

SPEEDWAY HIGH SCHOOL
CURRICULUM GUIDE
2017-18



“It is the vision of Speedway High School to prepare students for college and workforce readiness in the 21st Century.”

TABLE OF CONTENTS

General School Profile/Scheduling Policies and Procedures.....	pg. 3-6
Core 40 Diploma Requirements.....	pg. 7
Core 40 w/Academic Honors Diploma & Technical Honors Diploma Requirements.....	pg. 8
Promotion, Post-Secondary Prep, & High School Transcript Information.....	pg. 9
Pre-Advanced Placement (Pre-AP) Courses.....	pg. 10
Advanced Placement (AP) Courses.....	pg. 11
Dual Credit (DC) Courses.....	pg. 12-13
Advanced Placement (AP) Course Descriptions.....	pg. 14-17
Art Department.....	pg. 18-19
Business Department.....	pg. 20-21
Engineering and Technology Department.....	pg. 22-24
English Department.....	pg. 25-27
Health and Physical Education Department.....	pg. 28-29
Mathematics Department.....	pg. 30-33
Music Department.....	pg. 34-35
Science Department.....	pg. 36-38
Social Studies Department.....	pg. 39-42
World Languages Department.....	pg. 43-45

Speedway High School

5357 W. 25th St.
Speedway, IN 46224

Phone: (317) 244-7238
Fax: (317) 486-4838
www.speedwayschools.org

Administration

Kyle Trebley, Principal
Lucas Zartman, Asst. Principal
Trenton S. Borom, Director of Student Services

Student Services

Misty Davenport, Counselor
Chuck Bennett, Counselor
Linda Baker, Registrar/Guidance Secretary

CEEB: 153-295 (school code for national testing)

COMMUNITY

Speedway is a suburban community that is adjacent to the city of Indianapolis. The town is 4.8 square miles in size, and its population is approximately 12,735. The community is composed of mostly business, working, and professional residents. Several major businesses are located in Speedway including the Indianapolis Motor Speedway (IMS), Dallara and Indy Racing Experience, Allison Transmission, Praxair, and Coca-Cola.

SPEEDWAY HIGH SCHOOL

Speedway High School is a four-year comprehensive high school with an enrollment of approximately 530 students in grades nine through twelve. SHS is accredited by the State of Indiana.

CURRICULUM

Students choose courses that are available on a traditional schedule comprised of two eighteen-week semesters. Advanced Placement courses are available in all academic subject areas. Spanish III and IV offer students the opportunity to earn transferable dual credits. Career programs are available through the Area 31 Career Center. Special Education programs are offered for students with special academic needs. A Language Assistance Program is available for English Language Learners.

INTERPRETING THE ACADEMIC RECORD

Speedway High School maintains a three-tiered grade weighting system. Please review the chart below for the grade weighting scale followed by a list of all weighted courses and their weight value. Not all courses carry the same weight. Students must earn a C- or higher in the course to receive a grade weight. All AP Students must take the AP exam and all Dual Credit Students must take the required placement test. See course description for additional course requirements.

<u>GRADE</u>	<u>SCALE</u>	<u>REGULAR COURSE</u>	<u>PRE-AP COURSES</u>	<u>AP/DUAL CR. COURSES</u>
A	95-100	4.0	4.5	5.0
A-	90-94	3.7	4.2	4.7
B+	87-89	3.3	3.8	4.3
B	83-86	3.0	3.5	4.0
B-	80-82	2.7	3.2	3.7
C+	77-79	2.3	2.8	3.3
C	73-76	2.0	2.5	3.0
C-	70-72	1.7	2.2	2.7
D+	69	1.3	1.3	1.3
D	65-68	1.0	1.0	1.0
F	0-64	0.0	0.0	0.0

RANK IN CLASS

Semester grades in all courses are used in determining rank in class. All members of the class that are earning a diploma are included in the rank list. In determining rank, the above values are given for each semester grade earned. The cumulative GPA is used to determine class ranking. Updates to class rank occur at the end of each semester as the semester grade is that which is factored into the GPA. The cumulative GPA includes all courses and credits attempted in grades 9 through 12. It may also include high school courses (PE-I; Algebra I; and Spanish I) and credits that were earned while in middle school. The senior(s) with the highest class rank will be designated as the graduating Valedictorian. The senior(s) with the second highest class rank will be designated as Salutatorian. The Valedictorian and Salutatorian are determined at the end of the 7th high school semester.

GRADING PROCEDURE

Quarter grades are calculated every nine weeks to make up an 18-week semester for Semester 1 and an 18-week semester for Semester 2. Credits are earned at the end of each semester. Final semester grades are calculated using the following formula: Quarter 1 percentage grade = 40%; Quarter 2 percentage grade = 40%; and Final Exam = 20%.

ACADEMIC RIGOR

Honor programs provide talented and highly motivated students with the opportunity to study a particular subject area in greater depth.

Advanced Placement Courses (AP): Courses follow the guidelines of the College Board Advanced Placement Program and have been approved through the audit process. AP courses available to students at Speedway High School include: H Art History AP, H Biology AP, H Chemistry AP, H Environmental Science AP, H Physics I AP, H Physics II AP, H Calculus AB AP, H Statistics AP, H English Language and Composition AP, H English Literature and Composition AP, H World History AP, H US History AP, H US Government and Politics AP, H Microeconomics AP, H Macroeconomics AP, and H Spanish Language AP. All AP courses have an additional 1 point weighted honor value per semester. To receive the weighted honor point for an AP course, students must earn a semester grade of C- or higher and take the Advanced Placement exam in May.

Dual Credit Courses: Courses are taught at SHS by adjunct faculty members. The curriculum is identical to that taught on campus. For the 2017-2018 school year, the following dual credit courses are available to SHS students: H Spanish III & IV, *Intro to Engineering and Design (PLTW), *Principles of Engineering (PLTW), *Advanced Manufacturing I and *Advanced Manufacturing II. (*Please note that these courses do not receive honor value and the dual credit can only be applied to Ivy Tech Community College.) Honor dual credit courses (H Spanish III and H Spanish IV) have an additional 1 point weighted honor value per semester. To receive the weighted honor point for an honors dual credit course, students must earn a C- or higher. Students enrolled in honor dual credit classes must also take the required placement test.

Pre-AP Courses: Pre-AP courses are more rigorous than other college preparatory courses and specifically prepare students for success in AP courses. Pre-AP courses are available in English 9, English 10, Geometry, Algebra II, and Biology. All Pre-AP courses have an additional .5 weighted honor value per semester. To receive the weighted honor point for a Pre-AP course, students must earn a semester grade of C- or higher.

SCHEDULING AND COURSE INFORMATION FOR STUDENTS, PARENTS AND TEACHERS

This handbook will assist students, parents, teachers and counselors in planning the academic program of all students at SHS. Included are diploma types and requirements, curriculum and credit information, course descriptions and other pertinent information. Included in the course descriptions are course content, grade level(s), prerequisites, length of class (if one semester) and number of credits awarded for successful completion of the course. Course descriptions are listed in alphabetical order by department.

**SCHEDULE CHANGE PROCEDURES (DROP AND/OR ADD COURSES)

Once the semester begins, schedule changes are discouraged and such requests will be given close scrutiny. If a student wishes to request a schedule change that involves adding or dropping a course, he/she must complete a Schedule Change Request form within the first **FIVE** days of a semester for the request to be reviewed. All schedule changes are subject to space availability and impact to other courses, and must be approved by the Director of Student Services. There will be no schedule changes to accommodate a teacher preference or lunch preference. Drops after the first FIVE days of a semester will result in a WF (Withdraw from class-Failing) if the change is not based on the reasons listed below.

