualify for a national certification from the National Restaurant Association. Students have the opportunity to qualify for articulation agreements with both regional and national colleges and universities. On-the-job training in the community may be available to qualified students. Students can also become involved in the American Culinary Federation and participate in regional or state FCCLA (Family Career and Community Leader of America) and ProStart articulation agreement with Ivy Tech and Sullivan's University competitions. Students receive a certification upon completion of instructional units.

### **PROTECTIVE SERVICES**

#### **LAW ENFORCEMENT TRAINING**

#### **LAW ENFORCEMENT - YEAR ONE (2 HRS) (57012)**

2 semesters, 2 credits per semester (2 periods) at East Grades 11-12  
Approximate cost per semester: \$135.93  
Meets requirements of: THD, AHD, Core 40  
Dual Credit Agreement(s): Vincennes University LAWE 100 and LAWE 150 Criminology (6 credits). All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.

**COURSE DESCRIPTION:** This course is designed as an introduction to prepare students for careers in criminal justice, public safety, security and specifically law enforcement. The course will help students understand the differences between local, state, and federal criminal justice systems, with an emphasis on law enforcement agencies and police responsibilities. This course of instruction covers the purposes, functions, and history of law enforcement, courts and correctional systems. Students will gain an introductory understanding of how law enforcement officers are trained and the wide range of duties an officer must perform. In addition, students will explore the interrelationships of the elements of the criminal justice systems and examine the history and nature of the major theoretical perspectives in criminology. The duties of an officer range from controlling traffic to preventing and investigating crimes. Police officers maintain order; enforce laws and ordinances; issue investigating crimes. Police officers maintain order; enforce laws and ordinances issue traffic summonses; investigate accidents; present evidence in court; serve legal documents for the court system; and apprehend, arrest and process prisoners. This course is a prerequisite to the second year intermediate law enforcement class.

#### **LAW ENFORCEMENT - YEAR TWO (2 HRS) (57022)**

2 semesters, 2 credits per semester (2 periods) at East Grade 12  
Approximate cost per semester: \$88.32  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 57012 Law Enforcement - Year One  
Dual Credit Agreement(s): Vincennes University, LAWE 160 Criminal Investigation and LAWE 106 Introduction to Traffic Control (6 credits). All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.

**COURSE DESCRIPTION:** This course is designed as a continuation of the introductory law enforcement course of study to an intermediate course of study and prepares students for careers in criminal justice, public safety, security and specifically law enforcement. The course will help students understand the differences between local, state, and federal criminal justice systems, with an emphasis on law enforcement agencies. In addition, students will explore the interrelationships of the elements of the criminal justice system and learn how those relationships are critical to the overall functioning of the criminal justice system.

This course of instructions covers the purposes, functions, and current trends of law enforcement, courts, and correctional systems. Students will gain an understanding of how law enforcement officers use the application of science and technology to conduct criminal investigations and analyzing traffic accidents. Focuses on the techniques and equipment used to recognize, collect, preserve, identify, examine, and evaluate witnesses, suspects, and evidence necessary for solving crimes and analyzing traffic accidents.

The duties of an officer range from controlling traffic to preventing and investigating crimes. Police officers maintain order; enforce laws and ordinances; issue traffic summonses; investigate accidents; present evidence in court; serve legal documents for the court system; and apprehend, arrest and process prisoners. Dual credit agreement with Ivy Tech CRJ 115 and Vincennes University LAWE 106 through Project Excel. Also available, Work Force Ethics Certificate and National Academies of Emergency Dispatching (NAED).

### **TRANSPORTATION**

ALL TRANSPORTATION COURSES MEET AHD, THD ELECTIVE AND CORE 40

#### **ELECTRONICS AND POWER SYSTEMS TECHNOLOGY (55031)**

2 semesters, 1 credit per semester Grades 9-12  
Approximate cost per semester: \$18.60  
Meets requirements of: THD, AHD, Core 40

**COURSE DESCRIPTION:** Electronics and Power Systems Technology is a course designed to give the student a background in electromechanical devices, circuits, basic electricity, basic hydraulics, pneumatics, and the internal combustion engine. The student will study basic theory of the above subjects along with hands on activities. The student will have the opportunity to design, build, test, troubleshoot and work with related support systems. Introductory course for students interested in the C4 Power Systems Technology course.

### **AUTO SERVICES TECHNOLOGY**

#### **AUTOMOTIVE TECHNOLOGY - YEAR ONE (2 HRS) (58012)**

2 semesters, 2 credits per semester (2 periods)  
Approximate cost per semester: \$75.03  
Automotive Technology - Year One (3 hrs) (58013)  
2 semesters, 3 credits per semester (3 periods) Grades 10-12  
Approximate cost per semester: \$75.03  
Meets requirements of: THD, AHD, Core 40

**COURSE DESCRIPTION:** Students in Year One Automotive will study engine fundamentals, suspension and steering systems and electrical/electronic systems. The automotive technology program is NATEF certified and offers the students who complete the course the opportunity to receive post secondary credits toward future training. Students meeting set standards in the program are eligible to take the ASE certificate tests.

## **AUTOMOTIVE TECHNOLOGY - YEAR TWO (2 HRS) (58022)**

*2 semesters, 2 credits per semester (2 periods)  
Grades 11-12  
Approximate cost per semester: \$18.78  
Automotive Technology - Year Two (3 hrs) (58023)*

*2 semesters, 3 credits per semester at East (3 periods) Grades 11-12  
Approximate cost per semester: \$18.78  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 58012 or 58013 Automotive Technology - Year One  
Dual Credit Agreement(s): Ivy Tech Community College AUTC 145 Powertrain Service (3 credits), AUTC 109 Engine Performance I (3 credits) and AUTC 127 Engine Repair (3 credits) with completion of 58012 or 58103 and 58022 or 58023 with a grade of C or better. All course requirements must be met. These credits will count toward the requirements of the Indiana Technical Honors Diploma and Academic Honors Diploma.*

**COURSE DESCRIPTION:** Year Two students will study engine performance and brakes. After completing all the requirements, qualified students may have an opportunity to be placed into a community workstation. This opportunity is offered at the end of their second year and/or during the third year of Automotive Technology.

## **AUTOMOTIVE TECHNOLOGY PRACTICUM (3 HRS) (58099)**

*2 semesters, 3 credits per semester (3 periods)  
Grades 12  
Approximate cost per semester: \$18.78  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): 58012 or 58013 Automotive Technology - Year One and 58022 or 58023 Automotive Technology - Year Two. Requires teacher approval.*

**COURSE DESCRIPTION:** This program is designed for third year automotive students. The student must have maintained a grade of B or above in Beginning and Intermediate Auto Tech. Qualifying students will be placed in a Community Training Site/Automotive Position.

## **C4 SCHOOL-TO-WORK**

### **C4 SCHOOL-TO-WORK (STW) OPTIONS**

Components of the STW system involve cooperative education, extended labs, advanced placements and third year practicums in partnership with community learning stations through C4 programming. Additional STW opportunities available to all students include job shadowing, internships, and on-the-job training. This program is available to qualified senior students. Selection is based on current grades/GPA in core subject and specific area knowledge, and with instructor approval. Representatives from local industry interview students prior to placement. Selected students are placed in on-the-job training sites under the supervision of a department manager. Students work a minimum of 15 hours a week.

**Co-op:** The expectation for co-op students is that they will be placed into employment opportunities within the community for pay. **Extended Lab:** Students in extended labs engage in community placement sometime after the first nine weeks. This experience is an extension of their classroom training and placement sites provide training and evaluation. Due to occupational training requirement, there is no pay for this experience. **Advanced Job Placement (AJP):** Advanced occupational training students may qualify for community placement training if the teacher believes that the student can learn as much or more from the community site as from class, if a placement site is available and matches the student's skill level, and if the student's transcript grades, attendance, and behavior in all classes are average or above. For more information, contact the C4 office at 376-4240.

### **INTERDISCIPLINARY COOPERATIVE EDUCATION (ICE) RELATED (59579)**

*2 semesters, 1 credit per semester (1 period)  
Grade 12  
Approximate cost per semester: \$15.17*

### **INTERDISCIPLINARY COOPERATIVE EDUCATION (ICE) JOB (59599)**

*2 semesters, 2 credits per semester (2 periods)  
Grade 12  
Approximate cost per semester: \$30.42  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): Application required and instructor approval required*

**COURSE DESCRIPTION:** This course provides occupational training in work areas not currently provided in the regular courses. It combines classroom instruction

and work experiences in community workstations. In addition to a morning schedule of required and elective courses the student attends a related class each day before being released to work in the community during the afternoon. In the related class the student will study topics related to employee effectiveness and making the transition into the work force. Work sites are identified through a cooperative effort of the student and teacher, who will supervise the total program. Students are usually required to provide their own transportation to job sites.

### **SUPERVISED AGRICULTURAL EXPERIENCE (SAE) (50077)**

#### **AGRICULTURAL/CO-OP TRAINING (RELATED)**

*2 semesters, 1 credit per semester at East Grade 12  
Agricultural/Co-op Training (Job) (50079)  
2 semesters, 2 credits per semester at East  
Approximate cost per semester: \$5.90  
Meets requirements of: THD, AHD, Core 40  
Prerequisite(s): Application and coordinator approval required. Student must provide their own transportation. Minimum age of 16 and eligibility requirements of the Federal and State Child Labor Laws.*

**COURSE DESCRIPTION:** This course provides training in agricultural work areas by combining classroom instruction and work experience in the community. The student attends the cooperative education related class each day before being released to work in the community. In the related class the student will study topics related to employee effectiveness and making the transition into the effort of the student and teacher/coordinator, who supervises the total program.

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## **ENGLISH**

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### **REQUIRED ENGLISH COURSES**

All required English courses involve the study of reading, listening, thinking, writing, and speaking. In each course students reflect on information that relates to the world and the workplace, helping students to master essential skills as well as to appreciate literature. Book Talks and other independent reading projects encourage students to make reading a lifelong pursuit.

#### **ENGLISH 9 (012051, 012502)**

*2 semesters 2 Credits  
Approximate Fee: \$12.00 per semester  
A Core 40, AHD and NCAA course*

**COURSE DESCRIPTION:** Students identify the basic elements of English grammar. They master the correct written form of compositions as they employ critical thinking and listening strategies. Students identify the elements of the short story, the elements of the novel, and the elements of drama. Students revise and word process final drafts of compositions. In addition to appreciating literature, students read to recognize literary genres, bias, propaganda, and author's purpose. In writing experiences, students support a thesis in an organized composition. Students participate in guided class discussions and work effectively in group settings. Students prepare and deliver presentations using technology as well as incorporating research into written and oral work using proper documentation. They develop vocabulary by reading, by using contextual clues, and by decoding.

#### **GLOBAL STUDIES - ENGLISH 9 (011111, 011112)**

*2 SEMESTERS, 2 CREDITS GRADE 9  
Approximate Fee: \$12.00 per semester  
A CORE 40, AHD AND NCAA COURSE*

**COURSE DESCRIPTION:** Global Studies combines Geography and History of the World and English 9 and is team-taught by a social studies teacher and an English teacher in a two mod block. The blending of these courses will allow students to make connections between World Geography, World History, and literature of the world. The English 9 component is designed to enable students to identify the basic elements of English grammar. They master the correct written form of compositions as they employ critical thinking and listening strategies. Students identify the elements of the short story, the elements of the novel, and the elements of drama. Students revise and word process final drafts of compositions. In addition to appreciating literature, students read to recognize literary genres, bias, propaganda, and author's purpose. In writing experiences, students support a thesis in an organized composition. Students participate in guided class discussions and work effectively in group settings. Students prepare and deliver presentations using technology as well as incorporating research into written and oral work using proper documentation. They develop vocabulary by reading, by

using contextual clues, and by decoding. See Global Studies - Geography and History of the World section for the social studies component of Global Studies. Students taking Global Studies will earn 4 credits (2 for English 9 and 2 for Geography and History of the World).

#### **ENGLISH 10 (020151, 020152)**

*2 semesters 2 Credits  
Approximate Fee: \$12.00 per semester  
A Core 40, AHD and NCAA course*

**COURSE DESCRIPTION:** Students read world literature selections from ancient Greece to Shakespeare to 21st century literature. Students use proper documentation for one source and multi-source compositions. Students prepare presentations and receive assessment based on well-established rubrics. Students continue to work for individual growth in their writing, reading, and speaking skills. Students listen and think critically for different audiences and purposes. Students record notes when listening and researching. As part of a research project, students interpret by summarizing, analyzing, evaluating, and synthesizing as an individual reader/writer and as a member of a group. Students assess their work and the work of their peers. Students use technology as part of presentations.

#### **CONTEMPORARY ISSUES - ENGLISH 10 (02215)**

*Grade 10  
2 semesters, 2 credits  
Approximate fee:  
A Core 40, AHD and NCAA course*

**COURSE DESCRIPTION:** Contemporary Issues combines two social studies electives - Current Issues, Problems, and Events and Topics in Social Science: International Studies - with English 10. It is team-taught by an English teacher and a social studies teacher in a two-mod block. The blending of these courses will allow students to make thematic connections between national and global issues and literature of the world. Students read world literature selections from ancient Greece to Shakespeare to 21st Century Literature. Students use proper documentation for one source and multi-source compositions. Students prepare presentations and receive assessment based on well-established rubrics. Students continue to work for individual growth in their writing, reading, and speaking skills. Students listen and think critically for different audiences and purposes. Students record notes when listening and researching. As part of a research project, students interpret by summarizing, analyzing, and synthesizing as an individual reader/writer and as a member of a group. Students assess their work and the work of their peers. Students use technology as part of presentations. This course will emphasize the use of the scientific methods of inquiry and will help students to develop effective reading, writing, research, discussion, and critical thinking skills. See Contemporary Issues - Social Studies section for the social studies component of American Studies. Students taking Contemporary Issues will earn 4 credits (2 for English 10 and 1 each for social studies electives Current Issues and International Studies).

#### **ENGLISH 11 (032221, 032222)**

*2 semesters 2 Credits  
Approximate Fee: \$19.66 per semester  
A Core 40, AHD and NCAA course*

**COURSE DESCRIPTION:** Students exclusively read American literature through chronological as well as thematic placement of authors. Students learn persuasive writing, narrative writing, and expository writing. Students continue work with research techniques. Students use rubrics to analyze literary selections. Students identify elements in literature that reflect social, economic, or political issues of the time period as they learn to analyze point of view. Students respond critically, reflectively, and imaginatively in writing and in speech to American literature. Students continue to develop vocabulary. Students improve sophistication of writing through revision and continue to document sources in both written and spoken work.

