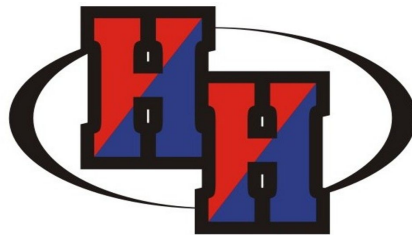


HERITAGE HILLS HIGH SCHOOL



CURRICULUM GUIDE

3644 E CR 1600 N
Lincoln City, IN 47552
812-937-2400
CEEBSAT/ACT Code: 152078

Revised for the 2020-2021 School Year
All information and updates are on the GUIDANCE website at
<http://hhhs.nspencer.k12.in.us/guidance/curriculum>
Additional information from the Indiana Dept. of Education at
<http://www.doe.in.gov/idoeparent-portal>

TABLE OF CONTENTS

Scheduling policies and procedures	2
Retaking a class, Eighth grade classes for credit	2
Heritage Hills High School Grading Scale	3
Diploma Options	4
ISTEP+/Graduation Pathways	6
Quantitative Reasoning Courses	7
Advanced Placement Courses	7
Industry-Based Certification	7
Dual Credit	8
Off Campus Career and Technical Education	10
Career and Technical Education Pathways, Class of 2023 and beyond	11
Career and Technical Education Pathways, Class of 2019-2022	13
Course Descriptions	
CTE: Advanced Manufacturing	17
CTE: Agriculture	17
CTE: Architecture and Construction	18
CTE: Arts, AV Tech, and Communication	19
CTE: Business and Marketing	19
CTE: Education and Training	20
CTE: Health Sciences	20
CTE: Hospitality and Human Services	22
CTE: Information Technology	22
CTE: Public Safety	23
CTE: STEM	23
CTE: Transportation	24
Multidisciplinary	24
English Language Arts	25
Fine Arts	27
Health, Physical Education and Safety	29
Mathematics	30
Science	31
Social Studies	34
World Languages	35

SCHEDULING POLICIES

HHHS has seven class periods per day. A student must select seven classes or a minimum of six subjects if a study hall is chosen for either one or both semesters. A schedule change may be made under the following circumstances: need of a class previously failed, time schedule does not allow the class, a teacher recommends the student consider dropping a class or if there has been a scheduling error. **STUDENT REQUESTS FOR SCHEDULE CHANGES MUST BE PRESENTED PRIOR TO THE START OF EACH SEMESTER.** Since a student's subjects are selected after the student, parent, and counselor have agreed, there should be few instances when it becomes necessary to drop a course. In any case, this may be done only after consultation with the teacher, counselor and parent and approval of the administration. A student may be withdrawn from class for disciplinary reasons, excessive tardies/absences, or as deemed necessary, in which case the student may receive an "F" and be placed in a study hall.

SCHEDULING PROCEDURES

Beginning in January, students' schedules are decided for the following year. Because one's educational background is such a significant determinant for the future, much time is devoted to the scheduling process. Information is given to each student regarding requirements and electives for the coming year. Students are encouraged to discuss their choices with their parents and teachers. The counselors assist each student in planning next year's courses. Incoming freshmen and their parents attend an evening meeting where high school requirements are explained, with particular emphasis on freshman requirements and electives. Occasionally a course that is offered is dropped due to insufficient enrollment. In other cases a second choice has to be made due to a conflict of two or more course requests meeting at the same time. Some courses have limited number of class seats. If a selection process is necessary to determine which students are enrolled in a particular program, that selection is based upon student's (1) seniority, (2) attendance records, and (3) background courses with satisfactory grades. When possible, students are given their first choice in electives.

POLICY FOR RETAKING A CLASS AT HERITAGE HILLS

A student may retake a class for the purpose of improving the understanding of the subject. If a student retakes a class, he will not receive an additional credit. The class will be listed on the transcript both times the class is taken, and the average of both grades will be calculated into the cumulative GPA. A class may only be retaken if the initial grade earned is a C- or less.

POLICY FOR EIGHTH GRADERS TAKING A COURSE FOR HIGH SCHOOL CREDIT

The grade, for any class that counts toward a high school diploma, earned in the eighth grade will be recorded on the transcript and will count in the cumulative GPA unless the student retakes the class during the freshman year of high school.

GRADING SCALE

[Return to table of contents](#)

Heritage Hills High School offers a rigorous curriculum in its mission to prepare students for a fulfilling life after high school. Advanced Placement and honors academic courses reflect the rigor required for students preparing to enter into a demanding college or career path. A weighted grading system encourages advanced students to take courses that better suit their capabilities, rewards their efforts, and allows them to be more competitive with other graduates in college admissions and scholarship opportunities.

How Grade Point Average (GPA) is calculated at Heritage Hills High School.

A point value is assigned to every grade earned at the end of each semester (traditional 4.0 scale). Those values are then multiplied by the credit value of each course. Those results are then totaled and divided by the total number of credits attempted in the semester. That final number is the student's GPA. At the end of the semester, an additional .02 is added to the accumulated grade point average for every weighted class taken. The cumulative GPA includes all semester grades in every course the student has completed.