Schedule changes will be made for the following reasons only:

- Incomplete schedule
- Academic Support Course (i.e. Algebra Lab; Basic Skills Development)
- Data input error
- Senior FLEX schedule or Area 31 Program
- Change in the master schedule
- Course needed for diploma requirement and/or graduation
- Assistant Assignment (Teacher Assistant or Office Assistant)
- Class size imbalances
- Student does not meet the prerequisite for the class
- Inappropriate academic placement (Per teacher advisement)
- ECA or ISTEP 10 Remediation
- Replacement of summer school course(s) successfully completed

Students are encouraged to take the most rigorous and challenging schedule possible. Students enrolled in **Pre-AP, Honor Dual Credit, and Advanced Placement classes will have a 4 ½ week grace period to withdraw from that course (without a WF) if struggling academically. However that student must have met with the teacher, participated in all available help sessions and/or study tables, submitted all assignments, and completed all quizzes and exams prior to removal from the course. If removed, the student will be placed in the appropriate course, i.e., Pre-AP English 10 to English 10. Students who fail a Pre-AP or AP course at the end of the **first semester** will be removed and placed in the appropriate corresponding course second semester.

FLEX SCHEDULE FOR SENIORS

Speedway High School has a program for senior students who are employed or pursuing post-secondary courses at an on-campus university. In accordance with Indiana Code (IC 20-30-2-2.2) senior students are eligible for “Senior Flex” status. SHS students must provide proof of employment or enrollment at a university, and must also be in good academic and disciplinary standing. Pending approval from an administrator, eligible students can “flex” and take courses at SHS on a part-time basis and be released for employment or post-secondary purposes. To remain eligible for FLEX, students must continue to be in good standing both academically and behaviorally, and must provide proof of employment or enrollment at a university each semester. NOTE: To participate in IHSAA sports, a student on FLEX must remain in and pass **at least 5 classes**.

RETAKE POLICY

A student must demonstrate proficiency in each course required for graduation. Students may repeat a course where they have received a “D+,” “D,” or “F” in order to earn a better grade and remain eligible for a specific diploma, i.e., Technical Honors or Academic Honors. Beginning in the **2017-18** school year, the following rules will apply:

1. When repeating a course either failed “F” or already passed with a “D+” or “D,” the second, repeating grade will be replace the first grade on the transcript. The first grade will appear as an “R” (Repeat) for no credit, and will not factor into the GPA.
2. When repeating a course, a student may go from an “honors” level course to a regular level (provided academic standards are the same for the two courses). For example, a student who earns a D+ in H Pre-AP English 10 may opt to take English 10 for a higher grade.

HIGH SCHOOL COURSES TAKEN DURING JUNIOR HIGH SCHOOL

Algebra I, Spanish I, and PE I (1 sem) are high school courses offered at Speedway Junior High School. If any of these courses are used towards graduation, as well as to complete diploma requirements, the semester grade earned during junior high school will appear on the official high school transcript and will be calculated in the cumulative high school GPA. If a freshman student repeats the high school level course upon entering 9th grade, the grade/course from the junior high school will not be reflected on the official transcript or calculated in the cumulative high school GPA.

COURSE RECOMMENDATIONS

At Speedway High School, student course placement is based upon a variety of factors including student performance in preceding classes, standardized test scores, potential, and teacher recommendation. Teacher recommendation is a required prerequisite for many courses. Recommendations by teachers are greatly valued, as they have personal knowledge of their students and of the curriculum in their departments. Procedures have been developed to address disagreements between families and staff regarding course recommendations. When scheduling, counselors will initially follow the recommendation of the teacher. However, students may submit a “Course Recommendation Override Form” to their counselor for review. In most cases, a meeting will be coordinated with the student and parent, counselor, the department head of the academic course in question, and the Director of Student Services to determine final placement. A student who enrolls in a course that is contrary to the final staff recommendation may not withdraw from the course at a later date without receiving a WF on the academic transcript.

TRANSFER STUDENTS-CREDITS

Speedway High School will evaluate and accept credits of students transferring based on the following policy:

1. If the transferring student attended a school in Indiana or another state, approved/accredited by that state’s department of education, coursework will be accepted at face value if those courses are approved curriculum offerings.
2. Transferring students may be given individual achievement tests or end-of-course examinations in core subjects as an aid in placement.
3. Only honor transfer courses that are also offered at SHS will be weighted and considered in class ranking..

ONLINE HIGH SCHOOL COURSE CREDIT AS AN EXTENSION OF THE SHS CURRICULUM

High school course work to be completed through correspondence or Virtual Education must have the approval of the Director of Student Services *prior* to enrolling in the course for the credit to be included on the SHS transcript. A student desiring to earn high school credit through online coursework should give this choice careful thought and discuss this option with their high school counselor. Prior approval is required for the acceptance of online credit toward graduation requirements. Online courses that are requested to replace courses that are teacher-led at Speedway High School will not be approved unless an academic necessity is warranted. In these instances, students will be required to complete a 4-year academic course plan documenting the need for online course flexibility. Cost of online courses is the responsibility of the family. Only courses that are offered by accredited institutions and approved by the State of Indiana will be approved. Online courses will be calculated in the cumulative GPA and only given weighted value if the corresponding course is also offered at SHS.

EDUCATIONAL RECORDS – TRANSCRIPTS AND REPORT CARDS

Speedway High School has transitioned to electronic submission of transcripts. Students who need transcripts sent to colleges and universities make their requests through Parchment. (Alumni should also make their requests via Parchment.com. However, electronic copies are only available for students who attended SHS 2009 or after.) The registrar will then confirm the request and forward the transcript electronically. This transcript will serve as an official transcript when this process is followed. PowerSchool usernames and passwords are provided through our main office. Progress Reports are distributed every 4 ½ weeks and report cards are mailed after each 9-week grading period. Parents and students are encouraged to use PowerSchool to routinely check grades. If you need your PowerSchool username or password, please contact the main office.

ENROLLMENT REQUIREMENTS

All SHS students must enroll in four core classes each semester--English, math, science, social studies. (Freshmen must also enroll in 1 semester of PE and 1 semester of Health at SHS, even if a 1 semester PE credit was earned at the junior high school.) The only exception to these enrollment requirements are for students attending Area 31 to accommodate their career program or approval for senior FLEX schedule and are still at the discretion of Administration.

SPEEDWAY HIGH SCHOOL DIPLOMA REQUIREMENTS

Core 40 Diploma

English	8 Credits	
	Journalism and Student Publications credits do not apply toward the 8 required credits in English.	
Mathematics	6 Credits	
	2 credits: Algebra I 2 credits: Geometry 2 credits: Algebra II <i>Note: Students must take a math or quantitative reasoning course each year in high school.</i>	
Science	6 Credits	
	2 credits: Biology I 2 credits: Chemistry I, Physics I or ICP 2 credits: Any Core 40 science course	
Social Studies	6 Credits	
	2 credits: Geography & History of the World 2 credits: US History 1 credit: Economics 1 credit: US Government	
Physical Education	2 Credits	
	2 credits: Physical Education I – II <i>Note: Credit in Elective Physical Education does not replace credit in a full-year of Physical Education I – II.</i>	
Health and Wellness	1 Credit	
Directed Electives: Five (5) directed electives are required for the Core 40. Directed electives can be any combination of electives from the following: World Languages; Fine Arts; Career/Technical (see Corresponding SHS Departments)	5 Credits	
	<u>Indiana Directed Electives</u> <u>Departments</u> World Languages Fine Arts Career/Technical	<u>Corresponding SHS</u> Spanish Art or Music Business; Engineering & Tech; or Area 31
Additional Electives	14 Credits	

★ 48 TOTAL CREDITS ARE REQUIRED FOR THE CORE 40 DIPLOMA

Core 40 Diploma + ACADEMIC HONORS DIPLOMA (AHD)

For the **Core 40 Diploma with Academic Honors**, students at Speedway High School must:

- Complete all SHS Core 40 Diploma requirements
- Earn 2 additional Core 40 math credits
- Earn 6–8 Core 40 World Language credits
- Earn 2 Core 40 fine arts credits
- Earn a semester grade of “C-” or above in courses that will count toward the diploma
- Have a grade point average of “3.0” or above
- Complete **one** of the following:
 - A. Earn 4 credits in 2 or more AP courses and take corresponding AP exams
 - B. Earn 6 verifiable transcribed college credits in dual credit courses from priority course list
 - C. Earn two of the following:
 1. A minimum of 3 verifiable transcribed college credits from the priority course list,
 2. 2 credits in AP courses and corresponding AP 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

★ **48 TOTAL CREDITS ARE REQUIRED FOR THE AHD DIPLOMA**

Core 40 Diploma + TECHNICAL HONORS DIPLOMA (THD)

For the **Core 40 Diploma with Technical Honors**, students at Speedway High School must:

- Complete all SHS Core 40 Diploma requirements
- Earn a grade of “C-” or above in courses that will count toward the diploma
- Have an overall grade point average of “3.0” or above
- Earn 6 credits in the college and career preparation courses in a state-approved College & Career Pathway and one of the following:
 1. Pathway designated industry-based certification or credential, or
 2. Pathway dual credits from the lists of priority courses resulting in 6 transcribed college credits
- Complete **one** of the following:
 - A. Any one of the options (A-E) 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 Accuplacer: Writing 80, Reading 90, Math 75
 - D. Earn the following minimum score(s) on Compass: Algebra 66, Writing 70, Reading 80

★ **48 TOTAL CREDITS ARE REQUIRED FOR THE THD DIPLOMA**

PROMOTION

Students' progress toward graduation will be reviewed on a yearly basis. At the end of the junior year, the record of any student who has earned less than thirty-four (34) credits AND who has not successfully mastered proficiencies in core courses will be reviewed to determine whether the student is eligible for senior standing and enrollment in senior level coursework.

POST SECONDARY PREPARATION

Regardless of their post-secondary plans, students are encouraged to enroll in the most challenging program of studies in which they have a reasonable chance for success. Students who graduate from high school with a sound academic background will find they are better prepared for a variety of post-secondary opportunities.

During the freshman and sophomore years of high school, it is essential for students to plan an appropriate schedule that is inclusive of college preparatory courses. Thorough grounding in the five college preparatory areas of English, mathematics, science, social studies, and world languages enables the student to pursue advanced studies during the junior and senior years of high school and develop advanced skills in the academic areas.

It is important for students to remain in a rigorous academic program through the senior year. Colleges express concern about admitting the student who elects to enroll in a "lighter" curriculum during their senior year. More significantly, students who complete only the minimum requirements for admission to college may find themselves enrolled in and paying for basic or remedial courses during the first semester of college or denied admission at a four-year school.

Students who remain diligent throughout high school are best prepared for success in college level coursework and may even qualify for advanced placement in college level courses.

HIGH SCHOOL TRANSCRIPT

The Speedway High School transcript is a legal record of *high school level* coursework completed at Speedway High School.

College Credit Earned: College credits earned during high school are not recorded on the high school transcript. Any dual/college credits earned during high school are transcribed on the *college* transcript which is housed at the college or university from which the credits were earned. Students who earn college dual credit will need to request a transcript directly from the institution in which they earned the credit (Ivy Tech). This request should be submitted upon graduating from SHS and the college transcript should be sent to the post-secondary institution that student plans to attend.

Pre-College Board Advanced Placement (Pre-AP) College Board Advanced Placement (AP) and Dual Credit Programs

Preparing for Rigor and Earning College Credits

Pre-AP

Pre-AP courses are vertically articulated with AP courses to provide a curriculum framework that builds the skills and knowledge needed to prepare students for success in future AP courses and college. Continuing development of higher-order thinking skills, as well as content knowledge, is emphasized.

- Pre-AP courses increase the level of rigor and accelerate learning.
- Students can enroll in AP courses without completing the Pre-AP curriculum. *However, Pre-AP courses are designed to maximize students' potential for success in AP courses.*

Pre-AP Courses & Corresponding AP Courses for 2017-18

Department	Course Title	Grade Level	Corresponding AP Course Titles & Grade Levels
Math	H Pre-AP Geometry	9	H Statistics AP (11-12) H Calculus AB AP (12)
Math	H Pre-AP Algebra II	10	
English	H Pre-AP English 9	9	H English Language/Composition AP (11) H English Literature/Composition AP (12)
English	H Pre-AP English 10	10	H English Language/Composition AP (11) H English Literature/Composition AP (12)



COLLEGE BOARD ADVANCED PLACEMENT (AP) COURSES

Courses with the *AP* designation are the most rigorous courses at Speedway High School. Students enrolled in a course with this designation are required to take the corresponding exam in May. AP courses also have a weighted honor point value of 1 additional point per semester. To receive the additional honor value, students must earn a grade of at least a C- each semester and must take the corresponding AP exam.

AP courses cover *college level material* at an even *faster pace than dual credit* courses. They require that a student is not just “familiar” with information; instead, the student must be able to *use that information to solve new problems under timed conditions*.

In AP classrooms, the focus is not on memorizing facts and figures. Instead students engage in intense discussions, solve problems collaboratively, and continue developing skills that enable them to write clearly and persuasively. AP courses cover *more* material in *less* time. Therefore, students should expect to regularly have assignments and/or reading to be completed outside of class time. Strong writing skills, problem-solving ability, and effective skills in time management and study habits are all necessary for success in AP courses.

Whereas dual credit courses allow the student to “earn” college credit based on daily performance and assignments, college credit for an AP course is awarded on the basis of an exam given in May. The amount of college credit awarded varies from college to college, but specific information can be found on each school’s website by searching for “Advanced Placement.” Information about the credit awarded by each college can also be found on The College Board’s website located at <http://collegesearch.collegeboard.com/apcreditpolicy/index.jsp>.

SHS Advanced Placement (AP) Courses for 2017-18

Department	AP Course and Exam Title	Grade Level(s)
Art	AP Art History	11-12
English	AP English Literature/Composition	12
	AP English Language and Composition	11
Mathematics	AP Calculus AB	12
	AP Statistics	11-12
Science	AP Biology	10 - 12
	AP Environmental Science	11-12
	AP Chemistry	11-12
	AP Physics I & II	11-12
Social Studies	AP World History	9
	AP US History	10
	AP Microeconomics	12
	AP Macroeconomics	12
	AP US Government and Politics	12
World Languages	AP Spanish Language	12

Availability of each AP course varies from year to year based on the number of student requests.

DUAL CREDIT IVY TECH COMMUNITY COLLEGE

Dual Credit Courses allow the student to earn college credit through placement testing and daily performance and assignments. H Spanish III and H Spanish IV designated with an “H” for Honors and are considered “Honor” dual credit courses and have an honor weighted point value of 1 additional point. Like AP courses, to receive the additional honor value, students must earn a semester grade of at least a C-.