#### **ENGLISH 11 - AMERICAN STUDIES (030111)**

*2 semesters 2 credits Grade 11  
Approximate Fee: \$70.00 per semester  
A Core 40, AHD and NCAA course*

**COURSE DESCRIPTION:** American Studies combines U.S. History and English 11 and is team taught by a social studies teacher and an English teacher in a two mod block. The blending of these courses will allow students to make connections between major American historical themes and American literature. In the English component of the course, students exclusively read American fiction and nonfiction through chronological as well as thematic placement of authors. Students learn persua-

sive writing, narrative writing, and expository writing. Students continue to work with research techniques. Students use rubrics to analyze literary selections. Students identify elements in literature that reflect social, economic, or political issues of the time period as they learn to analyze point of view. Students respond critically, reflectively, and imaginatively in writing and in speech to American literature. Students improve sophistication of writing through revision and continue to document sources in both written and spoken work. See United States History - American Studies section for the U.S. History component of American Studies.

#### **ENGLISH 12 (044331, 044332)**

*2 semesters 2 Credits*  
*Approximate Fee: \$12.00 per semester*  
*A Core 40, AHD and NCAA course*

**COURSE DESCRIPTION:** Students read selections from English literature, modern literature, and mass media. Students continue to expand their writing portfolios with a focus on revision. Students complete the process of creating their senior projects. Students write business letters, work logs, interview questions, and a persuasive research paper using correct documentation. Students present their research in ten minute speeches to community panels. Students think critically about literature and articulate the points of view of a variety of authors.

#### **ENGLISH 12 AP (042321, 042322)**

*2 Semesters 2 Credits*  
*Approximate Fee: 86.00*  
*Diplomas: Core 40, AHD, THD*

**Course Description:** The curriculum of this course is primarily, but not exclusively, British literature. Students will become familiar with the dominant genres, major authors, writing conventions, and traditions of each literary period and will gain knowledge of the social, political, and intellectual contexts within which this literature was composed and read. Students will learn the technical vocabulary necessary for discussing literature orally and analyzing literature in writing. The English 12AP course is a college-level course that allows students to earn college credit and advanced placement in the college admission process. In addition, students taking this course will engage in intense analytical discussions, solve problems collaboratively, and learn to write essays that demonstrate a concise understanding of persuasion, analysis, and expression. Students wishing to stretch themselves academically and creatively and develop study habits to tackle rigorous course work. The curriculum of this course and the format of the class require students to be willing to stretch themselves academically and creatively. It has been designed with the hope that it will help students develop the study habits necessary to tackle the rigorous course work they may experience in a college setting.

#### **ENGLISH 12 COMPOSITION-COLLEGE CREDIT (W13) (041001) (DUAL CREDIT)**

*Approximate Fee: \$170.39 per semester*  
*A Core 40, AHD and NCAA course*

**COURSE DESCRIPTION:** Advance College Project English is a one semester composition course that enables seniors to receive three hours of college credit at the same time that they fulfill half of their senior English requirement if they pay tuition set by Indiana University and earn a C or better in the course. Students not opting for college credit will receive English 12 credit.

#### **ENGLISH 12 LITERATURE-COLLEGE CREDIT (L202) (041052) (DUAL CREDIT)**

*1 Semester 1 Credit 2nd Semester*  
*Approximate Fee: \$12.00 per semester.*  
*A Core 40, AHD and NCAA course*  
*Prerequisites: This course is open to students who have taken Advance College Project composition.*

**COURSE DESCRIPTION:** Advance College Project English is a one semester literature course that enables seniors to receive three hours of college credit at the same time that they fulfill half of their senior English requirement if they pay tuition set by Indiana University and earn a C or better in the course. Students not opting for college credit will receive English 12 credit.

#### **ELECTIVE ENGLISH COURSES**

##### **ENGLISH/JOURNALISM I (06111)**

*1 Semester 1 Credit Grades 9-12*  
*Approximate Fee: \$8.00 per semester*

**COURSE DESCRIPTION:** This course presents opportunities for communication study in problem solving, leadership, critical thinking, and creativity. The focus for the work will be current events and mass media. Additionally, students will have opportunities to develop desktop publishing skills on Macintosh computers and prepare stories and news releases for the local media.

##### **DIGITAL CONVERGENCE: YEARBOOK (061121, 061122)**

*2 semesters 2 credits Grades 10-12*  
*Approximate Fee:*  
*Prerequisites: Although, Journalism I is recommended, exceptions can be made with permission of the instructor.*

**COURSE DESCRIPTION:** This is a laboratory class for the production of the school yearbook. Emphasis will be upon developing skills in editing, business management, visual design, and photography. Although Journalism I is recommended as a prerequisite, exceptions can be made with permission of the instructor.

##### **JOURNALISM II: NEWSPAPER (063021, 063022)**

*2 semesters 2 credits Grades 10-12*  
*Approximate Fee:*  
*Prerequisites: Although, Journalism I is recommended, exceptions can be made with permission of the instructor.*

**COURSE DESCRIPTION:** This is a laboratory class for the production of the school newspaper. Emphasis will be upon developing skills in editing, business management, visual design, and photography. Although Journalism I is recommended, exceptions can be made with permission of the instructor.

##### **SPEECH (07101)**

*1 Semester 1 Credit Grades 9-12*  
*Approximate Fee: \$10.00 per semester*  
*A Core 40 and AHD course*

**COURSE DESCRIPTION:** Speech is a one semester elective course offered to students in grades 9, 10, 11, and 12. It teaches students skills in how to speak and listen effectively; the course also emphasizes the development of listening skills. The preparation and presentation of formal speeches and experiences with parliamentary procedure, panel discussion, demonstrations, and oral interpretation are among the activities utilized in the course.

## **WORLD LANGUAGE**

### **WORLD LANGUAGE**

In all World Language courses students engage in the process of mastering the four skills of listening, speaking, reading and writing in the target language. Since individual demonstration of mastery through performance is the goal, students are required to participate actively each day. Students show a willingness to experience various aspects of the cultures studied. Technological resources are utilized at every level, including Internet resources.

The modern World Language courses reflect the standards at the national, state and local levels:

**Goal 1 - Communication: Communicate in Languages other than English**

**Standard 1:** Students engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions.

**Standard 2:** Students understand and interpret written and spoken language on a variety of topics.

**Standard 3:** Students present information, concepts, and ideas to an audience of listeners or readers on a variety of topics.

**Goal 2 - Cultures: Gain Knowledge and Understanding of Other Cultures**

**Standard 4:** Students demonstrate an understanding of the relationship between the practices and perspectives of the culture studied.

**Standard 5:** Students demonstrate an understanding of the relationship between the products and perspectives of the culture studied.

**Goal 3 - Connections: Connect with other Disciplines and Acquire Information**

**Standard 6:** Students reinforce and further their knowledge of other disciplines through the foreign language.

**Standard 7:** Students acquire information and recognize the distinctive viewpoints that are only available through the foreign language and its culture.

**Goal 4 - Comparisons: Develop Insight into the Nature of Language and Culture**

**Standard 8:** Students demonstrate understanding of the nature of language through comparisons of the language studied and their own.

**Standard 9:** Students demonstrate understanding of the concept of culture through comparisons of the cultures studied and their own.

**Goal 5 - Communities: Participate in Multilingual Communities at Home and Around the World**

**Standard 10:** Students use the language both within and beyond the school setting.

**Standard 11:** Students show evidence of becoming lifelong learners by using the language for personal enjoyment and enrichment.

#### **LEVEL I**

*2 semesters 2 Credits*  
*A Core 40, AHD, THD and NCAA course*  
*Prerequisite: None*

**FRENCH 61101 - APPROXIMATE FEE: \$10.00 PER SEMESTER**

**GERMAN 62101 - APPROXIMATE FEE: \$10.00 PER SEMESTER**

**JAPANESE 63101 - APPROXIMATE FEE: \$10.00 PER SEMESTER**

**SPANISH 64101 - APPROXIMATE FEE: \$11.00 PER SEMESTER**

**MANDARIN CHINESE 1 65101 - APPROXIMATE FEE: \$40.00**

Level I World Language students will:

- \* Create and conduct simple conversations related to their needs and interests in the classroom and in public places related to their needs and interests;
- \* Tell about daily routines and events;
- \* Comprehend a variety of written information including advertisements, menus and schedules;
- \* Learn to apply grammatical structures of the target language;
- \* Write simple sentences and respond in writing to various stimuli;
- \* Learn about major holidays and cultural observances of the countries being studied; develop insight into their own language and culture.
- \* Incorporate Internet technology.

#### **LEVEL II**

*2 semesters 2 Credits*  
*A Core 40, AHD, THD and NCAA course*  
*Prerequisite: Level I proficiencies*

**FRENCH II 61202 - APPROXIMATE FEE: \$11.00 PER SEMESTER**

**GERMAN II 62202 - APPROXIMATE FEE: \$11.00 PER SEMESTER**

**JAPANESE II 63202 - APPROXIMATE FEE: \$10.24 PER SEMESTER**

**SPANISH II 64202 - APPROXIMATE FEE: \$11.00 PER SEMESTER**

Level II World Language students:

- \* Communicate about the present, past and future in the classroom and extra-curricular activities;
- \* Learn to give commands and personal opinions;
- \* Interact in conversations and situations such as personal description, travel, environment and profession;
- \* Read simple texts to understand main ideas;
- \* Write personal narratives;
- \* Investigate major geographical features, historical events, and artistic contributions and their relationship to the target culture.
- \* Incorporate Internet technology.

#### **LEVEL III**

*2 semesters 2 Credits*  
*A Core 40, AHD, THD and NCAA course*  
*Prerequisite: Level II proficiencies*

**FRENCH III 61303 - APPROXIMATE FEE: \$11.00 PER SEMESTER**

**GERMAN III 62303 - APPROXIMATE FEE: \$11.00 PER SEMESTER**

**JAPANESE III 63303 - APPROXIMATE FEE: \$12.00 PER SEMESTER**

**SPANISH III 64303 - APPROXIMATE FEE: \$11.00 PER SEMESTER**

Communication becomes more refined as Level III students:

- \* Expand their reading, writing, listening and speaking skills with more complex sentence structure, vocabulary and time frames;
- \* Initiate and participate in discussions using more authentic communication and fewer rote memory phrases;
- \* Read for comprehension from a variety of authentic materials, including short literary selections;

# MATHEMATICS

## MATH AP/ACP OPTIONS

The following is a list of courses in which early college credit or advance placement options are available. Early college credit is available through the Indiana University (ACP) Advanced College Project program. In order to earn Indiana University Credit, students must meet enrollment qualifications, pay tuition set by Indiana University, and earn a C or better in the course. The AP program gives students the opportunity to earn college credit, test out of introductory college courses, or both based on AP Exam grades. It is important to note that each college and university determines its own policies regarding AP Exam grades.

Course #	Course	AP	ACP
17350/17450	Statistics	X	K 300
11315	Calculus AB	X	
11545	Calculus BC	X	M 211/M 212
14401	Finite (Full year)		M 118
16100/16110	Computer Programming	X	

## ALGEBRA ENRICHMENT (11250)

*2 semesters 2 credits*  
*Approximate Fee: \$15.50 per semester*  
*Counts as a Mathematics Course for the General Diploma only or as an Elective for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas*  
*\*\*\*Algebra Enrichment is designed as a support course for Algebra I. As such, a student taking Algebra Enrichment must also be enrolled in Algebra I during the same academic year.*  
*Prerequisites: Successful completion of 8th Grade math, appropriate scores on the math component of 8th Grade ISTEP, and recommendation of 8th Grade math teacher.*

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

## ALGEBRA LAB (11100)

*2 semesters 2 ELECTIVE credits Grades 10-12*  
*Counts as an Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas*  
*Prerequisites: Successful completion of Algebra 1, but Algebra 1 ECA graduation requirement has not been met.*

**COURSE DESCRIPTION:** Algebra Lab provides students with individualized instruction designed to support success in completing mathematics coursework aligned with Indiana's Academic Standards for Mathematics. It is recommended that Algebra Lab is taken in conjunction with a Core 40 mathematics course, and the content of Algebra Lab should be tightly aligned to the content of its corresponding course. Algebra Lab will not be offered in conjunction with Algebra I.

## ALGEBRA (11301)

*2 semesters 2 credits Grade 9*  
*A Core 40, AHD, THD and NCAA course*  
*Approximate Fee: \$22.44 per semester*  
*Prerequisites: Successful completion of 8th Grade math, appropriate scores on the math component of 8th Grade ISTEP, and recommendation of 8th Grade math Teacher.*

**COURSE DESCRIPTION:** Algebra I formalizes and extends the mathematics that students learned in the middle grades. Five critical areas comprise Algebra I: Relations and Functions; Linear Equations and Inequalities; Quadratic and Nonlinear Equations; Systems of Equations and Inequalities; and Polynomial Expressions. The critical areas deepen and extend understanding of linear and exponential relationships by contrasting them with each other and by applying linear models

- \* Present information to an audience on a variety of topics;
- \* Demonstrate their comprehension of and appreciation for historical events and the arts;
- \* Incorporate Internet technology.

## LEVEL IV

*2 semesters, 2 Credits*  
*A Core 40, AHD, THD and NCAA course*  
*Prerequisite: Level III proficiencies*

**FRENCH IV 61404 - APPROXIMATE FEE: \$77.65 PER SEMESTER**

**GERMAN IV 62404 - APPROXIMATE FEE: \$21.00 PER SEMESTER**

**JAPANESE IV 63404 - APPROXIMATE FEE: 11.29 PER SEMESTER**

**SPANISH IV 64404 - APPROXIMATE FEE: \$44.99 PER SEMESTER**

Level IV world language courses enable students to:

- \* Take leadership roles in activities beyond the classroom;
- \* Respond to factual and interpretive questions; interact in complex social situations in the community and the school, express opinions and make judgments;
- \* Give presentations on cultural topics in the target language on cultural topics, including traditions, literature, music, historical and contemporary events and major personalities of selected cultures or periods;
- \* Paraphrase spoken and written information;
- \* Comprehend and discuss a variety of longer authentic materials such as newspapers and magazine articles, novels and essays;
- \* Write well-organized compositions on given topics;
- \* Use the language creatively in writing simple poetry and prose;
- \* Incorporate Internet technology.
- \* Become aware of major literary, musical and artistic genres.
- \* Level V is an honors course and may include independent study (pending teacher permission) outside of the traditional classroom.