Grading Scale used to calculate Grade Point Average (4.0 Scale)

A = 4.0	A- = 3.75	B+ = 3.50	B = 3.00	B- = 2.75
C+ = 2.50	C = 2.00	C- = 1.75	D+ = 1.50	D = 1.00
				D- = .75

Weighted courses:

*AP exam is required in order to earn the weight for an AP course

English 9 Honors	Algebra II Honors	Biology Honors
English 10 Honors	Geometry Honors	Chemistry II
AP English Language	Precalculus	AP Physics I
AP English Literature	AP Calculus AB and BC	AP Physics II
Spanish IV	Anatomy and Physiology I	Anatomy and Physiology II
German IV	PLTW: Medical Interventions	Engineering Design and Development

Samples:

Student #1 does not take weighted courses for the semester:

Course #1 = A
Course #2 = A
Course #3 = A
Course #4 = A
Course #5 = B
Course #6 = B
Course #7 = Study hall (no points awarded)

GPA Calculation:

4×4 (A = 4 grade points) + 2×3 (B = 3 grade points)

$16 + 6 = 22$ grade points / 6 courses = 3.667 GPA

Student #1 GPA for the semester is 3.667

Student #2 takes one weighted course for the semester:

Course #1 = A
Course #2 = A
Course #3 = A
Course #4 = A
Course #5 = B
Course #6 = B
Course #7 = Study hall (no points awarded)

GPA Calculation:

4×4 (A = 4 grade points) + 2×3 (B = 3 grade points)

$16 + 6 = 22$ grade points / 6 courses = 3.667 GPA

Add .02 for the one weighted course.

Student #2 GPA for the semester is 3.687

Class Rank:

The weighted class rank of a grade level is calculated at the end of every semester and again at the beginning of each school year. The cumulative GPA's in each grade level are ranked from highest to lowest to determine the class rank.

Honor Roll is calculated for each 9 weeks grading period. There is no semester honor roll.*Both weighted rank and weighted GPA are reflected on the high school transcript.

Summa Cum Laude 3.80 - 4+ Magna Cum Laude 3.50 - 3.79 Cum Laude 3.30 - 3.49

INDIANA DIPLOMA OPTIONS AT HERITAGE HILLS HIGH SCHOOL

**CORE 40
CORE 40 WITH ACADEMIC HONORS
CORE 40 WITH TECHNICAL HONORS**



Course and Credit Requirements – 40 total credits	
English/ Language Arts	8 credits Including a balance of literature, composition and speech.
Mathematics	6 credits (in grades 9-12) 2 credits: Algebra I 2 credits: Algebra II or Algebra II Honors 2 credits: Geometry or Geometry Honors <i>Students must take a math or quantitative reasoning course each year in high school</i>
Science	6 credits 2 credits: Biology I or Biology Honors 2 credits: Chemistry I or Physics I or Integrated Chemistry-Physics 2 credits: Any additional science course
Social Studies	6 credits 2 credits: U.S. History 1 credit: U.S. Government 1 credit: Economics 2 credits: World History and Civilization
Directed Electives	5 credits World Languages Fine Arts Career and Technical Education
Physical Education	2 credits (combination of class during school year, class in summer, or participation in sport/dance/cheer/band beyond 9 th grade)
Health and Wellness Education	1 credit
Personal Finance	1 credit Preparing for College & Careers (HHHS requirement)
Electives	5-6 credits (College and Career Pathway courses recommended)

Core 40 with Academic Honors

(minimum 47 credits)

For the Core 40 with Academic Honors diploma, students must:

- Complete all requirements for Core 40.
- Earn 2 additional math credits (Pre-calculus or Quantitative Reasoning)
- Earn 6-8 world language credits (German or Spanish)
(6 credits in one language or 4 credits each in two languages).
- Earn 2 fine arts credits (Art, Band, Chorus, Theater Arts, Student Media/Yearbook)
- Earn a semester grade of “C-” or better in courses that will count toward the diploma.
- Have a cumulative grade point average of a “B” (3.0) or better.
- Complete one of the following:
 - A. Earn 4 credits in 2 or more AP courses and take the corresponding AP exams
 - B. Earn 6 verifiable transcribed college credits in dual credit courses from priority course list.(See page 7)
 - C. Earn both 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 composite score of 1250 or higher on the SAT and a minimum score of 560 on math and 590 on the evidence based reading and writing section
 - E. Earn an ACT composite score of 26 or higher and complete written section

Core 40 with Technical Honors

(minimum 47 credits)

For the Core 40 with Technical Honors diploma, students must:

- Complete all requirements for Core 40.
- Earn 6 credits in the college and career preparation courses in a state-approved College & Career Pathway and one of the following:
 1. Pathway designated industry-based certification, (see page 7) or
 2. Pathway dual credits from the lists of priority courses resulting in 6 transcribed college credits (p 7)
- Earn a semester grade of “C-” or better in courses that will count toward the diploma.
- Have a cumulative grade point average of a “B” (3.0) or better.
- 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.