IVY TECH COMMUNITY COLLEGE: H Spanish III & IV

Speedway High School Course Title	Ivy Tech Community College Course Title	College Credits Awarded
H Spanish III/SPAN 101 Ivy Tech	SPAN 101 (1 st semester)	3
H Spanish III/SPAN 102 Ivy Tech	SPAN 102 (2 nd semester)	3
H Spanish IV/SPAN 201 Ivy Tech	SPAN 201 (1 st semester)	3
H Spanish IV/SPAN 203 Ivy Tech	SPAN 202 (2 nd semester)	3

Ivy Tech dual credit program offers students an opportunity to earn high school credit from Speedway High School and college credit from Ivy Tech Community College *simultaneously* in a single course. High school faculty who teach dual credit courses must meet national certification standards, and Ivy Tech designates them as “Adjunct Professors.” For H Spanish III and H Spanish IV, students must complete placement testing and earn scores required for each academic area to determine if they are eligible to enroll for college credit. The chart below outlines the testing and prerequisite requirements for Spanish dual credit courses offered at Speedway High School. Where testing requirements are required in reading and writing, only one qualifying test score is needed in each category. All students enrolled in the dual credit course are expected to take the placement assessment to determine dual credit eligibility. There is no cost to enroll in dual credit courses. Please review course descriptions for additional information. To qualify for dual credit, students must meet ONE of the following criteria for each subject area (Writing and Reading) below:

H Spanish III (Spanish 101/102): Writing: ACT-English 17; PSAT 26; SAT 27; or ACCUPLACER 80

Reading: ACT-Reading 18; PSAT 25; SAT 25; or ACCUPLACER 76

H Spanish IV (Spanish 201/202): Writing: ACT-English 17; PSAT 26; SAT 27; or ACCUPLACER 80

Reading: ACT-Reading 18; PSAT 25; SAT 25; or ACCUPLACER 76

NOTE: Taking the placement test is required. Students who do not meet the placement testing standards required by Ivy Tech may still enroll in the course for high school credit only. However, course content and requirements cannot be modified for students who do not enroll with Ivy Tech for the college credit. Also students must earn a semester grade of C- or higher in the course to receive the weighted honor point.

IVY TECH COMMUNITY COLLEGE: Engineering and Technology

Students have the option to earn dual credits and/or certificates through the SHS Engineering and Technology Department.

Speedway High School Course Title	Ivy Tech Community College Course Title	College Credits Awarded	Certificates Awarded
*Advanced Manufacturing I	MPRO 100: Plant Floor	3	Logistics Operations Certified Logistics Associate
	MPRO 106: Safety	3	
*Advanced Manufacturing II	MPRO 102: Print Reading	3	N/A
	MPRO 122: Mechatronics Electrical Systems	3	
	MPRO 201: Lean Manufacturing	3	
**Intro to Engr Design (PLTW)	DESN 101: Intro to Design Tech	3	N/A
**Principles of Engineering (PLTW)	DESN 104: Mechanical Graphics	3	N/A
**Civil Engineering and Architecture (PLTW)	Architectural Design I	3	N/A

NOTE: Dual Credit courses through the Engineering and Technology Department do NOT require a placement test and do NOT have an honor point weighted value.

***Dual credits for Intro to Adv Manufacturing and Advanced Manufacturing I & II are only applicable to Ivy Tech.**

****Dual credits for PLTW courses are only applicable to Ivy Tech or Purdue University's College of Technology upon admission.**

HONORS (H) ADVANCED PLACEMENT (AP)

These courses are year-long, college-level courses. Students enrolled these courses are required to complete the corresponding College Board Advanced Placement exam during AP testing in May.

H ART HISTORY AP–AHD

Grade Level 11-12

H Art History AP is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The AP Art History course is equivalent to a two-semester introductory college course that explores topics such as the nature of art, art making, and responses to art. By investigating a specific image set of 250 works of art characterized by diverse artistic traditions from prehistory to the present, the course fosters in-depth, holistic understanding of the history of art from a global perspective. Students become active participants in the global art world, engaging with its forms and content, as they experience, research, discuss, read, and write about art, artists, art making, and responses to and interpretations of art.

H ENGLISH LANGUAGE/COMPOSITION AP–AHD

Grade Level 11

H English Language and Composition AP is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The course focuses on the development and revision of evidence-based analytic and argumentative writing and the rhetorical analysis of nonfiction texts. The course aligns to an introductory college-level rhetoric and writing curriculum, which requires students to develop evidence-based analytic and argumentative essays that proceed through several stages or drafts. Students evaluate, synthesize, and cite research to support their arguments. Throughout the course, students develop a personal style by making appropriate grammatical choices. Additionally, students read and analyze the rhetorical elements and their effects in non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods. There is no prescribed sequence of study.

H ENGLISH LITERATURE/COMPOSITION AP–AHD

Grade Level 12

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

H CALCULUS AB AP–AHD

Grade Level 12

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

H STATISTICS AP–AHD

Grade Level 11-12

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

H BIOLOGY AP–AHD

Grade Level 10-12

H Biology AP is a course based on the content established and copyrighted by the College Board. In taking *H Biology AP*, students will be in a course equivalent to a college-level science course. Course material includes biochemistry, cell biology, molecular genetics, botany, genetics, physiology, animal behavior, and much more. The AP course will have a substantial laboratory component. AP biology labs will help students in understanding biological problems, develop hypotheses, and design and implement controlled experiments. Students will also be able to identify independent and dependent variables, analyze data, draw conclusions, think analytically, and communicate results using data tables and graphs. **Prerequisite: Biology I**

H CHEMISTRY AP–AHD

Grade Level 11-12

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

H ENVIRONMENTAL SCIENCE AP-AHD

Grade 11-12

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

H PHYSICS I AP–AHD

Grade Level 11-12

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

H PHYSICS II AP–AHD

Grade Level 11-12

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

H WORLD HISTORY AP–AHD

Grade Level 9

H World History AP is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. AP World History focuses on developing students' abilities to think conceptually about world history from approximately 8000 BCE to the present and apply historical thinking skills as they learn about the past. Five themes of equal importance — focusing on the environment, cultures, state-building, economic systems, and social structures — provide areas of historical inquiry for investigation throughout the course. AP World History encompasses the history of the five major geographical regions of the globe: Africa, the Americas, Asia, Europe, and Oceania, with special focus on historical developments and processes that cross multiple regions.

All freshmen are required to enroll in either Geography and History or the World or H World History AP. Please note that the H World History AP course is equivalent to the rigor of an introductory college level social studies class. Consequently, the amount of time needed outside of class to complete assignments and master the course content will be significantly more than the non-H World History AP course. To ensure the best possible chance for academic success, students seeking enrollment in H World History AP should be reading at or above grade level.

H UNITED STATES HISTORY AP–AHD

Grade Level 10

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

H UNITED STATES GOVERNMENT AND POLITICS AP–AHD

Grade Level 12

H United States Government and Politics AP is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. AP United States Government and Politics introduces students to key political ideas, institutions, policies, interactions, roles, and behaviors that characterize the political culture of the United States. The course examines politically significant concepts and themes, through which students learn to apply disciplinary reasoning assess causes and consequences of political events, and interpret data to develop evidence-based arguments. Topics include: (1) constitutional underpinnings, (2) political beliefs and behaviors, (3) political parties, interest groups, and mass media, (4) institutions of national government, (5) public policy, and (6) civil rights and civil liberties.

H MICROECONOMICS AP-AHD

Grade Level 12

H Microeconomics AP is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. AP Microeconomics is an introductory college-level course that focuses on the principles of economics that apply to the functions of individual economic decision-makers. The course also develops students' familiarity with the operation of product and factor markets, distributions of income, market failure, and the role of government in promoting greater efficiency and equity in the economy. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts. Topics include: Basic Economic Concepts; The Nature and Functions of Product Markets; Factor Markets; and Market Failure and the Role of Government.

H MACROECONOMICS AP–AHD

Grade Level 12

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

H SPANISH LANGUAGE AP–AHD

Grade Level 12

H Spanish Language AP is a course established and copyrighted by the College Board and follows the College Board course guidelines for AP Spanish Language and Culture. The course prepares students to be successful on the AP Spanish Language and Culture exam. The course is not intended to be used as a dual credit course.

The H Spanish Language AP course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The H Spanish Language AP course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish.

The H Spanish Language AP course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

ART

DRAWING—AHD (one semester course)

Grades 9-12

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

PAINTING—AHD (one semester course)

Grades 9-12

Painting is a course based on the Indiana Academic Standards for Visual Art. Students taking painting engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production that lead to the creation of portfolio quality works. Students create abstract and realistic paintings, using a variety of materials such as mixed media, watercolor, oil, and acrylics as well as techniques such as stippling, gouache, wash, and impasto. They reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art-related careers.