## LEVEL V

*2 semesters 2 Credits*  
*A Core 40, AHD, THD and NCAA course*  
*Prerequisite: Level IV proficiencies*

**FRENCH V 61405 - APPROXIMATE FEE: \$10.78 PER SEMESTER**

**GERMAN V 62405 - APPROXIMATE FEE: \$21.00 PER SEMESTER**

**JAPANESE V 63405 - APPROXIMATE FEE:**

**SPANISH V 64405 - APPROXIMATE FEE: \$51.78 PER SEMESTER**

Level V world language courses enable students to:

- \* Participate in activities beyond the classroom which include concerts, theatre performances and community activities;
- \* Participate in conversations with native speakers in the community;
- \* Initiate and participate in conversations on current or past events that are of significance in the foreign culture;
- \* Develop and propose solutions to issues and problems that are of concern to members of their own culture and the foreign culture being studied;
- \* Analyze authentic literary texts;
- \* Create stories and poems, short plays and skits, based on personal experiences;
- \* Exposure to artistic themes, ideas and perspectives from the foreign cultures;
- \* Summarize the content of articles intended for native speakers;
- \* Level V is an honors course and may include independent study (pending teacher permission) outside of the traditional classroom.

to data that exhibit a linear trend, and students engage in methods for analyzing, solving, and using quadratic functions. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

## ALGEBRA RECOVERY (11203 SM1) (11204 SM2)

*1 Semester = 1 Credit*  
*Approximate Fee: \$15.50*

**COURSE DESCRIPTION:** Students failing 1 semester (either fall or spring) of Algebra 11301 can take this course to earn credit for the semester they failed. Through this course, students can immediately retake the semester failed the following semester.

## INDUCTIVE GEOMETRY (11103)

*2 semesters 2 credits Grades 9-12*  
*A Core 40, AHD, THD and NCAA course*  
*Approximate Fee: \$22.44 per semester*  
*Prerequisites: Successful completion of Algebra 1 (11301) and teacher recommendation.*

**COURSE DESCRIPTION:** A less formal approach to Geometry, this course includes the same content as course (11302). Algebra skills are reviewed throughout this class. Proof and deductive reasoning, while a part of the course, are given less emphasis. This course is recommended for students who took the two year Pre-algebra - Algebra sequence. Upon successful completion of this course a student will understand lines, triangles, quadrilaterals, polygons, circles, and other geometrical concepts such as congruence, similarity, area, and volume.

## DEDUCTIVE GEOMETRY (11302)

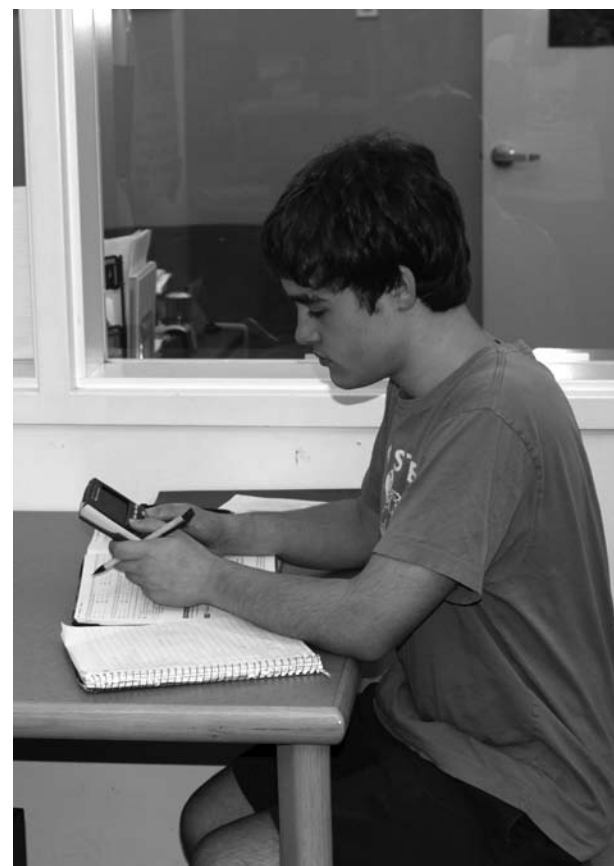
*2 semesters 2 credits Grades 9-12*  
*A Core 40, AHD, THD and NCAA course*  
*Approximate Fee: \$22.44 per semester*  
*Prerequisites: Successful completion of Algebra 1 (11301) and teacher recommendation.*

**COURSE DESCRIPTION:** This course covers the traditional topics of a geometry course. Course (11302) is intended for students whose primary interest is math and science and is somewhat more abstract and theoretical than Course (11103). Upon successful completion of this course a student will understand lines, triangles, quadrilaterals, polygons, circles, and other geometrical concepts such as congruence, similarity, area, and volume. Deductive reasoning and the role of proof in mathematics are strongly emphasized in this course.

## GEOMETRY HONORS (11525)

*2 semesters 2 credits Grade 9*  
*A Core 40, AHD, THD and NCAA course*  
*Approximate Fee: \$22.44 per semester*  
*Prerequisites: Successful completion of Algebra and teacher recommendation*

**COURSE DESCRIPTION:** A continuation of the honors program, the content of the course is that of the usual plane geometry course with some additional topics and enrichment activities. The course is meant to be a teacher directed one, but students will be expected to show some creativity and self-direction toward the learning of math. Upon successful completion of this course a student will understand lines, triangles, quadrilaterals, polygons, circles, and other geometrical concepts such as congruence, similarity, area, and volume.



## ALGEBRA II (11104)

A Core 40, AHD, THD and NCAA course

2 semesters 2 Credits

Approximate Fee: \$20.31 per semester

Prerequisites: Successful completion of Geometry (11103)

Note: Any student who is "doubling up" by taking Geometry and Algebra II the same year should take Algebra II course (11302)

COURSE DESCRIPTION: This course covers the traditional topics of an advanced algebra course. Course (11104) is intended for students whose primary interest is in the arts and social sciences. This course is a preparation for college or other post secondary education, but is not as abstract as Course (11303). Students who took Geometry (11103) are encouraged to take this course. Upon successful completion of this course a student will understand relations & functions, absolute value, quadratic functions, conic sections, polynomials, algebraic fractions, logarithmic & exponential functions, sequences & series, counting principles & probability.

## ALGEBRA II (11303)

2 semesters 2 Credits

A Core 40, AHD, THD and NCAA course

Approximate Fee: \$20.31 per semester

Prerequisites: Successful completion of Geometry (11302)

(This course may be taken concurrently with Geometry (11302))

COURSE DESCRIPTION: This course covers the traditional topics of an advanced algebra course. Course (11303) is intended for students whose primary interest is math and science and is somewhat more abstract and theoretical than Course (11104). Students who took Geometry (11302) are encouraged to take this course. Upon successful completion of this course a student will understand relations & functions, absolute value, quadratic functions, conic sections, polynomials, algebraic fractions, logarithmic & exponential functions, sequences & series, counting principles & probability.

## ALGEBRA II HONORS (11515)

2 semesters 2 Credits

A Core 40, AHD, THD and NCAA course

Approximate Fee: \$20.31 per semester

Prerequisites: Successful completion of Geometry Honors, and/or teacher recommendation.

COURSE DESCRIPTION: This course completes topics from Algebra I that were not covered in the Eighth Grade Honors math course, and then covers the standards of Algebra II. In this class students are expected to show creativity and self direction in their learning of mathematics. Upon successful completion of this course a student will understand relations & functions, absolute value, quadratic functions, conic sections, polynomials, algebraic fractions, logarithmic & exponential functions, sequences & series, counting principles & probability. This is an accelerated class that proceeds at a brisk pace.

## PRE-CALCULUS (11314)

2 semesters 2 credits Grade 11-12

A Core 40, AHD, THD and NCAA course

Approximate Fee: \$18.82 per semester

Prerequisites: Successful completion of Algebra II and teacher recommendation.

COURSE DESCRIPTION: This course covers the traditional topics needed as a preparation for calculus and other higher math classes. Upon successful completion of this course a student will understand polynomial & rational functions, logarithmic & exponential functions, right triangle trig, the trigonometric functions, trig equations & trig identities, polar coordinates & complex numbers, sequences & series, and data analysis.

## PRE-CALCULUS HONORS (11535)

2 semesters 2 credits Grades 11-12

A Core 40, AHD, THD and NCAA course

Approximate Fee: \$18.82 per semester

Prerequisites: Successful completion of Algebra II Honors and/or teacher recommendation.

COURSE DESCRIPTION: This is the final course in the Honors sequence. Self-direction toward the learning of math is essential to success in this class. Upon successful completion of this course a student will understand polynomial & rational functions, logarithmic & exponential functions, right triangle trig, the trigonometric functions, trig equations & trig identities, polar coordinates & complex numbers, sequences & series, and data analysis.

## TRIGONOMETRY (11306)

1 Semester 1 Credit Grade 11-12

A Core 40, AHD, THD and NCAA course

Approximate Fee: \$15.93 per semester

Prerequisites: Successful completion of Algebra II and teacher recommendation.

COURSE DESCRIPTION: Trigonometry includes the study of (1) trigonometry in triangles, (2) trigonometric functions, (3) trigonometric identities and equations, and (4) polar coordinates and complex numbers, (5) radian measure and circular functions.

This course is a preparation for college or other post secondary education, but is not as abstract as the Pre-Calculus course.

## DISCRETE /FINITE MATH (11304)

1 Semester 1 Credit Grade 11-12

A Core 40, AHD, THD and NCAA course

Approximate Fee: \$16.52

Prerequisites: Successful completion of Algebra II and teacher recommendation.

COURSE DESCRIPTION: Discrete/Finite Mathematics is an umbrella of mathematical topics. This course discusses set theory, techniques of counting, probability, linear systems, matrices, and linear programming and includes applications to business and the social sciences

## AP CALCULUS - AB (11315)

2 semesters, 2 Credits Grade 11-12

A Core 40, AHD, THD and NCAA course

Approximate Fee: \$20.36

Prerequisites: Successful completion of Pre-calculus or Pre-calculus Honors and teacher recommendation.

COURSE DESCRIPTION: Calculus AB, Advanced Placement is a course that provides students with the content established by the College Board. Topics include: (1) functions, graphs, and limits: analysis of graphs, limits of functions, asymptotic and unbounded behavior, continuity as a property of functions (2) derivatives: concepts of the derivative, derivative at a point, derivative as a function, second derivatives, application and computation of derivatives, and (3) integrals: interpretations and properties of definite integrals, applications of integrals, fundamental theorem of calculus, techniques of antidifferentiation, and numerical approximations to definite integrals. The use of graphing technology is required.

## AP CALCULUS - BC (191701) (191702) (DUAL CREDIT)

2 semesters, 2 credits Grade 11-12

A Core 40, AHD, THD and NCAA course

Approximate Fee: \$20.36

Prerequisites: Successful completion of Pre-calculus or Pre-calculus Honors and teacher recommendation.

COURSE DESCRIPTION: Calculus BC, Advanced Placement is a course that provides students with the content established by the College Board. Topics include: (1) functions, graphs, and limits: analysis of graphs, limits of functions, asymptotic and unbounded behavior, continuity as a property of functions, and parametric, polar, and vector functions (2) derivatives: concept of the derivative, derivative at a point, derivative as a function, second derivatives, applications of derivatives and computation of derivatives, (3) integrals: interpretations and properties of definite integrals, applications of integrals, fundamental theorem of calculus, techniques and applications of antidifferentiation, and numerical approximations to definite integrals, and (4) polynomial approximations and series: concept of series, series of constants, and Taylor series. The use of graphing technology is required.

## Students may take this course for dual credit, earning up to eight hours of college credit (M 211/ M 212) through Indiana University at the same time they receive 2 high school mathematics credits. In order to earn Indiana University credit, students must meet enrollment qualifications, pay tuition set by Indiana University, and earn a C or better in the course.

## CALCULUS III

Open to grades 11, 12

2 semesters, 1 credit each semester

Approximate Fee:

Meets requirements of: THD, AHD, Core 40, NCAA

Prerequisites: AP Calculus BC and teacher recommendation.

COURSE DESCRIPTION: Calculus III continues the study of Calculus by expanding many of the topics covered in AP Calculus BC to three or more variables. Topics include multivariable functions, vectors, differentiation, integration, and different coordinate systems including polar, cylindrical, and spherical. A T183+, T184 or T189 calculator is required for this class.

## FINITE MATHEMATICS (191705) (DUAL CREDIT)

2 semesters, 2 credits Grade 11-12

A Core 40, AHD, THD and NCAA course

Approximate Fee: \$16.52 per semester

Prerequisites/Corequisites: Precalculus/ Precalculus Honors.

COURSE DESCRIPTION: Finite Mathematics is an umbrella of mathematical topics. This course discusses set theory, techniques of counting, probability, linear systems, matrices, and linear programming and includes applications to business and the social sciences. ## Students may take this course for dual credit, earning three hours of college credit (M118) through Indiana University at the same time they receive 2 high school mathematics credits. In order to earn Indiana University credit, students must meet enrollment qualifications, pay tuition set by Indiana University, and earn a C or better in the course.

## AP STATISTICS (191703) (191704) (DUAL CREDIT)

2 semesters 2 credits Grades 11-12

A Core 40, AHD, THD and NCAA course

Approximate Fee: \$15.62 per semester

Prerequisites: Successful completion of Algebra II.

COURSE DESCRIPTION: This course is equivalent to an introductory college statistics course. Since statistics is a key element of many courses of study in college, any student interested in psychology, sociology, humanities, business, economics, biology/life sciences, medicine, mathematics/statistics, etc. would benefit from this course. The first semester includes a general introduction to exploring data, planning a study, anticipating patterns, and statistical inference. The second semester continues this study with more advanced statistical techniques, with the goal of preparing students for the AP Statistics Exam in the Spring. Upon successful completion of this course a student will be able to use descriptive statistics to create, compare, and evaluate data; use counting techniques and probability to solve problems, and will be able to use statistical inference techniques to reach conclusions.

## AP COMPUTER PROGRAMMING I (16100)

2 semesters 2 credits Grades 10-12

Approximate Fee:

Prerequisites: Successful completion of Algebra (11301).

COURSE DESCRIPTION: The 1st semester focus of this course is on programming fundamentals. Students will learn the basics of C++, data structures and algorithms. Students will learn to subdivide programs into manageable parts and think in a logical, creative way. While programming in a professional language is challenging, the ability to program is undeniably a valuable skill in today's world. Programming in C++ will help one develop the ability to solve problems of all kinds. In the second semester students will study advanced topics in programming. Students will use ready-made classes to simplify work with strings, arrays, and files; and develop their own object oriented classes. Additionally, students will design and program robots in the language of NQC to enable them apply their programming knowledge.

## AP COMPUTER PROGRAMMING II (16110)

2 semesters 2 credits Grades 10-12

Approximate Fee:

Prerequisites: Computer Programming in C++

COURSE DESCRIPTION: Students will study the language of Java. In the Spring of 2004, the AP exam will change from C++ to Java. The course will allow second year programming students the option of studying additional object oriented programming options.

# PERFORMING ARTS

## ADVANCED CONCERT BAND (42203)

### MARCHING, SYMPHONIC AND CONCERT BANDS

2 semesters 2 Credits

Approximate Fee: \$30.00 per semester

A Core 40, AHD and THD course

Prerequisite: Students should have participated in Middle School Band or should have instructor approval.