ISTEP+ / GRADUATION QUALIFYING EXAMS OR GRADUATION PATHWAYS

To graduate from high school, students must pass the ISTEP+ in English/Language Arts and Math OR complete a Graduation Pathway. Beginning with the Class of 2023, students will not take ISTEP but will be required to complete a Graduation Pathway. See the Indiana Department of Education website for more details:

<https://www.doe.in.gov/student-services/student-assistance/indiana-graduation-requirements>



The path to graduation is not one-size-fits-all. Indiana provides many pathways for students to earn a high school diploma.

OVERVIEW

Students starting with the Class of 2023 must meet all of the following:

- 1 Credits**
- 2 Learn & Demonstrate Employability Skills**
- 3 Postsecondary-Ready Competencies**

1 Credits

Earn one of the diploma designations...

- Core 40
- Academic Honors
- Technical Honors

2 Learn & Demonstrate Employability Skills

Complete one of the following experiences...

- Project Based Learning
- Service Based Learning
- Work Based Learning

Choices are in coursework, some sports and clubs, or in part time work for an experience of at least 75 hours.

Preparing for College and Careers class taken by all students COUNTS for this requirement as Project Based Learning.

3 Postsecondary-Ready Competencies

Meet at least one of these competencies...

- Academic or Technical Honors diploma
- SAT Test: minimum scores reading/writing=480 and math=530
- ACT Test: minimum scores English=18, Reading=22, Math=22, Science=23 (2 out of 4 needed with at least one in English/Reading and one Math/Science)
- ASVAB Test: minimum score = 31
- Industry Certification from approved IN Dept of Workforce Development List
- CTE Concentrator - earn minimum of C average in state approved Career Technical Education Pathway [Click here for HH Concentrator Options](#)
- AP/Dual Credit with C or higher in 3 courses (1 of 3 must be in core content or all 3 must be part of CTE pathway)

QUANTITATIVE REASONING COURSES

[Return to table of contents](#)

For the Core 40, Academic Honors and Technical Honors Diplomas, students must take a mathematics course or a quantitative reasoning course each year they are enrolled in high school. QR courses at HHHS are:

Economics	Advanced Life Science, Animals	Agribusiness Management
Integrated Chemistry/Physics	PLTW: Civil Engineering and Architecture	Principles of Engineering
Business Math	AP Physics II	Computer Science I
AP Physics I	Chemistry II	Computer Science II
Chemistry I	Adv Manufacturing II	AP Calculus
Advanced Life Science, Foods	Quantitative Reasoning	Computer Integrated Manufacturing

ADVANCED PLACEMENT (AP) COURSES

Advanced Placement (AP) tests are offered to high school students through the College Board. Students are able to earn college credit and/or course equivalencies with a sufficient score on an AP exam. Students take AP classes to prepare for the exams, as well as to earn high school credit. All two and four-year Indiana public colleges and universities award college credit that counts toward a degree for scores of 3 or higher. More information: <https://apstudent.collegeboard.org>. AP courses offered at HH are:

AP Language and Composition	AP Literature and Composition	AP Calculus
AP Physics I	AP Physics II	

INDUSTRY-BASED CERTIFICATION

All students have the opportunity to earn certification through course completion/successful testing in the following courses. Students pursuing a Core 40 with Technical Honors diploma may be required to earn an industry-based certification. It is important to check with the course instructor and counselor for more information on certifications.

Heritage Hills Course	College and Career Pathway	Industry Based Certifications
Welding Technology/5776/5778 Ivy Tech Advanced Manufacturing I/5608 Advanced Manufacturing II/5606	CTE: Advanced Manufacturing	WELD 206 Stick Certification WELD 272 MIG Certification WELD 273 TIG Certification MSSC Certified Production Technician (CPT) - must pass 4 exams (Safety; Quality Practices & Measurement; Manufacturing Processes & Production; Maintenance Awareness)
Independent study for a Business concentrator student	CTE: Business and Marketing	Microsoft Office Specialist (MOS)
Health Science:Nursing/5282 Tell City High School	CTE: Health Sciences	Indiana State Certified Nursing Assistant (CNA)
Culinary Arts & Hospitality/5440 Tell City High School	CTE: Hospitality and Human Resources	ServSafe
Information Technology Support/5230 VUJC	CTE: Information Technology	CompTIA A+ Certification may be attained; fee associated for the certification
Emergency Medical Services/5210 VUJC	CTE: Public Safety	EMT: Basic (must be 18 to take the test)
Introduction to Engineering Design/4802 Civil Engineering Architecture/5650	CTE: STEM	Autodesk Certified Professional (ACP)-Inventor (see instructor for details) Autodesk Certified User (ACU)-Revit Architecture (see instructor for details)
Automotive Services Technology/5510/5546	CTE: Transportation	Automotive Service Excellence Certification (ASE)

DUAL CREDIT/ DUAL CREDIT PRIORITY COURSES

[Return to table of contents](#)