CERAMICS—AHD

Grade Level 10-12

Ceramics is a course based on the Indiana Academic Standards for Visual Art. Students in ceramics engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works. Students create works of art in clay utilizing the processes of hand building, molds, wheel throwing, slip and glaze techniques, and the firing processes. They reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art-related careers.

DIGITAL DESIGN—AHD

Grade Level 9-12

Digital Design is a course based on the Indiana Academic Standards for Visual Art. Students in digital design engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works. They incorporate desktop publishing, multimedia, digitized imagery, computer animation, and web design. Students reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art-related careers.

H ART HISTORY AP–AHD

Grade Level 11-12

H Art History AP is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The AP Art History course is equivalent to a two-semester introductory college course that explores topics such as the nature of art, art making, and responses to art. By investigating a specific image set of 250 works of art characterized by diverse artistic traditions from prehistory to the present, the course fosters in-depth, holistic understanding of the history of art from a global perspective. Students become active participants in the global art world, engaging with its forms and content, as they experience, research, discuss, read, and write about art, artists, art making, and responses to and interpretations of art.

BUSINESS

PREPARING FOR COLLEGE AND CAREERS (*one semester course paired with Pers Fin Responsibility*)

Grade Level 9-12

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

PERSONAL FINANCIAL RESPONSIBILITY (*one semester course paired w/Prep for College & Careers*)

Grade Level 9-12

Personal Financial Responsibility addresses the identification and management of personal financial resources to meet the financial needs and wants of individuals and families, considering a broad range of economic, social, cultural, technological, environmental, and maintenance factors. This course helps students build skills in financial responsibility and decision making; analyze personal standards, needs, wants, and goals; identify sources of income, saving and investing; understand banking, budgeting, record-keeping and managing risk, insurance and credit card debt. A project based approach and applications through authentic settings such as work based observations and service learning experiences are appropriate. Direct, concrete applications of mathematics proficiencies in projects are encouraged.

INTRODUCTION TO BUSINESS (*one semester course paired with Intro to Entrepreneurship*)

Grade Level 9-12

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

INTRODUCTION TO ENTREPRENEURSHIP (*one semester course paired with Intro to Business*)

Grade Level 9-12

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

DIGITAL APPLICATIONS AND RESPONSIBILITIES

Grade Level 9-12

Digital Applications and Responsibilities prepares students to use technology in an effective and appropriate manner in school, in a job, or everyday life. Students develop skills related to word processing, spreadsheets, presentations, and communications software. Students learn what it means to be a good digital citizen and how to use technology, including social media, responsibly. Students expand their knowledge of how to use digital devices and software to build decision-making and problem-solving skills. Students should be provided with the opportunity to seek industry-recognized digital literacy certifications.

BUSINESS LAW AND ETHICS

Grade Level 9-12

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

SPORTS AND ENTERTAINMENT MARKETING

Grade Level 11-12

Sports and Entertainment Marketing is a specialized marketing course that develops student understanding of the sport/event industries, their economic impact, and products; distribution systems and strategies; pricing considerations; product/service management, and promotion. Students acquire an understanding and appreciation for planning. Throughout the course, students are presented problem-solving situations for which they must apply academic and critical-thinking skills. Participation in cooperative education is an optional instructional method, giving students the opportunity to apply newly acquired marketing skills in the workplace.

ENGINEERING AND TECHNOLOGY

***Dual Credits for Advanced Manufacturing I & II
are only transferrable to Ivy Tech Community College**

****Dual Credit for PLTW courses are only transferrable to Ivy Tech Community College
or Purdue University's College of Technology, upon admission**

**NOTE: Dual Credit courses through the Engineering and Technology Department do NOT have an honor point
and are not of weighted valued.**

***DUAL CREDIT**

ADVANCED MANUFACTURING I–THD

Grade Level 9-12

Advanced Manufacturing I is a course that includes classroom and laboratory experiences in two broad areas: Industrial Technology/Software Controls and Manufacturing Trends. Domains include safety and impact, electricity, manufacturing essentials, fluid power principles, mechanical principles, lean manufacturing, and careers in advanced manufacturing. Hands-on projects and team activities will allow students to apply learning on the latest industry technologies. Students take this course with the goal of being a skilled machine operator, repair technician, or working in management at any company that produces goods and services using advanced manufacturing techniques. Work-based learning experiences and industry partnerships are highly encouraged for an authentic industry experience.

***DUAL CREDIT**

ADVANCED MANUFACTURING II–THD

Grade Level 10-12

Advanced Manufacturing II builds on classroom and lab experiences students experienced in Advanced Manufacturing I. Domains include safety and impact, drafting principles, manufacturing programming, CAD/CAM and CNC technologies, automation and robotics, and careers in advanced manufacturing. Hands-on projects and team activities will allow students to apply learning on the latest industry technologies. Students continue this course with the goal of being a skilled machine operator, repair technician, or management at any company that produces goods and services using advanced manufacturing techniques. Work-based learning experiences and industry partnerships are highly encouraged for an authentic industry experience.

****DUAL CREDIT**

INTRO TO ENGINEERING DESIGN – Project Lead the Way (PLTW)–THD

Grade Level 9–12

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

****DUAL CREDIT**

PRINCIPLES OF ENGINEERING – Project Lead the Way (PLTW)–THD

Grade Level 10-12

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

****DUAL CREDIT**

CIVIL ENGINEERING AND ARCHITECTURE– Project Lead the Way (PLTW)–THD

Grade Level 11-12

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

ENGINEERING DESIGN AND DEVELOPMENT– Project Lead the Way (PLTW)–THD

Grade Level 12

Engineering Design and Development is an engineering research course in which students work in teams to research, design, test, and construct a solution to an open-ended engineering problem. The product development life cycle and a design process are used to guide the team to reach a solution to the problem. The team presents and defends their solution to a panel of outside reviewers at the conclusion of the course. The EDD course allows students to apply all the skills and knowledge learned in previous pre-engineering courses. The use of 3D design software helps students design solutions to the problem their team has chosen. This course also engages students in critical thinking and problem-solving skills, time management and teamwork skills, a valuable set for students' future careers.

ARCHITECTURAL DRAFTING AND DESIGN I

Grade Level 9-12

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

INTRODUCTION TO CONSTRUCTION

Grade Level 9-12

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

INTRODUCTION TO DESIGN PROCESSES (Genius Hour)

Grade Level 10-12

Introduction to Design Processes is a course that specializes in modern design and engineering processes with a focus on creative problem solving in developing, testing, communicating, and presenting post-evaluation of products. Students use the design process to analyze research, develop ideas, and produce products solutions. This process gives a framework through which they design, manufacture tests present their ideas. Students will demonstrate and utilize design principles and elements for visual presentation. Designing aspects will also cover aesthetics, ergonomics, the environment, safety, and production. The design process is a core-learning tool for many courses enabling the student to solve problems in a systematic, logical and creative manner. Students develop a good understanding of the way the process helps them think creatively and developing aesthetic ideas. The design process encourages the students to engage in higher level thinking to create solutions for many types of problems.

INTRODUCTION TO TRANSPORTATION

Grade Level 9-12

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

ENGLISH

ALL ENGLISH CLASSES ADDRESS AND/OR EXCEED THE INDIANA STATE STANDARDS.

LANGUAGE ARTS LAB

Grade 9-12

Language Arts Lab is a supplemental course that provides students with individualized or small group instruction designed to support success in completing course work aligned with the *Indiana Academic Standards for English Language/Arts* focusing on the writing standards. All students should be concurrently enrolled in an English course in which class work will address all of the Indiana Academic Standards.

ENGLISH 9–AHD

Grade Level 9

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

H PRE-AP ENGLISH 9–AHD

Grade Level 9

H Pre-AP English 9 is a program designed for students wishing to reach AP English their junior and senior years. Students choosing to enroll for this class are expected to demonstrate a high level of competence in their writing skills, a love of reading, and an ability to understand the nuances of literature. In addition to incorporating the ninth grade language arts proficiency standards stated above, the course includes more advanced reading materials, more complex writing assignments, and multiple speaking experiences.