COURSE DESCRIPTION: Students taking this course are provided with a balanced, comprehensive study of music through concert band, symphonic band, marching band, pep band, and small ensembles. These ensembles will develop skills in the psychomotor, cognitive, and affective domains. Instruction is designed so that students are able to connect, examine, imagine, define, try, extend, refine, and integrate music student into other subject areas. Ensemble and solo performances are designed to develop elements of musicianship including, but not limited to: 1. tone production; 2. instrument technique; 3. intonation; 4. music reading including sight reading; 5. listening skills; 6. analyzing music; and 7. music history. Students develop the ability to understand and convey the composers intent in order to connect the performer and the audience. Students will also have the opportunity to view live performances by professionals during and outside the school day. Public performances are scheduled outside the school day and are required because they are an extension of the classroom learning. Marching band meets during the summer and during the first nine week grading period. All band members are required to participate in the marching band unless they are involved with a fall sport. Students who have a conflict with sports will play in class but not required to march the first nine weeks. Starting the second nine week grading period students will audition for concert band and symphonic band. They will be placed into the ensemble based on their level of playing ability. Both ensembles will have a number of performance experiences throughout the rest of the year.

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

## JAZZ ENSEMBLE I - JAZZ INC. (42204)

1 Semester 1 Credit Grades 9-12

Approximate Fee: \$30.00 per semester

A Core 40, AHD and THD course

Prerequisite: Participation in another band ensemble, or permission of instructor. Audition required.

COURSE DESCRIPTION: Students taking this course develop musicianship and specific performance skills through individual and groups settings in the various types of jazz music. The instruction includes the study of history, formative, and stylistic elements of jazz. Students develop 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, extend, refine, and integrate the various types of jazz into other subject areas.

Students will participate in live performances, which may occur outside the school day. Many of these performances will also include clinic instruction by local and regional jazz artists and teachers. Performances outside of the allotted class period are required in order to support and extend the ultimate goal of the teaching in the classroom, which is performing

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

## INTERMEDIATE ORCHESTRA (42206)

1 Semester 1 Credit Grades 9-12

Approximate Fee: \$30.00 per semester

A Core 40, AHD and THD course

COURSE DESCRIPTION: String Orchestra students are provided with a balanced comprehensive study of music through the orchestra, either string or full, which develops skills in the psychomotor, cognitive, and affective domains. Instruction is designed so that students are able to examine, connect, imagine, 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, and 6. studying historically significant styles of literature. Experiences include, but are not limited to, improvisation, playing by ear, and sight-reading. Students develop the ability to express the composer's intent through the elements of musicianship that will enable the performer to connect with the listener. Opportunities are provided for students

to experience live performances by professionals during and outside of the school day. Time outside the school day is required for some rehearsals and performances. A limited number of public performances may serve as a culmination of the class instruction in the form of a performance.

+ The nature of this course allows for successive semesters of instruction.

## MUSIC HISTORY AND APPRECIATION (43203)

1 Semester 1 Credit Grades 11-12

Approximate Fee:

A Core 40, AHD and THD course

COURSE DESCRIPTION: Students taking this course receive instruction designed to explore music and major style period periods through understanding music in relation to both Western and Non-Western history and culture. Activities include but are not limited to: 1. listening to, and analyzing, and describing music, 2. evaluating music and music performances, and 3. understanding relationships between music and the other arts, as well as disciplines outside of the arts.

## MUSIC THEORY AND COMPOSITION I (43201)

1 Semester 1 Credit Grades 10-12

Approximate Fee: \$100.95 per semester

A Core 40, AHD and THD course

DESCRIPTION: Students taking this course develop skills in the analysis of music and theoretical concepts. Students: 1. develop ear training and dictation skills, 2. compose works that illustrate mastered concepts, 3. understand harmonic structures and analysis, 4. understand modes and scales and key signatures 5. study a wide variety of musical styles, 6. study traditional and non-traditional music notation and sound sources as tools for musical composition, 7. learn basic aural skills including intervals, chords, and rhythmic/melodic dictation.

## MUSIC THEORY AND COMPOSITION II (43201)

1 Semester 1 Credit Grades 11-12

Approximate Fee: \$0.00 per semester

A Core 40, AHD and THD course

COURSE DESCRIPTION: Students taking this course continue their music theory and composition course by further developing skills in the analysis of music and theoretical concepts. They advance in their skills to 1. develop ear training and dictation skills, 2. compose works that illustrate mastered concepts, 3. understand harmonic structures and analysis, 4. understand modes and scales and key signatures, 5. study a wide variety of musical style, 6. study traditional and nontraditional music notation and sound sources as tools for musical composition, 7. learn more advanced aural skills involving intervals, chords and rhythmic and melodic dictation.

## AP MUSIC THEORY (43201)

2 Semesters 2 Credits Grades 9-12

A Core 40, AHD and THD course

Students taking this course develop skills in analysis, composition and theoretical concepts in music. Specifically students: 1. Develop ear training and dictation skills, 2. Harmonic and melodic analysis skills, 3. Compose works that illustrate mastered concepts, 4. Understand music fundamentals, 5. Study a wide variety of musical styles, 6. Study traditional music notation, and 7. Aural skills, including intervals, chords, rhythmic and melodic dictation. The course has a very specific syllabus approved by the College Board as an AP class.



## DANCE PERFORMANCE I - BALLET, JAZZ (44401)

1 Semester 1 Credit Grades 9-12

Approximate Fee:

A Core 40, AHD and THD course

COURSE DESCRIPTION: Students learn elements of dance technique and terminology necessary for performance. Strong emphasis is placed on ballet. Pilates will be utilized for strength and flexibility. Other dance forms may include: jazz, modern, character and Flamenco. A short dance related written assignment will be given each nine weeks.

+ The nature of this course allows for successive semesters of instruction.

## DANCE PERFORMANCE II - BALLET, JAZZ(44402)

1 Semester 1 Credit Grades 9-12

Approximate Fee:

A Core 40, AHD and THD course

Prerequisite: Dance Performance I

COURSE DESCRIPTION: Students continue exploration of elements of technique and terminology. Emphasis continues in ballet with use of Pilates for strength and flexibility. Dance forms in jazz, modern, character and Flamenco also continue. A short dance related written assignment will be given each nine weeks.

+ The nature of this course allows for successive semesters of instruction.

## DANCE PERFORMANCE I - BRIGADE (42214)

1 Semester 1 Credit Grades 9-12

Approximate Fee: \$30.00 per semester

A Core 40, AHD and THD course

Prerequisite: Participation in marching band

COURSE DESCRIPTION: Students continue exploration of elements of technique in Ballet and Jazz. They will continue to demonstrate understanding of style and terminology using simple to complex dance patterns. Students in this course implement various types of guard props including flags, wooden rifles and sabers. Course work includes summer marching band camp and contests

+ The nature of this course allows for successive semesters of instruction.

## DANCE PERFORMANCE I - WINTER GUARD (42211)

1 Semester 1 Credit Grades 9-12

Approximate Fee: \$30.00 per semester

A Core 40, AHD and THD course

Prerequisite: audition required

COURSE DESCRIPTION: Students continue exploration of elements of technique in Ballet and Jazz. They will continue to demonstrate understanding of style and terminology using simple to complex dance patterns. Students in this course implement various types of guard props including flags, wooden rifles and sabers. Students participate in various competitions during the winter guard season.

+ The nature of this course allows for successive semesters of instruction.

## THEATRE ARTS - BEGINNING ACTING (45301)

1 Semester 1 Credit Grades 9-12

Approximate Fee: \$11.00 per semester

A Core 40, AHD and THD course

COURSE DESCRIPTION: Course Description: Beginning Acting is designed for students with little or no training in acting. We work on all skills for acting including but not limited to: improvisation, theatre games, movement and voice. This class prepares students to read plays, discuss current work on stage and in film, and learn the skills necessary to speak and perform in front of others. Class work includes monologues and group work training for performance.

## ADVANCED THEATRE ARTS - ADVANCED ACTING (45302)

1 Semester 1 Credit Grades 9-12

Approximate Fee: \$13.00 per semester

A Core 40, AHD and THD course

COURSE DESCRIPTION: Designed for the student with experience in acting or those who have taken beginning acting, this class continues the art of acting. Activities will improve students' skills through improvisation, development of character analysis and scene analysis and continued work in monologues, group preparation and scene work. Time will be dedicated to career opportunities including instruction in auditioning and interviewing.

+ The nature of this course allows for successive semesters of instruction at an advanced level.

## TECHNICAL THEATRE (45201)

1 Semester 1 Credit Grades 10-12

Approximate Fee:

A Core 40, AHD and THD course

**COURSE DESCRIPTION:** Deals with the technical aspects of theatrical production. By planning original sets, students learn approaches to designing scenery for the stage. In addition they learn the types and functions of equipment used in stage lighting.

## ADVANCED THEATRE ARTS/APPRECIATION AND PRODUCTION (45203)

2 Semesters 2 Credits Grades 9-12

Approximate Fee:

A Core 40, AHD and THD course

**COURSE DESCRIPTION:** Taken together or as separate semesters, this class is a yearlong look at theatre in production. Using film, plays, and interviews with actors and directors, first semester allows students to gain an appreciation of the role of theatre and film in the entertainment industry and cultural medium. Students explore the work of actors, plays and screenplays, the use of an audience and modern technology in the 21st century. They will also be introduced to the role of past work in the creation of present theatre and film. The second semester allows students to gain appreciation of creation and staging of theatre. This will include but not be limited to units on creating sets for the stage, lights, sound effects/soundtracks, costuming and stage make up. We will explore the current professions (designers, dressers, and technicians) and trending professions. We will explore the use of technology in the evolving world of technical theatre. Emphasis will be on tried and true methods with an eye toward current and near future technology in the theatre world.

## THEATRE ARTS HISTORY (45303)

2 semesters 2 credits Grades 11-12

Approximate Fee:

A Core 40, AHD and THD course

**COURSE DESCRIPTION:** Instruction in this course provides students with opportunities to : 1) study plays that reflect a wide variety of styles, historical periods and cultures; 2) study the elements of theatrical work including exposition, rising action, climax, conclusion and denouement; and 3) study the elements of play production. Students are given opportunities to analyze and evaluate live theatre experiences. This process of study, analysis and evaluation enables students to learn to make personal artistic choices and aesthetic evaluations of a theatrical work.

## ADVANCED THEATRE ARTS - SHAKESPEARE (45402)

1 Semester 1 Credit Grades 10-12 or with permission of instructor

Approximate Fee: \$17.94

A Core 40, AHD and THD course

Prerequisite: Theatre Arts course(s) or permission of instructor

**COURSE DESCRIPTION:** Explore the work of William Shakespeare as a student of performing arts. Explore

character, plot and theme as those performing, designing and creating the world of the play. Student enrollment determines the plays to be studied.

+ The nature of this course allows for successive semesters of instruction.

## ADVANCED THEATRE ARTS III - SHAKESPEARE (45402)

1 Semester 1 Credit Grades 10-12 or with permission of instructor

Approximate Fee: \$17.94

A Core 40, AHD and THD course

Prerequisite: Theatre Arts course(s) or permission of instructor

**COURSE DESCRIPTION:** Students continue their exploration of William Shakespeare's plays through the eyes of theatre. Create the world of the play with continued study of plays based on student enrollment.

+ The nature of this course allows for successive semesters of instruction.

## ADVANCED THEATRE ARTS IV - INDEPENDENT STUDIES (45405)

1 Semester 1 Credit Grades 10-12

Approximate Fee:

A Core 40, AHD and THD course

Prerequisite: Theatre Arts

**COURSE DESCRIPTION:** An individualized course in the study of theatre with emphasis upon the student's area of interest. The course is offered only to students who have decided to pursue a career in theatre. Each course will be designed to fit the needs of a particular student.

+ The nature of this course allows for successive semesters of instruction.

## ADVANCED THEATRE ARTS V - MAKE UP (45202)

1 Semester 1 Credit Grades 9-12

Approximate Fee:

**COURSE DESCRIPTION:** Instruction for students interested in the art of make up and its role in theatre with emphasis on the fundamentals of technique and application as well as corrective make up, old age and special effect make up.

## BEGINNING CHORUS - CONCERT CHOIR (41401)

2 semesters 2 credits Grades 9-12

Approximate Fee: \$50.00 per semester

A Core 40, AHD and THD course

**COURSE DESCRIPTION:** Students enrolled in Beginning Chorus at the High School Level develop musicianship and performance skills through ensemble and solo singing. This chorus is a mixed ensemble experience. Activities include, but are not limited to, development of quality literature in diverse styles appropriate in difficulty and range for the students. Conducting, listening to, analyzing, performing, and creating music in all historical stylistic periods is explored. The composer's intent is also studied. A limited amount of time outside the classroom for dress rehearsals and performances should be expected. All performances are mandatory and used as culminating experiences for students to apply concepts learned in the classroom.

+The nature of this course allows for successive semesters of instruction.

## BEGINNING CHORUS - OLYMPIAN CHOIR (41501)

2 semesters 2 credits Grades 9-12

Approximate Fee: \$50.00 per semester

A Core 40, AHD and THD course

**COURSE DESCRIPTION:** Students enrolled in this course develop musicianship and performance skills through ensemble and solo singing. This course is primarily a treble voice experience. Activities include development of quality literature in diverse styles appropriate in difficulty and range for the students. Conducting, listening to analyzing performing and creating music in all historical stylistic periods is explored. The composer's intent is also studied. A limited amount of time outside the classroom for dress rehearsals and performances should be expected. All performances are mandatory and used as a culminating experience for students to apply concepts learned in the classroom.

+ The nature of this course allows for successive semesters of instruction.

## INTERMEDIATE CHORUS - CENTER STAGE/ SHOW CHOIR (41601)

2 semesters 2 credits Grades 9-12

Approximate Fee: \$50.00 per semester

A Core 40, AHD and THD course

Prerequisite: audition required

**COURSE DESCRIPTION:** Intermediate Chorus provides students to develop musicianship and specific performance skills through ensemble and solo singing. This is a mixed choral ensemble with some dance movement. A diverse repertoire is stressed. Music of all historical stylistic periods of music is learned and explored so students will be able to identify and all music from each period. Instruction is designed to enable students to connect music with other subject areas. In addition, instruction is given to each student to enable them to identify the composer's intent through musical notation and expressive terminology. A limited amount of time outside of the classroom for dress rehearsals, competitions, and performances will occur, and is mandatory. The main focus of these performances is to apply concepts learned in the classroom.

Choral repertoire should be developmentally appropriate. Additional emphasis is placed on sight-reading, critical listening skills, vocal technique and proper concert etiquette.

+ The nature of this course allows for successive semesters of instruction.