Dual credit courses allow a student to earn both high school and college credit from the college or technical school from which the course is articulated. At HH, the colleges that grant the dual credits are listed below. Each college processes dual credit differently. The dual credit information is presented to the students by the HHHS teacher at the beginning of the semester. It is the responsibility of the student to check with his/her intended college program to make sure the credit will transfer, as either a required course or as an elective. The student can also check www.TransferIN.net for dual credit Q&A. The list of dual credit courses may change, and so students should ask a counselor or the course instructor about the availability of the course, the application process and current cost. Students who are eligible for free/reduced lunch may be able to take dual credit courses free of charge. *To qualify for dual credit for USI, OCU and VU, a student must be a Junior or Senior. *A course marked with an asterisk indicates that the course is on the “Dual Credit Priority Courses” list. AHD and THD students may need to take up to six dual credits from the priority course list.

High School Course Name/Number	College granting the Dual/College Credits	College Credits	College Course Name/Number
CTE: ADVANCED MANUFACTURING			
*Welding I/5776 at Ivy Tech TC weekly	Ivy Tech Community College	3 credits per course choice	Shielded Metal Arc/WELD 108 Shielded Metal Arc II/WELD 206 Gas Tungsten Arc (TIG)/WELD 208 Gas Tungsten Arc(TIG) II/WELD 273 Gas Metal Arc (MIG)/ WELD 207 Gas Metal Arc (MIG) II/ WELD 272
*Welding II/5778 at Ivy Tech TC weekly	Ivy Tech Community College	6 credits	Shielded Metal Arc Weld II/WELD 206 Gas Metal Arc Welding/WELD 207 Gas Tungsten Arch/WELD 208 Adv. Gas Tungsten Arch/WELD 273
*Industrial Technical Maintenance I/5686 at Ivy Tech TC daily	Ivy Tech Community College	3 credits 3 credits 3 credits 3 credits	Basic Electricity/INDT 113 Fluid Power Basics/INDT 104 Automation-Mechatronics Elec & Robotic Systems/ADMF 122 Motors and Motor Controls/INDT 103
*Industrial Automation and Robotics/5610 at VUJC daily	Vincennes University Jasper Campus	3 credits 2 credits 3 credits	Introduction to Industrial Maintenance/MFNG 130 Concepts of Fluid Powers/CIMT 201 Concepts of Industrial Automation/CIMT 220
*Industrial Automation and Robotics/5612 at VUJC daily	Vincennes University Jasper Campus	3 credits 3 credits 2 credits	CIMT 110 Electronics in Automation CIMT 110 Lab CIMT 202 Concepts of PLC
CTE: AGRICULTURE			
*Adv Life Science: Foods/5072	Ivy Tech Community College	3 credits	Advanced Food Science/AGRI 108
*Animal Science/5008	Ivy Tech Community College	3 credits	Animal Science/AGRI 103
*Power, Structure and Technology I/5088	Ivy Tech Community College	3 credits	Agricultural Mech/AGRI 106
*Agribusiness Management/5002	Ivy Tech Community College	3 credits	Agricultural Business and Farm Management/ AGRI 102
CTE: ARCHITECTURE AND CONSTRUCTION			
*Construction Trades I/5580 at TC HS daily	Ivy Tech Community College	3 credits 3 credits	Introduction to Construction Technology/BCOT 100 Introduction to Carpentry/BCOT 101
*Construction Trades I/5580 at VUJC daily	Vincennes University	12 credits	CONST 120, 105 ,105 LAB, 261, ARCH 102.
*Construction Trades II/5578 at TC HS daily	Ivy Tech Community College	3 credits	Introduction to Carpentry Part 2/ BCOT 102