All students seeking a rigorous Language Arts experience are encouraged to enroll in H Pre-AP English 9. To ensure the best possible chance for academic success, students seeking enrollment in H Pre-AP English 9 should be reading at or above grade level.

ENGLISH 10–AHD

Grade Level 10

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

H PRE-AP ENGLISH 10–AHD

Grade Level 10

H Pre-AP English 10 is a program designed for students wishing to reach AP English their junior and senior year. Students choosing to enroll for this class are expected to demonstrate a high level of competence in their writing skills, a love of reading, and an ability to understand the nuances of literature. In addition to incorporating the tenth grade language arts proficiency standards stated above, the course includes more advanced reading materials, more complex writing assignments, and multiple speaking experiences.

All students seeking a rigorous Language Arts experience are encouraged to enroll in H Pre-AP English 10. To ensure the best possible chance for academic success, students seeking enrollment in H Pre-AP English 10 should have achieved a minimum score of 900 on the Star Reading Exam during three testing sessions administered their ninth grade year. Students achieving this score goal will be enrolled in H Pre-AP English 10 unless recommended otherwise by their ninth grade Language Arts teacher and/or the student's guidance counselor.

ENGLISH 11–AHD

Grade Level 11

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

ENGLISH 12–AHD

Grade Level 12

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

H ENGLISH LANGUAGE/COMPOSITION AP–AHD

Grade Level 11

H English Language and Composition AP is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The course focuses on the development and revision of evidence-based analytic and argumentative writing and the rhetorical analysis of nonfiction texts. The course aligns to an introductory college-level rhetoric and writing curriculum, which requires students to develop evidence-based analytic and argumentative essays that proceed through several stages or drafts. Students evaluate, synthesize, and cite research to support their arguments. Throughout the course, students develop a personal style by making appropriate grammatical choices. Additionally, students read and analyze the rhetorical elements and their effects in non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods. There is no prescribed sequence of study.

H ENGLISH LITERATURE/COMPOSITION AP–AHD

Grade Level 12

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

ENL (English as a New Language)

Grade Level 9-12

English as a New Language, an integrated English course incorporating both the Indiana Academic Standards for English Language Arts and the *WIDA English Language Development (ELD) Standards*, is the study of language, literature, composition and oral communication for Limited English Proficient (LEP) students. The purpose of the course is to achieve proficiency in listening, speaking, reading, writing and comprehension of Standard English. Students study English vocabulary used in fictional texts and content-area texts, speak and write English so that they can function within the regular school setting and an English-speaking society, and deliver oral presentations appropriate to their respective levels of English proficiency.

CREDIT IN JOURNALISM OR STUDENT PUBLICATIONS MAY *NOT* BE USED IN PLACE OF CREDIT FOR REQUIRED ENGLISH CLASSES.

JOURNALISM

Grade Level 11-12

Journalism, a course based on the *Indiana Academic Standards for English/Language Arts*, is a study of news elements, journalism history, First Amendment law, ethics, fact and opinion, copy editing, news, and features as they apply to print and digital media products. It includes a comparison study of journalistic writing to other types of English writing with practical application of news, features, editorials, reviews, columns and digital media writing forms. For the second credit: Students continue to develop journalistic writing skills in addition to studying graphic design, advertising, public relations, photojournalism and emerging media development and design. By the end of the semester, students write, shoot and design stories for print and digital media products.

STUDENT MEDIA (formerly Student Publications)

Grade Level 11-12

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

HEALTH AND PHYSICAL EDUCATION

All freshmen will be enrolled in one semester of PE and one semester of Health during the 9th grade.

ELECTIVE PHYSICAL EDUCATION

Grade Level 11-12

Elective Physical Education, a course based on selected standards from *Indiana's Academic Standards for Physical Education*, identifies what a student should know and be able to do as a result of a quality physical education program. The goal of a physically educated student is to maintain appropriate levels of cardiorespiratory endurance, muscular strength and endurance, flexibility, and body composition necessary for a healthy and productive life. Elective Physical Education promotes lifetime sport and recreational activities and provides an opportunity for an in-depth study in one or more specific areas. A minimum of two of the following activities should be included: team sports; dual sports activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance. This course includes the study of physical development concepts and principles of sport and exercise as well as opportunities to develop or refine skills and attitudes that promote lifelong fitness. Students have the opportunity to design and develop an appropriate personal fitness program that enables them to achieve a desired level of fitness. Ongoing assessment includes both written and performance-based skill evaluation. Individual assessments may be modified for individuals with disabilities, in addition to those with IEP's and 504 plans (e.g., chronic illnesses, temporary injuries, obesity, etc.).

HEALTH AND WELLNESS—AHD (one semester course)

Grade Level 9-10

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

PHYSICAL EDUCATION—AHD

Grade Level 9-10

Physical Education I focuses on instructional strategies through a planned, sequential, and comprehensive physical education curriculum that provides students with opportunities to actively participate in at least four of the following: team sports; dual sport activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance, all which are within the framework of lifetime physical activities and fitness. Ongoing assessment includes both written and performance-based skill evaluation. Individual assessments may be modified for individuals with disabilities, in addition to those with IEP's and 504 plans (e.g., chronic illnesses, temporary injuries, obesity, etc.).

Physical Education II focuses on instructional strategies through a planned, sequential, and comprehensive physical education curriculum that provides students with opportunities to actively participate in four of the following areas that were not covered in Physical Education I: team sports; dual sport activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance, all which are within the framework of lifetime physical activities and fitness. Ongoing assessment includes both written and performance-based skill evaluation. Individual assessments may be modified for individuals with disabilities, in addition to those with IEP's and 504 plans (e.g., chronic illnesses, temporary injuries, obesity, etc.).

MATH

- AT THE END OF THE SCHOOL YEAR, THE RECORDS OF STUDENTS EARNING A “D” IN ANY SEMESTER OF A MATH COURSE WILL BE REVIEWED BY THE MATH FACULTY TO DETERMINE WHETHER IT IS IN THE STUDENT’S BEST INTEREST TO REPEAT THE COURSE.
- ALL COURSES ARE PHASING IN NEW COLLEGE AND CAREER READINESS STANDARDS.
- ALL SOPHOMORES MUST TAKE THE ISTEP+ GRADE 10 MATH REGARDLESS OF WHICH MATH CLASS THEY ARE CURRENTLY ENROLLED. THIS TEST REPLACES ALGEBRA 1 ECA AS A GRADUATION REQUIREMENT FOR ALL STUDENTS BEGINNING WITH THE CLASS OF 2019.
- ATTENDANCE AND PARTICIPATION ARE ESSENTIAL FOR SUCCESS IN MATH.