## CHORAL CHAMBER ENSEMBLE - CHAMBER SINGERS (41602)

2 semesters 2 credits Grades 9-12

Approximate Fee:

A Core 40, AHD and THD course

Prerequisite: audition required

**COURSE DESCRIPTION:** Student musicianship and specific performance skills in this course are enhanced through specialized small group instruction. Emphasis is placed on performance practices of early music and the Renaissance including music, which coincides with, eras students are discussing in world history. Chamber Singers provide instruction in creating, performing, listening to and analyzing music to understand the composer's intent within the historical stylistic period. Students may have the opportunity to experience live performances by professionals during or outside the school day. A limited amount of time will be scheduled outside of the school day for dress rehearsals and performances, which serve as culminating events of concepts learned in the classroom. All performances are mandatory.

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

## APPLIED MUSIC - SOLO WORKSHOP (41603)

1 Semester 1 Credit Grades 9-12

Approximate Fee:

A Core 40, AHD and THD course

**COURSE DESCRIPTION:** Applied music offers high school students the opportunity to receive private instruction in voice or piano to develop performance skills. A variety of repertoire is used and tailored to each individual student depending on experience. Instruction is also designed to enable the student to connect music with other subject areas.

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# PHYSICAL EDUCATION

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## HEALTH AND WELLNESS 47301

1 Semester 1 Credit Grades 9-12

Approximate Fee:

A Core 40, AHD and THD course - This course fulfills the state graduation requirement

**COURSE DESCRIPTION:** The course focuses on knowledge and practice of a health life style. Topics include mental health, growth and development, sexuality, First Aid, CPR, AED, drug and alcohol abuse, nutrition, diseases and disorders, body systems, and family relationships. Students will be able to analyze how behavior can impact health maintenance and disease prevention; analyze the role of individual responsibility of enhancing health; evaluate the effect of various factors on personal, family and community health; demonstrate skills for communicating effectively with family, peers, and others; and explore opportunities for healthy lifetime activities available in the community.

## PHYSICAL EDUCATION - TEAM (71101)

2 semesters 2 credits Grade 9-11 ONLY

Approximate Fee: \$4.00 per semester

A Core 40, AHD and THD course - This course fulfills the state graduation requirement

**COURSE DESCRIPTION:** Activities are mostly team sports and include: softball, basketball, fitness activities, fitness principles, volleyball, team handball, weight training, swimming, games, and soccer. Physical Educa-



tion is designed to give the student an opportunity to develop an interest in a wide range of activities. Rules and basic fundamentals are taught and actual participation is required. Through this participation students develop physical fitness, recreational interests, desirable leadership qualities, appropriate social interaction techniques and an appreciation of health, exercise and sportsmanship.

#### **PHYSICAL EDUCATION - INDIVIDUAL (71102)**

*2 semesters 2 credits Approximate Fee: \$4.00 per semester*

*A Core 40, AHD and THD course - This course fulfills the state graduation requirement*

**COURSE DESCRIPTION:** The second semester activities are mostly individual sports and include: dance, weight training, aerobics, bowling, tennis, golf, table tennis, badminton, pickleball, hand-ball, fitness activities, games, and swimming. The course is designed to give the student an opportunity to develop an interest in a wide range of sports. Rules and basic fundamentals are taught and actual participation is required. Each student is given an opportunity to develop physical fitness, recreational interests, desirable leadership qualities, appropriate social interaction techniques, and an appreciation of health, exercise, and sportsmanship.

#### **PHYSICAL EDUCATION WAIVER (71201, 71202)**

*1 semester, 1 credit*

*A Core 40, AHD and THD course - This course fulfills the state graduation requirement*

**COURSE DESCRIPTION:** Beginning with school year 2010-2011 students may elect to "waiver" out of the traditional required semesters of Physical Education through a series of four categories. These categories are described in an informational packet from the Physical Education Department. Please contact the Physical Education Department with any questions (376-4365).

#### **LEADERSHIP DEVELOPMENT (74401)**

*1 semester, 1 credit*

*Approximate Fee: \$37.98*

**COURSE DESCRIPTION:** A course designed to instruct present and future leaders the traits, qualities and skills necessary in serving others in a leadership capacity. Areas of study in leadership traits include: Character, Compassion, Commitment, Communication, Focus, Vision, Self-Discipline, and Problem Solving. Activities to build leadership skills include exercises in self-awareness and self-esteem, character education, community relations, staff and faculty relations, involvement and diversity training, guest speakers that are currently in a leadership role. Various school and community service projects will be emphasized.

#### **ELECTIVE PHYSICAL EDUCATION - ADVANCED PHYSICAL EDUCATION (76011, 76022)**

*1 Semester 1 Credit Grades 9-12*

*Approximate Fee: \$4.00 per semester*

*Prerequisites: Physical Education I & II*

**COURSE DESCRIPTION:** This course is designed to promote lifetime sport and recreational activities and provides an opportunity for an in-depth study in a number of specific areas. Physical development concepts and principles of sport and exercise as well as opportunities to refine skills and attitudes promoting lifelong fitness are emphasized. Health-related fitness activities, team sports and individual sports are the content by which the following objectives are met: 1) demonstrates competency in many movement forms; 2) achieves and maintains a health-enhancing level of physical fitness; and 3) demonstrates responsible personal and social behavior in physical activity settings. Classes are co-educational unless the activity involves bodily contact or groupings are based on an objective standard of individual performance developed and applied without regard to gender.

#### **ELECTIVE PHYSICAL EDUCATION - WEIGHT LIFTING (77520, 77522)**

*1 Semester 1 Credit Grades 9-12*

*Approximate Fee: \$4.00 per semester*

**COURSE DESCRIPTION:** Elective Physical Education - Weight Lifting promotes proper weight lifting techniques and fitness using the Bigger-Faster-Stronger program. Students will be involved in strength training 3 days per week and fitness/agility activities 2 days per week. The program includes: 1) the Bigger-Faster-Stronger program; 2) speed development; 3) endurance training; 4) plyometrics; and 5) flexibility. Students will know: 1) proper strength training techniques; 2) how to keep accurate performance records; and 3) different fitness activities. Emphasis in all activities will be safety and desired outcome.

#### **DRUG AND ALCOHOL EDUCATION (77001)**

*1 Semester 1 Credit Grades 9-12*

*Approximate Fee:*

**COURSE DESCRIPTION:** The course will take an in-depth look at what research shows about the harmful effects of the various drugs available in America today. The course will look at the personality of high-risk individuals. It will also provide a look at the various resources available to help those who have a problem with substance abuse. Films and guest speakers will add to the enrichment of the class.

#### **ATHLETIC TRAINING (77002)**

*Approximate Fee: \$17.00 per semester*

**COURSE DESCRIPTION:** This course is designed to introduce students to the prevention, identification, and management of athletic injuries. Students interested in health care and athletic participation are encouraged to take this course. Upon completion of this course students will be able to identify anatomical structures, relate structure and function, prevent athletic injuries through the use of prophylactic taping and design of sport-specific conditioning programs, and care for athletic injuries using a variety of injury management skills.

## **SCIENCE**

#### **EARTH AND SPACE SCIENCE - OTHER (L) (233011, 233012)**

*2 semesters 2 Credits*

*Approximate Fee: \$20.00 per semester*

*A Core 40, AHD, THD and NCAA course*

**COURSE DESCRIPTION:** Earth and Space Science provides a study of the basic concepts of geology, meteorology, astronomy, oceanography, landforms, and energy transfer in forming and modifying the earth and its environment. Through laboratory activities, computer activities, small group discussions and demonstrations, large group lectures and presentations using appropriate videos, CD's and laser disc materials and demonstrations, the students gain an understanding of the basic concepts of Earth and Space Science, to explore various possible Earth and Space careers, and to gain insight into possible environmental and social issues.

#### **ADVANCED EARTH AND SPACE SCIENCE (DUAL CREDIT) \*NEW\***

*2 semesters, 2 credits*

*Approximate Fee:*

*A Core 40, AHD, THD and NCAA course*

**COURSE DESCRIPTION:** Advanced Earth/Space Science is a one-year laboratory course designed for students who will take upper level science courses and are pursuing science related careers and occupations. This course is designed for students to learn the knowledge and skills included in the IU ACP Program for geology. In addition to geology, students will investigate the disciplines of astronomy, meteorology, oceanography, paleontology, and evolution. Advanced Earth/Space Science will strengthen the student's basic investigative skills, enhance their ability to process information, and prepare them to make rational decisions concerning humankind's place on Earth. Advanced Earth/Space Science is a pilot course for the 2012-2013 school year.

#### **OCEAN SCIENCE (230001, 230002)**

*2 semesters 2 Credits*

*Approximate Fee: \$40.00 per semester*

*A Core 40, AHD, THD and NCAA course*

*Prerequisites: Biology plus either Physics,*

*Chemistry or Earth/Space*

*Grades: 11, 12*

**COURSE DESCRIPTION:** Ocean science integrates the four major science disciplines as students uncover how the ocean and its inhabitants affect every part of our lives. Students use laboratory, research, technology and field work to inquire about the chemical and physical properties of ocean water, the causes and influences of waves, tides, currents, and tectonic activities, the diversity of life in and around the oceans, and the interactions between physical and biological processes. Students uncover how marine processes influence life on land, and investigate human impact on ocean stability.

#### **BIOLOGY I (L) (214011, 214012)**

*2 semesters 2 Credits*

*Approximate Fee: \$20.00 per semester*

*A Core 40, AHD, THD and NCAA course*

**COURSE DESCRIPTION:** This course is a survey of the structures and functions of living things and their interactions with and within their environment. Through laboratory and field investigations, students will learn that organisms are made of cells that are composed of the same materials and limited by the same physical laws as all other matter. Students will be able to relate

these discoveries to the functions of cells, tissues, organs, and systems within various species of organisms. Students will also be able to explain the roles of organisms within populations, communities, and ecosystems of the biosphere. Students will connect these concepts through review of the history and development of biological knowledge, the identification of biology in various careers, and the discussion of the role of biology in health and social issues.

#### **BIOLOGY II ADVANCED PLACEMENT (L) (21200) (DUAL CREDIT)**

*2 semesters 2 Credits*

*Approximate Fee: \$23.00 per semester*

*A Core 40, AHD, THD and NCAA course*

*Prerequisites: Biology I & Chemistry I*

**COURSE DESCRIPTION:** This course follows the College Board guidelines for Advanced Placement Biology and meets requirements for Indiana University Bloomington's ACP Program for Biology. Students in AP Biology have the option to add a dual credit enrollment with IU Bloomington for either L100 or L112. Biology L100 is a 5 credit course for non-science majors while L112 is a 3 credit course for science majors. Students will also be encouraged to take the AP Biology exam to qualify for college credit. The students in this course will gain a thorough understanding of the organization, function, and adaptation of organisms. Students will learn basic facts and principles about living things, how biological research has discovered these facts and how these facts may be applied to ongoing research. Topics studied in the course include ecology, biochemistry, genetics, biotechnology, and microbiology. College level laboratory exercises along with the Advanced Placement Labs combine to form a major laboratory component emphasizing important themes in the course.

#### **CHEMISTRY I (L) (224011, 224012)**

*2 semesters 2 Credits*

*Approximate Fee: \$20.00 per semester*

*A Core 40, AHD, THD and NCAA course*

*Prerequisites: Prealgebra*

**COURSE DESCRIPTION:** This course will guide students in learning to synthesize useful models of the structure of matter and the mechanisms of its interactions through laboratory investigations of matter and its chemical reactions. Students will gain an understanding of the history of chemistry, explore the uses of chemistry in various careers, cope with chemical questions and problems related to personal needs and social issues and learn and practice laboratory safety.

#### **CHEMISTRY - ADVANCED PLACEMENT (L) (22410) (INDIANA UNIVERSITY C105/125) (DUAL CREDIT)**

*2 semesters 2 Credits*

*Approximate Fee: \$28.00 per semester*

*A Core 40, AHD, THD and NCAA course*

*College Credit may be granted by Indiana University*

*Prerequisites: Chemistry I*

**COURSE DESCRIPTION:** This course follows College Board Entrance Examination guidelines for Advanced Placement Chemistry. This course also is designed for students to learn the knowledge and skills included in the Indiana University ACP Program for chemistry. It is an in-depth study of chemistry, including organic chemistry and Spectrophotometry, Organic Synthesis, Limiting Reactants and Chemical Analysis. Students learn the skills and theory to perform experiments included in the AP Chemistry guidelines.

#### **PHYSICS I (L) (241111, 241112)**

*2 semesters 2 Credits*

*Approximate Fee: \$35.00 per semester*

*A Core 40, AHD, THD and NCAA course*

*Prerequisite: Intro to Algebra or Algebra I*

**COURSE DESCRIPTION:** This course is designed so that the students will learn the basics of gravity, light and sound waves, optical instruments, electricity and magnetism, dynamics, kinematics, nuclear and atomic physics, radioactivity and energy and momentum. This study is achieved through large group demonstration lecture, laboratory work, small group discussion and homework. The student will see and understand the broad application and success of physics in the world through an awareness of physics history, its role in the birth of technology, the exploration of the usefulness of physics in various careers and the application of physics to personal and societies issues.

## PHYSICS II - ADVANCED PLACEMENT (L) (242201, 242202)

2 semesters 2 Credits

Approximate Fee: \$29.00 per semester

A Core 40, AHD, THD and NCAA course

Prerequisites: Physics I

**COURSE DESCRIPTION:** This course follows College Board Entrance Examination guidelines for Advanced Placement Physics. This course is designed so the student will capture the knowledge and develop the skills included the AP Physics standards. Through the laboratory work, lectures, homework and class discussions the student will understand the broad application and success of physics in the world. The topics include Newtonian Mechanics, Relativistic Mechanics, Electricity and Magnetism, Fluid Mechanics, Thermal Physics, Atomic Physics, Nuclear Physics, Waves and Optics. All students may take the AP Physics Exam to qualify for college credit.

## INTEGRATED CHEMISTRY-PHYSICS (ICP) \*NEW\*

2 Semesters, 2 credits

Approximate Fee:

A Core 40, AHD, THD and NCAA course

**COURSE DESCRIPTION:** Integrated Chemistry-Physics (ICP) is a course focused on the following core topics: motion and energy of macroscopic objects; chemical, electrical, mechanical and nuclear energy; properties of matter; transport of energy; magnetism; energy production and its relationship to the environment and economy. Instruction will focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation by designing and conducting investigations. The results of the investigations will be evaluated and communicated according to accepted procedures. This course requires a recommendation from a CEHS teacher, administrator or counselor. ICP is a pilot course for the 2012-2013 school year.

## BIOLOGY II - HUMAN ANATOMY & PHYSIOLOGY (L) (215211, 215212) (DUAL CREDIT)

2 semesters 2 Credits

Approximate Fee: \$35.62

A Core 40, AHD, THD and NCAA course

Prerequisites: Biology I, Chemistry I

**COURSE DESCRIPTION:** Human Anatomy and Physiology is a comprehensive study of the structures comprising the human organ systems, the molecular, chemical, and cellular causation of their functions, and their integrative roles in the growth, development, and homeostatic maintenance of the human body. This course is particularly relevant for students interested in health and medical professions, fitness and athletics, anthropology, or healthy lifestyles.