*Construction Trades II/5578 at VUJC daily	Vincennes University	13 credits	CONST 100, 155, 155 LAB, 270, 270 LAB, 160, 160 LAB.
CTE: HEALTH SCIENCE			
*Anatomy and Physiology/5276	Vincennes University	4 credits	Anatomy,Physiology I/BIOL 111/111L
*Health Science Educ.I/5282	Ivy Tech Community College	3 credits	Introduction to Health Careers/HLHS 100
*Health Science Educ II Nursing/5284	Ivy Tech Community College	5 credits	Health Science Ed CNA Preparation/HLHS 107
*Anatomy and Physiology II/6138	Vincennes University	4 credits	Anatomy & Physiology II/BIOL 112 and BIOL 112L
CTE: HOSPITALITY AND HUMAN SERVICES			
*Culinary Arts and Hospitality I/5440 at TC HS daily	Ivy Tech Community College	2 credits 3 credits	Sanitation and First Aid/HOSP 101 Basic Food Theory& Skills/HOSP 102
CTE: INFORMATION TECHNOLOGY			
*Information Tech Support/5230 at VUJC daily	Vincennes University	3 credits 2 credits	Computer Maintenance/CMET 140 Computer Maintenance II/CMET 185
CTE: PUBLIC SAFETY			
Emergency Medical Services/EMT/5210	Vincennes University	6 credits	Emergency Medical Technician/ EMTB 212
CTE: STEM - ENGINEERING			
*Intro. To Engineering Design/4802 (pre-reg for additional PLTW dual credit)	Ivy Tech Community College	3 credits 3 credits	Intro to Design Tech/DESN 101 2D Computer Aided Des/DESN 113
*Civil Engineering and Architecture/5650	Ivy Tech Community College	3 credits	Architectural Design/DESN 105 *You cannot earn this dual credit if you did not get the dual credit for IED.
CTE: TRANSPORTATION			
*Automotive Service Technology II/5546 -must complete all three Auto courses for the dual credits, must have an A or B in every semester in all three years of Auto	Ivy Tech Community College	3 credits 3 credits 3 credits 3 credits 3 credits 3 credits	Basic Automotive Service/AUTI 100 Brake Systems/AUTI 121 Steering & Suspension Syst/AUTI 122 Engine Performance Syt I/AUTI 131 Engine Fundamentals/AUTI 141 Repair & Driveline Service/AUTI 145
*Aviation Operations/5528 Huntingburg Airport	Vincennes University	TBA	TBA
ENGLISH / LANGUAGE ARTS			
AP Language and Composition/1056	University of Southern Indiana	3 credits	Rhetoric and Comp/ENG. 101
AP Literature and Composition/1058	University of Southern Indiana	3 credits	Introduction to Literature/ENG. 105
*Adv. Speech & Communication/1078	Oakland City University	3 credits	Fundamentals of Speech/COMM 202
MATHEMATICS			
*Pre-Calculus/Trigonometry/2564	Oakland City University	3 credits	College Algebra/MATH 115
*Quantitative Reasoning/2550	Ivy Tech Community College	3 credits	Quantitative Reasoning/MATH 123
SCIENCE			
*Chemistry II/3066	University of Southern Indiana	4 credits	General Chemistry/CHEM 261
*Anatomy and Physiology/5276	Vincennes University	4 credits	Anatomy,Physiology I/BIOL 111/111L
*Adv Life Science: Foods/5008	Ivy Tech Community College	3 credits	Advanced Food Science/AGRI 108
*Animal Science/5008	Ivy Tech Community College	3 credits	Animal Science/AGRI 103
SOCIAL STUDIES			
*US History/1542	University of Southern Indiana	3 credits	History U.S. since 1865/HIST 102
*Psychology/1532	Oakland City University	3 credits	General Psychology/PSY 101

WORLD LANGUAGES

*Spanish III/Term 1/2124	Oakland City University	3 credits	Beg. Spanish I/SPAN 101
*Spanish III/Term 2/2124	Oakland City University	3 credits	Beg. Spanish II/SPAN 102
*Spanish IV/Term 1/2126	University of Southern Indiana	3 credits	Inter. Spanish I/SPAN 203
*Spanish IV/Term 2/2126	University of Southern Indiana	3 credits	Inter. Spanish II/SPAN 204
*German IV/2046	University of Southern Indiana	tba	tba

OFF CAMPUS CAREER AND TECHNICAL EDUCATION PROGRAMS

The Patoka Valley Career and Technical Cooperative is a cooperative effort by North Spencer County School Corporation and other local schools to provide students with the opportunity to select areas of learning which provide them with career experiences and transferable skills to postsecondary institutions such as colleges and apprenticeship programs. Students provide their own transportation to and from off-campus programs. Ask a counselor for more information about shared programs. More information <http://patokavalleycooperative.blogspot.com/>. Career Preparation courses and their locations (subject to change) include

Off campus programs:

- Health Science Ed 2 Nursing, Tell City High School (per 1-2)
- Health Science Ed I, Tell City (period 3)
- Welding Technology I and II, Ivy Tech Tell City (one evening 5:30 - 10:30)
- Industrial Automation and Robotics-VUJC (7-8:45)
- Industrial Automation and Robotics-VUJC (12:15-2)
- Information Technology Support-VUJC (7-8:45am)
- Information Technology Support-VUJC (7-8:45)
- Radio and Television - Tell City HS (periods 1 and 2)
- Culinary Arts and Hospitality, Tell City HS (periods 1-2)
- Construction Trades I,, Tell City HS(periods 1-3 or 5-7)
- Construction Trades I, VUJC (7-8:45)
- Construction Trades II, Tell City (Periods 1-3 or 5-7)
- Construction Trades II, VUJC (12:15-2)
- Emergency Med. Services/EMT, VUJC (7-8:45)
- Industrial Technical Maintenance I, Ivy Tech TC (period 1-2)
- Aviation Operations, Huntingburg Airport, (time TBA)

HHHS CAREER AND TECHNICAL EDUCATION CONCENTRATORS FOR THE CLASSES OF 2023 AND BEYOND

To be a CTE concentrator, students must earn a C average in at least two non-duplicative advanced courses within a particular program or program of study

() High School Credits # Dual Credit Course * Dual Credit-Priority Course List & Option for Certification

[Return to table of contents](#)