ALGEBRA I LAB

Grade Level 9-10

Algebra I Lab is a mathematics support course for *Algebra I*. *Algebra I Lab* is taken while students are concurrently enrolled in *Algebra 1*. This course provides students with additional time to build the foundations necessary for high school math courses, while concurrently having access to rigorous, grade-level appropriate courses. The five critical areas of *Algebra I Lab* align with the critical areas of *Algebra I*: Relationships between Quantities and Reasoning with Equations; Linear and Exponential Relationships; Descriptive Statistics; Expressions and Equations; and Quadratic Functions and Modeling. However, whereas *Algebra I* contains exclusively grade-level content, *Algebra I Lab* combines standards from high school courses with foundational standards from the middle grades. **Algebra I Lab is designed as a support for Algebra I. As such, a student taking Algebra I Lab MUST also be enrolled in Algebra I during the same academic year.**

MATHEMATICS LAB

Grade Level 9-12

Mathematics Lab provides students with individualized instruction designed to support success in completing mathematics coursework aligned with Indiana’s Academic Standards for Mathematics. *Mathematics Lab* is to be taken in conjunction with a Core 40 mathematics course, and the content of *Mathematics Lab* should be tightly aligned to the content of its corresponding course. *Mathematics Lab* should not be offered in conjunction with *Algebra I* or *Integrated Mathematics I*; instead, schools should offer *Algebra I Lab* or *Integrated Mathematics I Lab* to provide students with rigorous support for these courses. **Mathematics Lab is designed as a support for students not enrolled in Algebra I.**

ALGEBRA I–AHD
Grade Level 8-12

Algebra I formalizes and extends the mathematics students learned in the middle grades. Algebra I is made up of 5 strands: Real Numbers and Expressions; Functions; Linear Equations, Inequalities, and Functions; Systems of Equations and Inequalities; Quadratic and Exponential Equations and Functions; and Data Analysis and Statistics. These critical areas deepen and extend understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend, and students engage in methods for analyzing, solving, and using quadratic functions. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

GEOMETRY–AHD
Grade Level 10-12

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

H PRE-AP GEOMETRY–AHD
Grade Level 9

H Pre-AP Geometry is designed for the students who have demonstrated above average achievement in algebra and are interested in studying at a greater depth. It applies both inductive reasoning for discovery and deductive reasoning for formal proofs. Students will be expected to prove theorems and write two column proofs on their own. Students will be expected to understand the connections between algebra and geometry and to think through non-routine problems. This is the first course for students who plan to take H Calculus AB AP as a senior.
Prerequisite: Successful mastery of Algebra I proficiencies.

ALGEBRA II–AHD
Grade Level 10-12

Algebra II builds on work with linear, quadratic, and exponential functions and allows for students to extend their repertoire of functions to include polynomial, rational, and radical functions. Students work closely with the expressions that define the functions, and continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. Algebra II is made up of 5 strands: Complex Numbers and Expressions; Functions; Systems of Equations; Quadratic Equations and Functions; Exponential & Logarithmic Equations and Functions; Polynomial, Rational, and Other Equations and Functions; and Data Analysis, Statistics, and Probability. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

H PRE-AP ALGEBRA II–AHD

Grade Level 10-11

H Pre-AP Algebra II should broaden a student's understanding of abstract math. This course concentrates on four major themes: Numbers; mathematical systems; concepts of relations and functions; and solution of equations. Students should be proficient in solving equations, lines and exponent rules. Students will have a brief review of key concepts and skills from Algebra and study matrices, conics, linear and quadratic functions, transcendental functions, higher degree polynomial functions, and their real world applications, as well as an introduction to probability and statistics. Students will use graphing and scientific calculators. Students in this class should expect to understand concepts, not just memorize processes. Additional work includes written reports, oral presentations, and projects. It is a rigorous curriculum designed for students who plan to take H Calculus AB AP as seniors. Prerequisite: Successful mastery of Algebra I and Geometry proficiencies.

PRE-CALCULUS–AHD (*one semester course tied to Trigonometry*)

Grade Level 11-12

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

FINITE MATHEMATICS–AHD (*one semester course tied to Trigonometry*)

Grade Level 12

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

TRIGONOMETRY-AHD (*one semester course tied to Finite Math*)

Grade Level 12

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

H CALCULUS AB AP–AHD

Grade Level 12

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

H STATISTICS AP–AHD

Grade Level 11-12

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

QUANTITATIVE REASONING-AHD (*one semester course tied to Pre-Calculus*)

Grade 11-12

Quantitative Reasoning is a mathematics course focused on the study of numeracy, ratio and proportional reasoning, modeling, probabilistic reasoning to assess risk, and statistics. Students build knowledge of and confidence with basic mathematical/analytical concepts and operations required for problem solving, decision making, and economic productivity in real world applications and prepare for an increasingly information-based society in which the ability to use and critically evaluate information, especially numerical information, is essential. Technology, such as computers and graphing calculators, should be used frequently. This higher-level mathematics course is designed to align with college-level quantitative reasoning courses for dual secondary/college credit. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

MUSIC

ADVANCED CONCERT BAND—AHD

Grade Level 9-12

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

JAZZ ENSEMBLE—AHD

Grade Level 10-12

Jazz Ensemble is based on the Indiana Academic Standards for High School Instrumental Music. Students taking this course develop musicianship and specific performance skills through group and individual settings for the study and performance of varied styles of instrumental jazz. Instruction includes the study of the history, formative, and stylistic elements of jazz. Students develop their creative skills through improvisation, composition, arranging, performing, listening, and analyzing. A limited amount of time outside of the school day may be scheduled for rehearsals and performances. In addition, a limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Students must participate in performance opportunities outside of the school day that support and extend the learning in the classroom. Student participants must also be receiving instruction in another band or orchestra class offering at the discretion of the director.

DANCE PERFORMANCE—AHD

Grade Level 9-12

Dance Performance is based on the Indiana Academic Standards for Dance. Sequential and systematic learning experiences are provided in the specific genre offered, whether it is Ballet, Modern, Jazz, or Ethnic-Folk. Activities utilize a wide variety of materials and experiences and are designed to develop techniques appropriate within the genre, including individual and group instruction in performance repertoire and skills. Students develop the ability to express their thoughts, perceptions, feelings, and images through movement. The performance class provides opportunities for students to experience degrees of physical prowess, technique, flexibility, and the study of dance performance as an artistic discipline and as a form of artistic communication. Students describe, analyze, interpret, and judge live and recorded dance performances of professional dancers and companies in the genre. They also become aware of the career opportunities in dance.

BEGINNING CHORUS—AHD

Grade Level 9-12

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

ADVANCED CHORUS—AHD

Grade Level 9-12

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

SCIENCE

BIOLOGY I–AHD

Grade Level 9

Biology I is a course based on the following core topics: cellular chemistry, structure and reproduction; matter cycles and energy transfer; interdependence of organisms; molecular basis of heredity; genetics and evolution. Instruction should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation by designing and conducting investigations guided by theory and by evaluating and communicating the results of those investigations according to accepted procedures.

H PRE-AP BIOLOGY–AHD

Grade Level 9

H Pre-AP Biology is a course designed for the student who wishes further investigation into the biological sciences. This is a recommended course for anyone wishing to enroll in H Biology AP as a sophomore. This course will examine such disciplines as genetics, evolution, ecology, cell biology, and biochemistry. Some other major topics include scientific method, classification, cell structure and function, cell reproduction, DNA, RNA, and protein synthesis. Inquiry based lab work will accompany many of the topics. Independent assignments, readings, and writings are an integral part of this course. Strong reading skills are a must. It is recommended that students signing up for H Pre-AP Biology already be in Algebra (8th grade), with a C or better, and be regularly scoring in the 80% or above on the Acuity post-tests. Only students motivated to do additional assignments and papers are encouraged to consider H Pre-AP Biology.

ENVIRONMENTAL SCIENCE (L)–AHD

Grade Level 11

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

H BIOLOGY AP–AHD

Grade Level 10-12

H Biology AP is a course based on the content established and copyrighted by the College Board. In taking H Biology AP, students will be in a course equivalent to a college-level science course. Course material includes biochemistry, cell biology, molecular genetics, botany, genetics, physiology, animal behavior, and much more. The AP course will have a substantial laboratory component. AP biology labs will help students in understanding biological problems, develop hypotheses, and design and implement controlled experiments. Students will also be able to identify independent and dependent variables, analyze data, draw conclusions, think analytically, and communicate results using data tables and graphs. **Prerequisite: Biology I**

H ENVIRONMENTAL SCIENCE AP-AHD

Grade 11-12

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

HUMAN ANATOMY/PHYSIOLOGY (L)–AHD

Grade Level 11-12

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

INTEGRATED CHEMISTRY/PHYSICS (L)–AHD

Grade Level 10-12

Integrated Chemistry-Physics 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 should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation by designing and conducting investigations guided by theory and by evaluating and communicating the results of those investigations according to accepted procedures.