## BIOLOGY II - HUMAN GENETICS (27001)

1 semester, 1 credit

A Core 40, AHD, THD and NCAA course

Approximate Fee: \$38.00 per semester

Prerequisites: Biology I & Chemistry I

**COURSE DESCRIPTION:** This course focuses on an in-depth study of human genetics. Recent developments in the field of genetic engineering, cloning, birth defects and inherited birth defects are discussed. Physical and mental disorder which occurs through action or inaction of genes and environmental effects on heredity are studied.



## BIOLOGY II - MEDICAL (L) (21501)

2 semesters 2 Credits

Approximate Fee: \$52.44 per semester

A Core 40, AHD, THD and NCAA course

Prerequisites: Biology I

**COURSE DESCRIPTION:** Medical Biology is designed for students to learn the knowledge and skills necessary to consider a professional/technical medical career. Building on human anatomy and physiology, the students learn the normal function of the major body systems with an emphasis on disease conditions and their treatment. Students also participate in lab experiences, group work, local medical professional speakers seminars, and field trips enrich course experiences.

## ADVANCED LIFE SCIENCE: ANIMALS (255011, 255012)

2 semesters, 2credits Grades 11-12

Approximate Fee: \$20.39 per semester

A Core 40, AHD, THD and NCAA directed

elective or science credit as part of the technical career area.

**COURSE DESCRIPTION:** Advanced Life Science, Animals, is a standards-based, interdisciplinary science course that integrates biology, chemistry, and microbiology in an agricultural context. Students enrolled in this course formulate, design, and carry out animal-based laboratory and field investigations as an essential course component. Students investigate key concepts that enable them to understand animal growth, development, and physiology as it pertains to agricultural science. This course stresses the unifying themes of both biology and chemistry as students work with concepts associated with animal taxonomy, life at the cellular level, organ systems, genetics, evolution, ecology, and historical and current issues in animal agriculture. Students completing this will be able to apply the principles of scientific inquiry to solve problems related to biology and chemistry in highly advanced agricultural applications of animal development. This course counts as science credits.

## ADVANCED LIFE SCIENCE: FOODS (255021, 255022)

2 semesters, 2 credits Grades 11-12

Approximate Fee: \$10.00 per semester

A Core 40, AHD, THD and NCAA directed

elective or science credit as part of the technical career area.

**COURSE DESCRIPTION:** Advanced Life Science, Foods, is a standards-based, interdisciplinary science course that integrates biology, chemistry, and microbiology in an agricultural context. Students enrolled in this course formulate, design, and carry out food-based laboratory and field investigations as an essential course component. Students investigate key concepts that enable them to understand how biology, chemistry, and physics principles apply to the composition of foods, food nutrition and development, food processing, and storage. Students completing this will be able to apply the principles of scientific inquiry to solve problems related to biology and chemistry in highly advanced agricultural applications of food. This course counts as science credits.

## ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE (270211, 270212) \*NEW\*

2 semesters, 2 credits

Approximate Fee: \$41.93 per semester

A Core 40, AHD, THD and NCAA course

Prerequisites: Biology I, Chemistry I, Physics (Recommended)

**COURSE DESCRIPTION:** This course covers the following topics: Earth Systems and Resources, The Living World, Population, Land and Water Use, Energy Resources and Consumption, Pollution and Global Change. The class also requires a great amount of lab and field work to meet the criteria of the course requirements.

# SOCIAL STUDIES

## GEOGRAPHY AND HISTORY OF THE WORLD (31102)

2 semesters, 2 credits Grade 9

Approximate Fee: \$9.15 per semester

A Core 40, AHD, THD, and NCAA course

**COURSE DESCRIPTION:** Geography and History of the World is designed to enable students to use geographical skills and historical concepts to deepen their understanding of major global themes including the origin and spread of world religions; exploration; conquest, and imperialism; urbanization; and innovations and revolutions.

Geographical and historical skills include forming research questions, acquiring information by investigating a variety of primary and secondary sources, organizing information by creating graphic representations, analyzing information to determine and explain patterns and trends, and presenting and documenting findings orally and/or in writing. The historical geography concepts used to explore the global themes include change over time, origin, diffusion, physical systems, cultural landscapes, and spatial distribution and interaction. Using these skills, concepts and the processes associated with them, students are able to analyze, evaluate, and make predictions about major global developments. This course is designed to nurture perceptive, responsible citizenship, encourage and support the development of critical thinking skills and lifelong learning, and to help prepare Indiana students for the 21st Century.

## GLOBAL STUDIES - GEOGRAPHY AND HISTORY OF THE WORLD (31111)

2 semesters, 2 credits Grade 9

Approximate Fee: \$9.15 per semester

A Core 40, AHD, THD, and NCAA course

**COURSE DESCRIPTION:** Global Studies combines Geography and History of the World and English 9 and is team-taught by a social studies teacher and an English teacher in a two mod block. The blending of these courses will allow students to make connections between World Geography, World History, and literature of the world. The Geography and History of the World component is designed to enable students to use geographical skills and historical concepts to deepen their understanding of major global themes including the origin and spread of world religions; exploration; conquest, and imperialism; urbanization; and innovations and revolutions.

Geographical and historical skills include forming research questions, acquiring information by investigating a variety of primary and secondary sources, organizing information by creating graphic representations, analyzing information to determine and explain patterns and trends, and presenting and documenting findings orally and/or in writing. The historical geography concepts used to explore the global themes include change over time, origin, diffusion, physical systems, cultural landscapes, and spatial distribution and interaction. Using these skills, concepts and the processes associated with them, students are able to analyze, evaluate, and make predictions about major global developments. This course is designed to nurture perceptive, responsible citizenship, encourage and support the development of critical thinking skills and lifelong learning, and to help prepare Indiana students for the 21st Century. See Global Studies - English 9 section for the English component of Global Studies. Students taking Global Studies will earn 4 credits (2 for English 9 and 2 for Geography and History of the World).

## HUMAN GEOGRAPHY - ADVANCED PLACEMENT (31105)

2 semesters, 2 credits Grades 9-12

Approximate Fee: \$18.32 per semester

A Core 40, AHD, THD, and NCAA course

**COURSE DESCRIPTION:** Human Geography, Advanced Placement is a course based on the content established by the College Board, and students will be prepared to take the AP exam for college credit. 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 comprehensive description of this course can be found on the College Board AP Central

Course Description web page at:  
<http://apcentral.collegeboard.com/apc/public/courses/descriptions/index.html>

### **UNITED STATES HISTORY (32302)**

*2 semesters, 2 credits Grade 11*

*Approximate Fee: \$4.19 per semester*

*A Core 40, AHD, THD, and NCAA course*

**COURSE DESCRIPTION:** United States History builds upon concepts developed in previous studies of U.S. History. Students are expected to identify and review significant events, persons, and movements in the early development of the nation. The course then gives major emphasis to the interaction of key events, people, and political, economic, social, and cultural influences in national developments from the late nineteenth century through the present. Students are expected to trace and analyze chronological periods and examine the significant themes and concepts in U.S. History. They will develop historical thinking and research skills and use primary and secondary sources to explore topical issues and to understand the cause for changes in the nation over time.

### **UNITED STATES HISTORY - ADVANCED PLACEMENT (32300)**

#### **ACP AMERICAN HISTORY - COLLEGE CREDIT (DUAL CREDIT)**

*2 semesters, 2 credits Grades 10-11*

*Approximate Fee: \$26.37 per semester*

*A Core 40, AHD, THD, and NCAA course*

**COURSE DESCRIPTION:** United States History - Advanced Placement is a course based on the content established by the College Board, and students will be prepared to take the AP exam for college credit. The course has a chronological frame from 1492 to the present and focuses on multiple causation and change in United States history over time. A variety of historical themes are examined in order to place the history of the United States into larger analytical contexts. Students are expected to analyze and interpret primary sources and develop awareness of multiple interpretations of historical issues in secondary sources. Historical events and issues in U.S. history are to be examined from multiple perspectives. A comprehensive description of this course can be found on the College Board AP Central Course Description web page at:

<http://apcentral.collegeboard.com/apc/public/courses/descriptions/index.html>

**COURSE DESCRIPTION:** ACP American History - College Credit covers the evolution of American society: political, economic, social structure; racial and ethnic groups; sex roles; Indian, inter-American, and world diplomacy of the United States; evolution of ideology, war, territorial expansion, industrialization, urbanization, international events and their impact on American history.

This course enables students to earn up to six hours of college credit (Indiana University HIST H105 and H106 - American History I and II) at the same time they receive 2 high school credits. In order to earn Indiana University credit, students must pay tuition set by Indiana University and must earn a C or better in the course. NOTE: The availability of United States History - Advanced Placement and/or ACP American History - College Credit will be based on student enrollment and teacher certification.

### **AMERICAN STUDIES - UNITED STATES HISTORY (32311)**

*2 semesters, 2 credits Grade 11*

*Approximate Fee: \$4.19 per semester*

*A Core 40, AHD, THD, and NCAA course*

**COURSE DESCRIPTION:** American Studies combines U.S. History and English

11 and is team-taught by a social studies teacher and an English teacher in a two mod block. The blending of these courses will allow students to make connections between major American historical themes and American literature. The United States History component of the course builds upon concepts developed in previous studies of U.S. History. Students are expected to identify and review significant events, persons, and movements in the early development of the nation. The course then gives major emphasis to the interaction of key events, people, and political, economic, social, and cultural influences in national developments from the late nineteenth century through the present. Students are expected to trace and analyze chronological periods and examine the significant themes and concepts in U.S. History. They will develop historical thinking and research skills and use primary and secondary sources to explore topical issues and to understand the cause for changes in the nation over time.

See American Studies - English 11 section for the English component of American Studies. Students taking American Studies will earn 4 credits (2 for English 11 and 2 for U.S. History).

### **UNITED STATES GOVERNMENT (35402)**

*1 semester, 1 credit Grade 12*

*Approximate Fee: \$4.19*

*A Core 40, AHD, THD, and NCAA course*

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

### **UNITED STATES GOVERNMENT AND POLITICS - ADVANCED PLACEMENT**

#### **(35100)/ACP INTRODUCTION TO AMERICAN POLITICS - COLLEGE CREDIT**

*2 semesters, 2 credits Grades 11-12*

*Approximate Fee: \$19.26 per semester*

*A Core 40, AHD, THD, and NCAA course*

**PREREQUISITE:** *It is highly recommended that U.S. History, U.S. History AP, or American Studies be taken before taking this course.*

**COURSE DESCRIPTION:** United States Government and Politics, Advanced Placement is a course based on content established by the College Board, and students will be prepared to take the AP exam for college credit. Topics include: (1) constitutional underpinnings of United States government, (2) political beliefs and behaviors, (3) political parties, interest groups, and mass media, (4) institutions of national government, (5) public policy, and (6) civil rights and civil liberties. A comprehensive description of this course can be found on the College Board AP Central Course Description web page at:

<http://apcentral.collegeboard.com/apc/public/courses/descriptions/index.html>

**COURSE DESCRIPTION:** ACP Introduction to American Politics - College Credit is an introduction to the nature of government and the dynamics of Ameri-

can politics and the origin and nature of the American federal system and its political party base. This course enables students to earn up to three hours of college credit (Indiana University POLS Y103 - Introduction to American Politics) at the same time they receive 2 high school credits. In order to earn Indiana University credit, students must pay tuition set by Indiana University and must earn a C or better in the course.

NOTE: The availability of United States Government and Politics - Advanced Placement and/or ACP Introduction to American Politics - College Credit will be based on student enrollment and teacher certification.

### **ECONOMICS (36402)**

*1 semester, 1 credit Grade 12*

*Approximate Fee: \$4.19*

*A Core 40, AHD, THD, and NCAA course*

**COURSE DESCRIPTION:** Economics examines the allocation of resources and their uses for satisfying human needs and wants. The course analyzes economic reasoning used by consumers, producers, savers, investors, workers, voters, and government in making decisions. Key elements of the course include study of scarcity and economic reasoning, supply and demand, market structures, role of government, national income determination, the role of financial institutions, economic stabilization, and trade. Students will explain that because resources are limited, people must make choices and understand the role that supply, demand, prices, and profits play in a market economy. The functions of government in a market economy and market structures will be examined. Students will understand economic performance, money, stabilization policies, and trade of the United States. The behavior of people, societies and institutions and economic thinking is integral to this course.

### **MICROECONOMICS - ADVANCED PLACEMENT (36200)/ACP INTRODUCTION TO MICROECONOMICS - COLLEGE CREDIT**

*2 semesters, 2 credits Grades 11-12*

*Approximate Fee: \$28.33 per semester*

*A Core 40, AHD, THD, and NCAA course*

**PREREQUISITE:** *It is highly recommended that U.S. History, U.S. History AP, or American Studies be taken before taking this course.*

**COURSE DESCRIPTION:** Microeconomics, Advanced Placement is a course based on content established by the College Board, and students will be prepared to take the AP exam for college credit. The course gives students a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the economics system. Topics include: (1) basic economic concepts, (2) the nature and functions of product markets, (3) factor markets, and (4) market failure and the role of government. A comprehensive description of this course can be found on the College Board AP Central Course Description web page at:

<http://apcentral.collegeboard.com/apc/public/courses/descriptions/index.html>

**COURSE DESCRIPTION:** ACP Introduction to Microeconomics - College Credit covers scarcity, opportunity cost, competitive and non-competitive market pricing, and interdependence as an analytical core. Individual sections apply this core to a variety of current economic policy problems, such as poverty, pollution, excise taxes, rent controls, and farm subsidies. This course enables students to earn up to three hours of college credit (Indiana University ECON E201 - Introduction to Microeconomics) at the same time they receive 1 high school credit. In order to earn Indiana University credit, students must pay tuition set by Indiana University and must earn a C or better in the course.

NOTE: The availability of Microeconomics - Advanced Placement and/or ACP Introduction to Microeconomics - College Credit will be based on student enrollment and teacher certification.

### **MACROECONOMICS - ADVANCED PLACEMENT (36100)/ACP INTRODUCTION TO MACROECONOMICS - COLLEGE CREDIT**

*2 semesters, 2 credits Grades 11-12*

*Approximate Fee: \$28.33 per semester*

*A Core 40, AHD, THD, and NCAA course*

**PREREQUISITE:** *It is highly recommended that U.S. History, U.S. History AP, or American Studies be taken before taking this course.*

**COURSE DESCRIPTION:** Macroeconomics, Advanced Placement is a course based on the content established by the College Board, and students will be prepared to take the AP exam for college credit. The course places particular emphasis on the study of national income and price-level determinations, and also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth,



and international economics. Topics include: (1) Basic economic concepts, (2) measurement of economic performance, (3) national income and price determination, (4) economic growth, and (5) international finance, exchange rates, and balance of payments. A comprehensive description of this course can be found on the College Board AP Central Course Description web page at: <http://apcentral.collegeboard.com/apc/public/courses/descriptions/index.html>

**COURSE DESCRIPTION:** ACP Introduction to Macroeconomics - College Credit covers measuring and explaining aggregate economic performance, money, monetary policy, and fiscal policy as an analytical core. Individual sections apply this core to a variety of current economic policy problems, such as inflation, unemployment, and economic growth (Prerequisite: ACP Introduction to Microeconomics - College Credit). This course enables students to earn up to three hours of college credit (Indiana University ECON E202 - Introduction to Macroeconomics) at the same time they receive 1 high school credit. In order to earn Indiana University credit, students must pay tuition set by Indiana University and must earn a C or better in the course.