<p style="text-align: center;">ADVANCED MANUFACTURING <u>Advanced Manufacturing</u> &Advanced Manufacturing I(2) &Advanced Manufacturing II(2) <i>For THD, can earn MSSC certification</i></p> <p style="text-align: center;"><u>Robotics</u> Industrial Automation and Robotics I (VUJC)(6) Industrial Automation and Robotics II (VUJC)(6) <i>For THD, must earn 6 dual credits</i></p> <p style="text-align: center;"><u>Welding</u> *&Welding Technology I (Ivy Tech) (2) *&Welding Technology II (Ivy Tech) (2) <i>For THD, must earn 6 dual credits or welding certification</i></p>	<p style="text-align: center;">AGRICULTURE <u>Agriculture Power, Structure, and Technology Systems</u> *Agriculture Power, Structure, and Technology(2) *Agribusiness Management(2)</p> <p style="text-align: center;"><u>Food Products and Processing Systems</u> *Advanced Life Science: Foods(2) *Agribusiness Management(2)</p> <p style="text-align: center;"><i>For THD, must earn 6 dual credits in any of these pathways of study</i></p>	<p style="text-align: center;">ARCHITECTURE AND CONSTRUCTION <u>Construction</u> *Construction Trades I (TC/VUJC) (6) Construction Trades II (TC/VUJC) (6) <i>For THD, must earn 6 dual credits</i></p>
<p style="text-align: center;">ARTS, AV TECH AND COMMUNICATION</p> <p style="text-align: center;">No current specific pathway, but see course descriptions for classes that can help prepare for this field</p>	<p style="text-align: center;">BUSINESS AND MARKETING <u>Office Management</u> Principles of Business Management(2) Administrative Office Management(2) <i>No THD dual credit or certification at this time</i></p>	<p style="text-align: center;">EDUCATION AND TRAINING</p> <p style="text-align: center;">No current specific pathway, but see course descriptions for classes that can help prepare for this field</p>
<p style="text-align: center;">HEALTH SCIENCES <u>Biomed/Tech</u> (Principles of Biomedical Sciences) Human Body Systems(2) Medical Interventions(2) <i>For THD, 6 dual credit or certification must be earned in another health science courses</i></p> <p style="text-align: center;"><u>Nursing</u> Health Science Education I (TC)(2) Health Science Education II: Nursing (TC)(4) <i>For THD, CNA cert or 6 dual credits must be earned</i></p>	<p style="text-align: center;">HOSPITALITY AND HUMAN SERVICES</p> <p style="text-align: center;">No current specific pathway, but see course descriptions for classes that can help prepare for this field</p>	<p style="text-align: center;">INFORMATION TECHNOLOGY <u>Computer Science/Programming</u> Computer Science I (2) Computer Science II (2) <i>No THD dual credit or certification available at this time</i></p>

<p style="text-align: center;">PUBLIC SAFETY</p> <p style="text-align: center;"><u>EMT/Paramedic</u></p> <p>*&Health Science Education I (TC) (4) *Emergency Med. Services (VUJC) (6) <i>For THD, must earn 6 dual credits or become EMT certified</i></p>	<p style="text-align: center;">STEM</p> <p style="text-align: center;"><u>Engineering</u></p> <p>(Introduction to Engineering) Civil Engineering and Architecture (2) Principles of Engineering (2) <i>For THD, must earn 6 dual credits in IED</i></p> <p>(Introduction to Engineering) Computer Integrated Manufacturing (2) Principles of Engineering (2) <i>For THD, must earn 6 dual credits in IED</i></p>	<p style="text-align: center;">TRANSPORTATION</p> <p style="text-align: center;"><u>Automotive Technology</u></p> <p>*Automotive Services Technology I (4) *& Automotive Services Tech II (6) <i>For THD, must earn 6 dual credits or earn ASE certification</i></p>
--	---	--

HHHS CAREER AND TECHNICAL EDUCATION CONCENTRATORS FOR THE CLASSES OF 2019-2022

To be a CTE concentrator, students must earn a C average or higher in at least 6 credits

Preparing for College and Careers counts as one (1) credit for each pathway

() High School Credits # Dual Credit Course * Dual Credit-Priority Course List & Option for Certification

[Return to table of contents](#)

ADVANCED MANUFACTURING

ADVANCED MANUFACTURING

*Introduction to Engineering Design (2)
Principles of Engineering (2)
&Advanced Manufacturing I (2)
&Advanced Manufacturing II (2)
*Automation and Robotics I(VUJC)(6)
*Automation and Robotics II (VUJC)(6)
ICE (6)
Work Based Learning (4)
THD-earn MSSC Certification

ELECTRONICS

*Introduction to Engineering Design (2)
*Industrial Automation and Robotics (6)
THD-must earn 6 dual credits

WELDING

*Introduction to Engineering Design (2)
*&Welding Technology I, II Ivy Tech(2-4)
ICE (6)
Work Based Learning (4)
*THD-must earn 6 dual credits or
welding certification*

AGRICULTURE

AGRIBUSINESS

Intro to Ag, Food & Natural Res (2)
*Animal Sciences (2)
*ALS Foods (2)
*Power, Structure & Technology (2-4)
*Agribusiness Mgmt. (2)
SAE(2)
ICE (6)
Work Based Learning (4)
THD-must earn 6 dual credits