H PHYSICS I AP–AHD

Grade Level 11-12

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

H PHYSICS II AP–AHD

Grade Level 11-12

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

CHEMISTRY I–AHD**Grade Level 10-12**

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

H CHEMISTRY AP–AHD**Grade Level 11-12**

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

Prerequisite: Chemistry I

SOCIAL STUDIES

GEOGRAPHY & HISTORY OF THE WORLD – AHD

Grade Level 9

Geography and History of the World is designed to enable students to use geographical tools, skills and historical concepts to deepen their understanding of major global themes including the origin and spread of world religions; exploration; conquest, and imperialism; urbanization; and innovations and revolutions.

Geographical and historical skills include forming research questions, acquiring information by investigating a variety of primary and secondary sources, organizing information by creating graphic representations, analyzing information to determine and explain patterns and trends, planning for the future, and documenting and presenting findings orally or in writing. The historical geography concepts used to explore the global themes include change over time, origin, diffusion, physical systems, cultural landscapes, and spatial distribution/patterns and interaction/relationships.

Students use the knowledge, tools, and skills obtained from this course in order to analyze, evaluate, and make predictions about major global developments. This course is designed to nurture perceptive and responsible citizenship, to encourage and support the development of critical thinking skills and lifelong learning, and to help prepare Indiana students for the 21st Century.

H WORLD HISTORY AP–AHD

Grade Level 9

H World History AP is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. AP World History focuses on developing students' abilities to think conceptually about world history from approximately 8000 BCE to the present and apply historical thinking skills as they learn about the past. Five themes of equal importance — focusing on the environment, cultures, state-building, economic systems, and social structures — provide areas of historical inquiry for investigation throughout the course. AP World History encompasses the history of the five major geographical regions of the globe: Africa, the Americas, Asia, Europe, and Oceania, with special focus on historical developments and processes that cross multiple regions.

All freshmen are required to enroll in either Geography and History or the World or H World History AP. Please note that the H World History AP course is equivalent to the rigor of an introductory college level social studies class. Consequently, the amount of time needed outside of class to complete assignments and master the course content will be significantly more than the non-H World History AP course. To ensure the best possible chance for academic success, students seeking enrollment in H World History AP should be reading at or above grade level.

UNITED STATES HISTORY–AHD

Grade Level 10

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

H UNITED STATES HISTORY AP–AHD

Grade Level 10

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

All sophomores are required to enroll in either US History or H US History AP. Please note that the H US History AP course is equivalent to the rigor of an introductory college level social studies class. Consequently, the amount of time needed outside of class to complete assignments and master the course content will be significantly more than the non-H US History AP course.

PSYCHOLOGY–AHD (*one semester course*)

Grade Level 11

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

CURRENT PROBLEMS, ISSUES, AND EVENTS—AHD (*one semester course*)

Grade Level 11

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

ECONOMICS—AHD (*one semester course paired with US Government*)

Grade Level 12

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

UNITED STATES GOVERNMENT—AHD

Grade Level 12 (*one semester course paired with Economics*)

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

H UNITED STATES GOVERNMENT AND POLITICS AP—AHD

Grade Level 12

H United States Government and Politics AP is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. AP United States Government and Politics introduces students to key political ideas, institutions, policies, interactions, roles, and behaviors that characterize the political culture of the United States. The course examines politically significant concepts and themes, through which students learn to apply disciplinary reasoning assess causes and consequences of political events, and interpret data to develop evidence-based arguments. Topics include: (1) constitutional underpinnings, (2) political beliefs and behaviors, (3) political parties, interest groups, and mass media, (4) institutions of national government, (5) public policy, and (6) civil rights and civil liberties.

H MICROECONOMICS AP-AHD

Grade Level 12

H Microeconomics AP is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. AP Microeconomics is an introductory college-level course that focuses on the principles of economics that apply to the functions of individual economic decision-makers. The course also develops students' familiarity with the operation of product and factor markets, distributions of income, market failure, and the role of government in promoting greater efficiency and equity in the economy. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts. Topics include: Basic Economic Concepts; The Nature and Functions of Product Markets; Factor Markets; and Market Failure and the Role of Government.

H MACROECONOMICS AP–AHD

Grade Level 12

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

TOPICS IN SOCIAL SCIENCE–AHD (*one semester course*)

Grade Level 11

Topics in Social Science provides students with an opportunity for in-depth study of a specific topic, theme, or concept in one of the social science disciplines such as anthropology, archaeology, economics, geography, political science, psychology, or sociology. It is also possible to focus the course on more than one discipline. A subtitle should be included to give a clear idea of the course content. For example, a course focusing on a specific in political science might be entitled, "Topics in Social Science: Comparative Government." Courses taught under this title should emphasize scientific methods of inquiry and help students develop effective research and thinking skills.

WORLD LANGUAGES

SPANISH I–AHD

Grade Level 8-12

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

SPANISH II–AHD

Grade Level 9-12

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

DUAL CREDIT

H SPANISH III/SPAN 101/102 IVY TECH–AHD

Grade Level 10-12

Students earning the required scores on placement testing mandated by Ivy Tech Community College may elect to enroll in 6 hours of college credit. There is no cost to register for the dual credits. All students enrolled in the dual credit course are required to take the placement assessment to determine dual credit eligibility. To qualify for dual credit, students must meet ONE of the following criteria for each subject area (Writing and Reading) to qualify for dual credit:

Writing: ACT-English 17; PSAT 26; SAT 27; ACCUPLACER 80

Reading: ACT-Reading 18; PSAT 25; SAT 25; ACCUPLACER 76

H Spanish III/Span 101/102 Ivy Tech is a course based on *Indiana's Academic Standards for World Languages*, builds upon effective strategies for Spanish language learning by facilitating the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to initiate, sustain and close conversations; exchange detailed information in oral and written form; and write cohesive information with greater detail. This course also emphasizes the continued development of reading and listening comprehension skills, such as using cognates, synonyms and antonyms to derive meaning from written and oral information, as well as comprehending detailed written or oral directions. Students will address the presentational mode by presenting student-created material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will continue to develop understanding of Spanish-speaking culture through recognition of the interrelations among the practices, products and perspectives of the target culture; discussion of significant events in the target culture; and investigation of elements that shape cultural identity in the target culture. This course further emphasizes making connections across content areas as well the application of understanding Spanish language and culture outside of the classroom.

DUAL CREDIT

H SPANISH IV/SPAN 201/202 IVY TECH–AHD

Grade Level 11-12

Students earning the required scores on placement testing mandated by Ivy Tech Community College may elect to enroll in 6 hours of college credit. There is no cost to register for the dual credits. All students enrolled in the dual credit course are required to take the placement assessment to determine dual credit eligibility, and if eligible, register for the dual credit course. To qualify for dual credit, students must meet ONE of the following criteria for each subject area (Writing and Reading) to qualify for dual credit:

Writing: ACT-English 17; PSAT 26; SAT 27; ACCUPLACER 80

Reading: ACT-Reading 18; PSAT 25; SAT 25; ACCUPLACER 76

H Spanish IV/SPAN 201/202 Ivy Tech is a course based on *Indiana's Academic Standards for World Languages*, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral information are expanded through emphasis on practicing speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop understanding of Spanish-speaking culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target culture and the student's own culture. This course further emphasizes making connections across content areas through the design of activities and materials that integrate the target language and culture with concepts and skills from other content areas. The use and influence of the Spanish language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native Spanish speakers.

H SPANISH LANGUAGE AP–AHD

Grade Level 12

H Spanish Language AP is a course established and copyrighted by the College Board and follows the College Board course guidelines for AP Spanish Language and Culture. The course prepares students to be successful on the AP Spanish Language and Culture exam. The course is not intended to be used as a dual credit course.

The H Spanish Language AP course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The H Spanish Language AP course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish.

The H Spanish Language AP course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).