**NOTE:** The availability of Macroeconomics - Advanced Placement and/or ACP Introduction to Macroeconomics - College Credit will be based on student enrollment and teacher certification.

## **SOCIAL STUDIES ELECTIVES**

### **CONTEMPORARY ISSUES - SOCIAL STUDIES (32215)**

*2 semesters, 2 credits Grade 10*

*Approximate Fee:*

*A Core 40, AHD, THD, and NCAA course*

**COURSE DESCRIPTION:** Contemporary Issues combines two social studies electives - Current Issues, Problems, and Events and Topics in Social Science: International Studies - with English 10. It is team-taught by an English teacher and a social studies teacher in a two-mod block. The blending of these courses will allow students to make thematic connections between national and global issues and literature of the world. Students will apply techniques of investigation and inquiry to the study of national issues such as the environment, urban affairs, crime, education, and health. Students will also investigate global issues such as conflict, resource allocation, population, and the environment. Other topics of study will be determined by timely current events and student interest. This course will emphasize the use of the scientific methods of inquiry and will help students to develop effective reading, writing, research, discussion, and critical thinking skills.

See Contemporary Issues - English 10 section for the English component of American Studies. Students taking Contemporary Issues will earn 4 credits (2 for English 10 and 1 each for social studies electives Current Issues and International Studies).

### **EUROPEAN HISTORY - ADVANCED PLACEMENT (37010)**

*2 semesters, 2 credits Grades 10-12*

*Approximate Fee:*

*A Core 40, AHD, THD, and NCAA course*

**COURSE DESCRIPTION:** European History, Advanced Placement is a course based on content established by the College Board, and students will be prepared to take the AP exam for college credit. Topics include: (1) intellectual and cultural history, (2) political and diplomatic history, and (3) social and economic history. In addition to providing a basic narrative of events and movements, the goals of AP European History are to develop (a) an understanding of some of the principal themes in modern European history, (b) an ability to analyze historical evidence and historical interpretation, and (c) an ability to express historical understanding in writing. A comprehensive description of this course can be found on the College Board AP Central Course Description web page at:

<http://apcentral.collegeboard.com/apc/public/courses/descriptions/index.html>

### **PSYCHOLOGY (37004)**

*1 semester, 1 credit Grades 10-12*

*Approximate Fee: \$4.19*

*A Core 40, AHD, THD, and NCAA course*

**COURSE DESCRIPTION:** Psychology is the scientific study of mental processes and behavior. The course is divided into six content areas and uses the scientific methods to explore research methods and ethical consideration. Developmental psychology takes a life span approach to physical, cognitive, language, emotional, social, and moral development. Cognitive aspects of the course focus on learning, memory, information processing, and language. Personality, Assessment, and Mental Health topics include psychological disorders, treatment,

personality, and assessment. Sociocultural dimensions of behavior deal with topics such as conformity, obedience, perceptions, attitudes, and influence of the group on the individual. The Biological Basis focuses on the way the brain and nervous system function, including sensation, perception, motivation, and emotion.

### **ACP PSYCHOLOGY - COLLEGE CREDIT (37020) (DUAL CREDIT)**

*2 semesters, 2 credits Grades 10-12*

*Approximate Fee: \$23.25 per semester*

*A Core 40, AHD, THD, and NCAA course*

**COURSE DESCRIPTION:** ACP Psychology - College Credit enables students to earn up to six hours of college credit at the same time they receive 2 high school elective credits. Psychology provides an opportunity to study individual and social psychology and how the knowledge and methods of psychologists are applied to the solution of human problems. Topics covered include a thorough discussion and application of research methodology and statistical analysis in addition to the traditional topics of social, developmental, cognitive, and clinical psychology. Students will gain insights into behavior patterns and adjustments to social environments. The course will 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. Students will develop effective reading, writing, research, discussion, and thinking skills. In order to earn Indiana University credit, students must pay tuition set by Indiana University and must earn a C or better in the course.

### **PSYCHOLOGY - COLLEGE CREDIT/AP STATISTICS (37050)**

*2 semesters, 2 credits Grades 10-12*

*Approximate Fee:*

*A Core 40, AHD, THD, and NCAA course*

*Psychology - College Credit/AP Statistics enables the student to earn up to 9 hours of college credit at the same time they receive 4 high school credits. This course is combined with AP Statistics.*

**COURSE DESCRIPTION:** As a social science, Psychology utilizes statistics to develop arguments for or against scientific claims about human behavior. This interdisciplinary course is a natural joining of the two topics. Psychology provides an opportunity to study individual and social psychology and how the knowledge and methods of psychologists are applied to the solution of human problems. Topics covered include a thorough discussion of application of research methodology and statistical analysis in addition to the traditional topics of social, development, cognitive and clinical psychology. Students will gain insights into behavior patterns and adjustments to social environments. The course will 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. Students will develop effective reading, writing, research, discussion, and thinking skills. In order to earn Indiana University Credit, students must pay tuition set by Indiana University and must earn a C or better in the course.

### **SOCIOLOGY (37006)**

*1 semester, 1 credit Grades 10-12*

*Approximate Fee: \$4.19*

*A Core 40, AHD, THD, and NCAA course*

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

## **TOPICS IN SOCIAL SCIENCE: WORLD RELIGIONS (37008)**

*1 semester, 1 credit Grades 10-12*

*Approximate Fee:*

*A Core 40, AHD, THD, and NCAA course*

**COURSE DESCRIPTION:** Students will study about the religious aspect of human nature and the role religion plays in culture and world affairs. Students will survey and compare the world major religions including indigenous, Hinduism, Buddhism, Judaism, Christianity, and Islam. Topics include historical development, important individuals, beliefs, symbols, ceremonies, and sacred literature. This course will emphasize the use of scientific methods of inquiry and will help students to develop effective reading, writing, research, discussion, and thinking skills.

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# INTERNET SITES FOR YOU

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## COLUMBUS EAST HIGH SCHOOL

Guidance Department  
<http://www.bcsc.k12.in.us/page/1173>

## HS DIPLOMA TEST REQUIREMENTS

Indiana Department of Education  
[www.doe.state.in.us/istep/welcome.html](http://www.doe.state.in.us/istep/welcome.html)

## SCHOOL-TO-WORK PROGRAMS

Indiana Department of Education  
[www.doe.state.in.us/](http://www.doe.state.in.us/)  
Indiana School-to-Work  
[www.in.gov/dwd/3517.htm](http://www.in.gov/dwd/3517.htm)

## CAREER INFORMATION

America's Job Bank  
[www.jobbankinfo.org](http://www.jobbankinfo.org)  
Bureau of Apprenticeship and Training  
[www.doleta.gov/OA/bat.cfm](http://www.doleta.gov/OA/bat.cfm)  
Career Assessments and Programs  
[www.eduationplanner.com/](http://www.eduationplanner.com/)  
Career Interest Survey  
[www.learnmoreindiana.org/careers](http://www.learnmoreindiana.org/careers)  
Careers in Indiana  
[www.columbusareajobs.com](http://www.columbusareajobs.com)  
Indiana occupational projections  
[www.in.gov/dwd/](http://www.in.gov/dwd/)  
Mapping Your Future: planning a career  
[www.mapping-your-future.org/](http://www.mapping-your-future.org/)  
Monster.com: career advice  
[www.monster.com](http://www.monster.com)  
Occupational Outlook Handbook  
[www.bis.gov/ocol/](http://www.bis.gov/ocol/)  
Self-assessment  
[www.livecareer.com/](http://www.livecareer.com/)  
Quest Career Exploration  
[www.bsu.edu/students/careers/quest](http://www.bsu.edu/students/careers/quest)

## COLLEGE SEARCH ENGINES

All About College  
[www.allaboutcollege.com](http://www.allaboutcollege.com)  
Careers and Colleges  
[www.careersandcolleges.com/](http://www.careersandcolleges.com/)  
Peterson's  
[www.petersons.com](http://www.petersons.com)  
College View  
[www.collegeview.com](http://www.collegeview.com)  
College Planning  
[www.collegeplan.org/](http://www.collegeplan.org/)  
Independent College of Indiana  
[www.indianacollegechoices.org/](http://www.indianacollegechoices.org/)

## GENERAL SITES FOR EDUCATION INFORMATION

College Board\*\*\*\*  
[www.collegeboard.com](http://www.collegeboard.com)  
College Quest: preparing, searching, paying for college  
<http://collegequest.com>  
Dear Admissions Guru  
<http://mycollegeguide.org/Guru.php>  
Learn More Indiana Resource Center  
[www.learnmoreindiana.org](http://www.learnmoreindiana.org)

## GENERAL INFORMATION ABOUT COLLEGE, FINANCIAL AID

[www.ed.gov/thinkcollege](http://www.ed.gov/thinkcollege)  
Links to college home pages  
[www.utexas.edu/world/univ/](http://www.utexas.edu/world/univ/)  
NCAA Guide for the College-bound Student Athletic  
[www.ncaa.org/](http://www.ncaa.org/)  
National Assoc. for College Admissions Counseling  
[www.nacacnet.org](http://www.nacacnet.org)  
Peterson's' Education Center\*\*\*  
[www.petersons.com/](http://www.petersons.com/)  
Princeton Review  
[www.princetonreview.com/home.asp](http://www.princetonreview.com/home.asp)  
US Department of Education  
[www.ed.gov/](http://www.ed.gov/)  
US News College & Career Center  
[www.usnews.com](http://www.usnews.com)  
Virtual Campus Tours  
[www.campustours.com/](http://www.campustours.com/)  
Trip to College  
[www.triptocollege.org](http://www.triptocollege.org)  
College is Possible  
[www.acenet.edu/AM/Template.cfm?Section=CIP1](http://www.acenet.edu/AM/Template.cfm?Section=CIP1)

## INFORMATION FOR MINORITY STUDENTS

ASPIRA: for Latinos  
[www.aspira.org](http://www.aspira.org)

INROADS: organization that places/develops talented  
[www.inroads.org/](http://www.inroads.org/)

## MINORITY STUDENTS IN BUSINESS AND INDUSTRY

Jackie Robinson Foundation Scholarship  
[www.jackierobinson.org/](http://www.jackierobinson.org/)

## NATIONAL ACTION COUNCIL FOR MINORITIES IN

Engineering  
[www.nacme.org](http://www.nacme.org)  
The National Urban League  
[www.nul.org](http://www.nul.org)  
United Negro College Fund  
[www.uncf.org](http://www.uncf.org)  
Top 25 colleges for Hispanic students  
[www.hispaniconline.com/edu&/top25/top-1.html](http://www.hispaniconline.com/edu&/top25/top-1.html)  
Hispanic Association of Colleges & Universities  
[www.hacu.net](http://www.hacu.net)  
Historically Black College & Universities  
[www.smart.net/~pope/hbcu/hbculist.htm](http://www.smart.net/~pope/hbcu/hbculist.htm)

## INFORMATION FOR STUDENTS WITH DISABILITIES

Association on Higher Ed and Disability (AHEAD)  
[www.ahead.org](http://www.ahead.org)  
Attention Deficit Disorder Association [www.add.org](http://www.add.org)  
Children & Adults with Attention Deficit Disorders (CHADD)  
[www.chadd.org](http://www.chadd.org)  
College admissions testing  
[www.act.org](http://www.act.org) and [www.collegeboard.com](http://www.collegeboard.com)  
Council for Learning Disabilities  
[www.cldinternational.org](http://www.cldinternational.org)  
ERIC Clearing House on Disabilities & Gifted Children  
[www.sedoparking.com/ericec.org](http://www.sedoparking.com/ericec.org)  
International Dyslexia Association  
[www.interdys.org](http://www.interdys.org)  
Learning Disabilities Assoc. of America (LDA)  
[www.ldaamerica.org/](http://www.ldaamerica.org/)  
National Business and Disability Council  
[www.business-disability.com](http://www.business-disability.com)

## NATIONAL INFO CENTER FOR CHILDREN

& Youth with Disabilities  
[www.nichcy.org](http://www.nichcy.org)  
Recording for the Blind & Dyslexic  
[www.rfbd.org](http://www.rfbd.org)

## FINANCIAL AID INFORMATION

Comprehensive information and financial aid estimator  
[www.finaid.org/](http://www.finaid.org/)  
Free Application for Federal Student Aid (FAFSA)  
[www.fafsa.ed.gov](http://www.fafsa.ed.gov)  
ACT Financial Aid Need Estimator  
[www.act.org/fane/](http://www.act.org/fane/)  
AmeriCorps (aid for national & community service)  
[www.americorps.org](http://www.americorps.org)  
Armed Forces' educational assistance programs  
[www.defenselink.mil/other\\_info/careers.html](http://www.defenselink.mil/other_info/careers.html)  
Funding Your Education  
[www.studentaid.ed.gov](http://www.studentaid.ed.gov)  
Hope Scholarship & Lifelong Learning tax credits  
[www.irs.ustreas.gov](http://www.irs.ustreas.gov)

## INDIANA AID FOR CHILDREN OF POW/MIAS IN VIETNAM

and Children of Disabled Veterans  
[www.ai.org/veteran/index.html](http://www.ai.org/veteran/index.html)  
Indiana State Student Assistance Commission  
[www.in.gov/ssaci/](http://www.in.gov/ssaci/)  
Sallie Mae's scholarship and loan calculation services  
[www.salliemae.com](http://www.salliemae.com)  
Scholarship Resource Network Express (non-need based aid)  
<http://72.3.140.137/>  
US Dept. of Education  
[www.ed.gov/finaid.html](http://www.ed.gov/finaid.html)  
Veterans Benefits Administration  
[www.va.gov/](http://www.va.gov/)

## NATIONAL SCHOLARSHIP PROGRAMS

Coca-Cola Scholars Program  
[www.coca-colascholars.org](http://www.coca-colascholars.org)  
Elks National Scholarship  
[www.elks.org](http://www.elks.org)  
National Society of Professional Engineers  
[www.nspe.org](http://www.nspe.org)  
Prudential Spirit of Community Award  
[www.nassp.org](http://www.nassp.org)  
The American Legion  
[www.legion.org](http://www.legion.org)

The Heritage Fund Educational Scholarship (County)  
[www.heritagefundbc.com](http://www.heritagefundbc.com)  
Gates Millenium Scholars Fund  
[www.gmsp.org/](http://www.gmsp.org/)  
Free Scholarship Searches  
ExPAN (Fundfinder)  
[www.finaid.org/finaid/expand.html](http://www.finaid.org/finaid/expand.html)  
FastWEB\*\*\*  
[www.finaid.org/finaid/fastweb.html](http://www.finaid.org/finaid/fastweb.html)  
SRN Express  
[www.finaid.org/finaid/sm.html](http://www.finaid.org/finaid/sm.html)

Please note: Websites change frequently. All listed were accurate and fully functional as of October 12, 2007.