ANIMAL SCIENCE

Intro to Ag, Food & Natural Res (2)
*Animal Science (2)
*Adv Life Sci/Animals (2)
SAE(2)
ICE (6)
Work Based Learning (4)
THD-must earn 6 dual credits

FOOD SCIENCE

Intro to Ag, Food & Natural Res (2)
*ALS Foods (2)
SAE(2)
ICE (6)
Work Based Learning (4)
THD-must earn 6 dual credits

HORTICULTURE & LANDSCAPE

Intro to Ag, Food & Natural Res (2)
*Plant and Soil Science (2)
*ALS Foods (2)
SAE(2)
ICE (6)
Work Based Learning (4)
THD-must earn 6 dual credits

NATURAL RESOURCES

Intro to Ag, Food & Natural Res (2)
*Natural Resources (2)
*ALS Foods (2)
SAE(2)
ICE (6)
Work Based Learning (4)
THD-must earn 6 dual credits

PLANT & SOIL

Intro to Ag, Food & Natural Res (2)
*Plant & Soil Science (2)
*ALS Foods (2)
SAE(2)
ICE (6)
*THD-must earn 6 dual credits*Work
Based Learning (4)

ARCHITECTURE & CONSTRUCTION

BUILDING AND FACILITY MAINTENANCE

Introduction to Construction (2)
*Industrial Tech Maintenance (4) at Ivy Tech
*Construction Trades II TC/VUJC (6)

ICE (6)

Work Based Learning (4)

THD-must earn 6 dual credits

COMMERCIAL & RESIDENTIAL FACILITIES MANAGEMENT

Introduction to Construction (2)
*Industrial Tech Maintenance (4) at Ivy Tech
ICE (6)

Work Based Learning (4)

THD-must earn 6 dual credits

CONSTRUCTION

Introduction to Construction (2)
*Construction Trades I TC/VUJC(6)
*Construction Trades II TC/VUJC(6)
THD-must earn 6 dual credits

ELECTRICAL

Introduction to Construction (2)
*Construction Trades II TC/VUJC(6)
THD-must earn 6 dual credits

HEAVY EQUIPMENT

Introduction to Construction (2)
*Construction Trades II TC/VUJC(6)
THD-must earn 6 dual credits

HVAC

Introduction to Construction (2)
*Construction Trades II TC/VUJC(6)
THD-must earn 6 dual credits

MECHANICAL

*PLTW: Intro to Engineering Design (2)
Principles of Engineering (2)
*Construction Trades II (6)
ICE (6)
Work Based Learning (4)
THD-must earn 6 dual credits

BUSINESS AND MARKETING

ACCOUNTING AND FINANCE

Principles of Bus Management (2)
Intro to Accounting (2)
ICE (6)
Work Based Learning (4)
THD-MOS cert, independent study

ENTREPRENEURSHIP & MANAGEMENT, BUSINESS MANAGEMENT FOCUS

Principles of Bus Management (2)
Intro to Accounting (2)
Principles of Marketing (2)
Admin and Office Management (2)
ICE (6)
Work Based Learning (4)
THD-MOS cert, independent study

ENTREPRENEURSHIP & MANAGEMENT

ENTREPRENEURSHIP FOCUS
Principles of Bus Management (2)
Intro to Accounting (2)
Principles of Marketing (2)
Admin and Office Management (2)
ICE (6)
Work Based Learning (4)
THD-MOS cert, independent study

MARKETING MANAGEMENT, MARKETING

Principles of Bus Management (2)
Principles of Marketing (2)
ICE (6)
Work Based Learning (4)
THD-MOS cert, independent study

HEALTH SCIENCES

BIOMEDICAL

PLTW Principles of Biomed (2)
PLTW Human Body Systems (2)
PLTW Medical Interventions (2)
THD-must add CNA cert course

BIOTECHNOLOGY

PLTW Principles of Biomed (2)
PLTW Human Body Systems (2)
PLTW Medical Interventions (2)
THD-must add CNA cert course

COMPREHENSIVE HEALTH SCIENCE &/OR EMERGING CAREERS

*Health Sci. Education I (TC)(2)
*Anatomy & Physiology (2)
ICE (6)
Work Based Learning (4)
THD-must add CNA cert course

HEALTH CAREER SPECIALTIES

*Health Science Education I(TC) (2)
*Anatomy & Physiology (2)
*&Health Sci Ed II Nursing (TC)(4)
THD-must add CNA cert course

HEALTH SCIENCE

CAREERS-PHYSICAL THERAPY
*&Health Science Education I(TC) (2)
*Anatomy & Physiology (2)
ICE (6)
Work Based Learning (4)
THD-must add CNA cert course

NURSING

Principles of Biomed Sci (2)
Human Body Systems (2)
Medical Interventions (2)
*Health Science Education I(TC) (2)
*Anatomy & Physiology (2)
*&Heath Sci Ed II Nursing (TC)(4)
THD-must add CNA cert course