# DIRECTORY OF INDIANA COLLEGES AND UNIVERSITIES

Code	Admissions	Phone	Ext	Website
1258	Aviation Tech Center/Vincennes University (Indpls)	317-381-6000		www.vinu.edu
1176	Ball State University (Muncie)	765-285-8300		www.bsu.edu
1206	Indiana State University (Terre Haute)	800-742-0891		www.indstate.edu
1210	Indiana University (Bloomington)	812-855-0661		www.indstate.edu/iub
1216	Indiana University East (Richmond)	765-973-8208		www.iue.indiana.edu
1219	Indiana University (Kokomo)	765-455-9217		www.iuk.edu
1218	Indiana University Northwest (Gary)	219-980-6991		www.iun.edu
1225	Indiana University (South Bend)	574-237-4840		www.iusb.edu
1229	Indiana University Southeast (New Albany)	812-941-2212		www.ius.indiana.edu
1214	Indiana University-Purdue University at Columbus	800-414-8782	x7255	www.columbus.iupui.edu
1217	Indiana University-Purdue University at Ft. Wayne	260-481-6812		www.ipfw.edu
1214	Indiana University-Purdue University at Indianapolis	317-274-4591		www.enroll.iupui.edu
1230	Purdue University (West Lafayette)	765-494-1776		www.purdue.edu
1233	Purdue University-Calumet (Hammond)	219-989-2213		www.calumet.purdue.edu/public/admissions
1231	Purdue University-North Central (Westville)	219-785-5455		www.purdueenc.edu/is/index.html
1207	University of Southern Indiana (Evansville)	800-467-1965		www.usi.edu
1258	Vincennes University (Vincennes)	800-742-9198		www.vinu.edu
1239	Ivy Tech State College (Anderson)	800-644-4882	x306	www.ivytech.edu/anderson
1239	Ivy Tech State College (Bloomington)	812-332-1559		www.ivytech.edu/bloomington
1239	Ivy Tech State College (Columbus)	812-372-9925		www.ivytech.edu/columbus
1239	Ivy Tech State College (East Chicago)	219-392-3600	x211	www.ivytech.edu/eastchicago
1239	Ivy Tech State College (Elkhart)	574-293-4657		www.ivytech.edu/elkhart
1213	Ivy Tech State College (Evansville)	812-429-1435		www.ivytech.edu/evansville
1215	Ivy Tech State College (Ft. Wayne)	260-480-4268		www.ivytech.edu/fortwayne
1281	Ivy Tech State College (Gary)	219-981-4406		www.ivytech.edu/gary
1223	Ivy Tech State College (Indianapolis)	317-921-4800		www.ivytech.edu/indianapolis
1209	Ivy Tech State College (Kokomo)	765-459-0561		www.ivytech.edu/kokomo
1221	Ivy Tech State College (Lafayette)	765-772-9200		www.ivytech.edu/lafayette
1195	Ivy Tech State College (Lawrenceburg)	812-537-4010	x240	www.ivytech.edu/lawrenceburg
1221	Ivy Tech State College (Logansport)	574-753-5101		www.ivytech.edu/logansport
1235	Ivy Tech State College (Madison)	812-265-2580	x4142	www.ivytech.edu/madison
1221	Ivy Tech State College (Marion)	765-662-9843		www.ivytech.edu/marion
1221	Ivy Tech State College (Michigan City)	219-879-9137	x222	www.ivytech.edu/michigancity
1234	Ivy Tech State College (Muncie)	765-289-2291		www.ivytech.edu/muncie
1227	Ivy Tech State College (Richmond)	765-966-2656		www.ivytech.edu/richmond
1227	Ivy Tech State College (Sellersburg)	800-403-2190		www.ivytech.edu/sellersburg
1220	Ivy Tech State College (South Bend)	574-289-7001	x5325	www.ivytech.edu/southbend
1259	Ivy Tech State College (Terre Haute)	812-298-2281		www.ivytech.edu/terrehaute
1259	Ivy Tech State College (Valparaiso)	219-464-8514	x240	www.ivytech.edu/valparaiso
1259	Ivy Tech State College (Wabash)	260-563-8828		www.ivytech.edu/wabash
1259	Ivy Tech State College (Warsaw)	574-267-5428		www.ivytech.edu/warsaw
1175	Ancilla College (Donaldson)	574-936-8898		www.ancilla.edu
1174	Anderson University (Anderson)	800-428-6414		www.anderson.edu
1178	Bethel College (Mishawaka)	800-422-4101		www.bethelcollege.edu
1180	Butler University (Indianapolis)	888-940-8100		www.butler.edu
1245	Calmet College of St. Joseph (Whiting)	219-473-4215		www.ccsj.edu
1184	DePauw University (Greencastle)	800-447-2495		www.depauw.edu
1186	Earlham College (Richmond)	800-327-5426		www.earlham.edu
1190	Fairhaven Baptist College (Chesterton)	219-926-6636		www.fairhavenbaptist.org
1194	Franklin College (Franklin)	800-852-0232		www.franklincollege.edu
1196	Goshen College (Goshen)	574-535-7535		www.goshen.edu
1198	Grace College (Winona Lake)	800-54G-RACE		www.grace.edu
1200	Hanover College (Hanover)	800-213-2178		www.hanover.edu
3327	Heritage Baptist University (Indianapolis)	317-882-2327		www.hbuonline.edu
1203	Holy Cross College (Notre Dame)	574-239-8400		www.hcc-nd.edu
1202	Huntington College (Huntington)	800-642-6493		www.huntington.edu
1199	Hyles-Anderson College (Crown Point)	219-365-4031		NO EMAIL
1208	Indiana Institute of Technology (Ft. Wayne)	800-937-2448	X2251	www.indtech.edu
1226	Indiana Wesleyan University (Marion)	765-677-2138		www.indwes.edu
1222	Manchester College (North Manchester)	800-852-3648		www.manchester.edu
1224	Marian College (Indianapolis)	800-772-7264		www.marian.edu
1187	Oakland City University (Bedford)	812-279-8126		www.ocub.oak.edu
1228	Oakland City University (Oakland City)	812-749-1222		www.oak.edu
1232	Rose-Hulman Institute of Technology (Terre Haute)	812-877-8213		www.rose-hulman.edu
1241	St. Elizabeth School of Nursing (Lafayette)	765-423-6400		www.ste.org/newson
1240	Saint Joseph's College (Rensselaer)	800-447-8781		www.saintjoe.edu
1244	Saint Mary's College (Notre Dame)	800-551-7621		www.saintmarys.edu
1242	St. Mary-of-the-Woods College	800-926-7692		www.smwc.edu
1192	Taylor University-Fort Wayne Campus	800-233-3922		www.tayloru.edu/fw/admissions
1248	Taylor University-Upland Campus	800-882-3456		www.tayloru.edu
1250	Tri-State University (Angola)	800-347-4878		www.tristate.edu
1188	University of Evansville (Evansville)	800-423-8633	X2468	www.evansville.edu
1204	University of Indianapolis (Indianapolis)	800-232-8634		www.uindy.edu
1252	University of Notre Dame (Notre Dame)	574-631-7505		www.nd.edu
1238	University of Saint Francis (Ft. Wayne)	800-729-4732		www.sf.edu
1256	Valparaiso University (Valparaiso)	888-GO-VALPO		www.valpo.edu
1260	Wabash College (Crawfordsville)	800-348-5385		www.wabash.edu

\*\*Successful completion of the State End of Course Assessments in Algebra 1 and English 10 is also required for all diplomas.\*\*

### Core 40 Diploma

**English** 8 credits

**Mathematics** 6 credits

- 2 Algebra I (two credits from middle school may apply)
- 2 Geometry
- 2 Algebra II

All students are required to take a math or quantitative reasoning course each year in high school

**Science** 6 credits

- 2 Biology
- 2 Chemistry or Physics or Integrated Chemistry-Physics
- 2 Any Core 40 science course

**Social Studies** 6 credits

- 2 World History/Civilization or Geography/History of the World
- 2 U. S. History
- 1 Economics
- 1 Government

**Directed Electives** 5 credits

- \* World Languages
- \* Fine Arts
- \* Career Technical

**Physical Ed** 2 credits

**Health** 1 credit

**Electives** 3 credits

**TOTAL** 40 credits

To all Columbus East students and parents:

On the following pages is information regarding the various diplomas at East High School.

Also featured in this area is a four year course planning model that will allow students and parents to plan or sketch out their future high school curriculum. Thoughtful planning will allow for access to various high school, college credit courses and career/community opportunities in the later years of school.

Please note the new Physical Education options. See page 31.

Please feel free to contact the Guidance Office with any questions.

Best wishes in your endeavors.

Douglas Moore  
Guidance Director



**GRADUATION REQUIREMENTS  
STARTING WITH THE CLASS OF 2016**

\*\*Successful completion of the State End of Course Assessments in Algebra 1 and English 10 is also required for all diplomas. \*\*

**Core 40 with Technical Honors Diploma**

**English** 8 credits

**Mathematics** 6 credits

2 Algebra I (two credits from middle school may apply)

2 Geometry

2 Algebra II

All students are required to take a math or quantitative reasoning course each year in high school

**Science** 6 credits

2 Biology

2 Chemistry or Physics or Integrated Chemistry-Physics

2 Any Core 40 science course

**Social Studies** 6 credits

2 World History/Civilization or

Geography/History of the World

2 U. S. History

1 Economics

1 Government

**Directed Electives** 5 credits

\* World Languages

\* Fine Arts

\* Career Technical

**Physical Ed** 2 credits

**Health** 1 credit

**Electives** 13 credits

**TOTAL 47 credits**

**Also complete:**

- All requirements for Core 40.
- Earn 6 credits in the college and career preparation courses in a state-approved College & Career Pathway and one of the following:
  - A. Pathway designated industry-based certification or credential, or
  - B. Pathway dual credits from the lists of priority courses resulting in 6 transcribed college credits.
- "C-" or better in courses that will count toward the diploma.
- Grade point average of "B-" (7.0) or better.
- Complete one of the following:
  - A. Any one of the options (A-F) of the Core 40 with Academic Honors.
  - B. Earn the following scores or higher on WorkKeys; Reading for Information-Level 6, Applied Mathematics-Level 6, and Locating Information-Level 5.
  - C. Earn the following minimum score(s) on Compass; Algebra 66, Writing 70, Reading 80.

F. Earn 4 credits in IB courses and take corresponding IB exams.

**GPA of at least "B-" (7.00)**

**No grade less than "C-" in required courses**

**GRADUATION REQUIREMENTS  
STARTING WITH THE CLASS OF 2016**

\*\*Successful completion of the State End of Course Assessments in Algebra 1 and English 10 is also required for all diplomas.\*\*

**Core 40 with Academic Honors Diploma**

<b>English</b>	8 credits
<b>Mathematics</b>	8 credits
2 Algebra I (two credits from middle school may apply)	
2 Geometry	
2 Algebra II	
2 additional core 40 math credits	
Students must take a math or quantitative reasoning course each year in high school	
<b>Science</b>	6 credits
2 Biology	
2 Chemistry or Physics or Integrated Chemistry-Physics	
2 Any Core 40 science course	
<b>Social Studies</b>	6 credits
2 World History/Civilization or Geography/History of the World	
2 U. S. History	
1 Economics	
1 Government	
<b>World Language</b>	6 or 8 credits
6 credits in one language OR	
4 credits in two different languages (8 <sup>th</sup> grade applies)	
<b>Fine Arts</b>	2 credits
<b>Directed Electives</b>	5 credits
* World Languages	
* Fine Arts	
* Career Technical	
<b>Physical Ed</b>	2 credits
<b>Health</b>	1 credit
<b>Electives</b>	9 credits
<b>TOTAL</b>	<b>47 credits</b>

**Also complete one of the following:**

- A. Earn 4 credits in 2 or more AP courses and take corresponding AP exams
- B. Earn 6 verifiable transcripted college credits in dual credit courses from the priority course list
- C. Earn two of the following:
  - 1. A minimum of 3 verifiable transcripted college credits from the priority course list,
  - 2. 2 credits in AP courses and corresponding AP exams,
  - 3. 2 credits in IB standard level courses and corresponding IB exams.
- D. Earn a combined score of 1750 or higher on the SAT critical reading, mathematics and writing sections and a minimum score of 530 on each
- E. Earn an ACT composite score of 26 or higher and complete written section

**Physical Education Waiver Procedures**  
**Bartholomew Consolidated School Corporation**  
**PE Waiver Program Procedures**

1. The student obtains the PE Waiver Information Packet from the PE/Health Department. The student should indicate to their counselor at the time of scheduling that they intend to participate in the waiver program.
2. The student and parent read all the information provided in the packet and fill out the PE Waiver Application form.
3. The student/parent provides the instructor/coach from the waiver activity with the waiver application and the “Activity Schedule and Instructor Agreement” for completion and signature. Category 1, 2 and 3 students do not need the schedule to be completed and only need the coach/director signature so that the coach/director is aware that the student is doing the activity for credit. Category 4 students must have the entire “Activity Schedule and Instructor Agreement” completed.
4. The student/parent submits the application form and activity/instructor form to the PE/Health Department of the high school prior to the end of the first full week of the semester of which credit is sought. The waiver is valid for the semester of submission only and additional waivers must be submitted for each additional semester in which credit is sought.
5. After checking the application thoroughly, the PE instructor may sign the form. The PE/Health Department Coordinator must then sign off on the application as well for approval of the waiver. **The high school principal is the final authority on approving or denying waivers for credit.**
6. The PE waiver will be kept and monitored by a PE instructor. The PE/Health Department will notify the guidance office of all students taking the waiver program for that semester. If there are any concerns, the PE instructor will contact the student and/or the parent by phone or in writing.
7. The PE instructor will monitor the waiver activities and the required PE assessment activities during the semester to insure that the student is meeting the requirements and standards outlined in the program.
8. Performance activities and absences will be reported to the monitoring PE instructor by the waiver activity sponsor one week prior to the end of each current nine week grading period. No grade will be recorded. **Credit will be determined on a pass/fail basis and will not count in the student’s GPA.**
9. Any changes in the PE Waiver or the activity schedule must be approved by the PE instructor. Changes would include any injuries that may prevent the student from completing required activities.