VETERINARY

*Anatomy & Physiology (2)
*Animal Sciences (2)
ICE (6)
Work Based Learning (4)
THD-must add CNA cert course

INFORMATION TECHNOLOGY

COMPUTER SCIENCE

Intro to Computer Science (1)
Computer Science I (2)
Computer Science II (2)
ICE (6)
Work Based Learning (4)
THD-no option for THD

NETWORKING

Intro to Computer Science (1)
Computer Science I (2)
*Information Technology Support (6)
THD-must earn 6 dual credits

PC SUPPORT/IT TECHNOLOGY SUPPORT

Intro to Computer Science (1)
Computer Science I (2)
*Information Technology Support (6)
THD-must earn 6 dual credits

PUBLIC SAFETY

EMT/Paramedic

*Emergency Med Services (VUJC)(6)
*&Health Science Education I (TC)(2)
THD-must earn 6 dual credits or CNA certification

FIRE & RESCUE

*Emergency Medical Services (6)
THD-must earn 6 dual credits

STEM

ENGINEERING

*Introduction to Engineering Design (2)
*Civil Engineering & Architecture (2)
Principles of Engineering (2)
Computer Integrated Manu (2)
Computer Science I (2)
*Industrial Automation and Robotics (VUJC)(6)
THD-must earn 6 dual credits

TRANSPORTATION & LOGISTICS

AUTOMOTIVE TECHNOLOGY

Introduction to Transportation (2)
*Automotive Service Technology I (4)
*&Automotive Service Technology II (6)
THD-must earn 6 dual credits or ASE certification

AVIATION FLIGHT & OPERATIONS

Introduction to Transportation (2)
*PLTW: Intro to Engineering Design (2)
Principles of Engineering (2)
ICE (6)
Work Based Learning (4)
THD- must earn 6 dual credits

AVIATION MAINTENANCE

Introduction to Transportation (2)
*Intro to Engineering Design (2)
Principles of Engineering (2)
ICE (6)
Work Based Learning (4)
THD- must earn 6 dual credits

TRACTOR TRAILER OPERATIONS

Introduction to Transportation (2)
*Automotive Service Technology I (4)
*&Automotive Service Technology II (6)
THD-must earn 6 dual credits or ASE certification

COURSE DESCRIPTIONS

(CTE = Career Technical Education)

CTE: ADVANCED MANUFACTURING

[Return to table of contents](#)

5608 ADVANCED MANUFACTURING I

(10-12) (2 semester course for 2 credits)

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.

5606 ADVANCED MANUFACTURING II

(11-12) (2 semester course for 2 credits)

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.

5686 INDUSTRIAL TECHNICAL MAINTENANCE I, II (Tell City Ivy Tech) (11-12) (2 sem course for 4 credits)

Industrial Technical Maintenance I includes classroom and practical experiences that prepare students to apply technical knowledge and skills to repair and maintain industrial machinery and equipment. Instructional activities develop diagnostic and problem-solving skills related to electric circuits, wiring, motors, robotics, hydraulics, and pneumatics. Additional areas of instruction should include plumbing, rigging, basic machining, welding and cutting. *These courses may be taken for dual credit through Ivy Tech.* This class is taught at Tell City in the morning. A funding agreement with North Spencer and Ivy Tech allows the courses to be taken for partial cost to the student. Ask a counselor for details.

5610 INDUSTRIAL AUTOMATION AND ROBOTICS (VUJC)

(11-12)(2 sem course for 6 credits)

Students will attend VUJ 3 days per week and a paid internship 2 days per week. The classroom experience will focus on an introduction to manufacturing, Industrial Maintenance, Fluid Powers and Pneumatics, Industrial Automation, and Robotics.

5612 INDUSTRIAL AUTOMATION AND ROBOTICS II (VUJC)

(12)(2 sem course for 6 credits)

Students will attend VUJ 3 days per week and a paid internship 2 days per week. The classroom experience will focus on the theory and application of basic electronic components used in AC, DC and digital electronic circuits. Topics will include circuit analysis, measurements, and troubleshooting. Students will also learn the operation and programming of a programmable logic controller (PLC). Laboratory experiences include creating ladder logic programs and using them to troubleshoot automation equipment.

5776 WELDING TECHNOLOGY I (Tell City Ivy Tech)

(11-12) (2 semester course for 2 credits)

5778 WELDING TECHNOLOGY II (Tell City Ivy Tech)

(12) (2 semester course for 2 credits)

Welding Technology includes classroom and laboratory experiences that develop a variety of skills detailed in American Welding Society (AWS) Entry Level Guidelines and Certifications. Areas of study include electric welding and flame and plasma cutting. Instructional activities emphasize properties of metals, safety issues, blueprint reading, electrical principles, welding symbols, and mechanical drawing through projects and exercises that teach students how to weld industrial metals in four basic welding positions. Reinforcement of mathematical skills in geometry, precision measurement, and estimation will be part of the daily instruction. Understanding the principles of metallurgy, gases, and materials science is integral to this course. Students may demonstrate proficiency and earn certification(s) through AWS. *This course may be taken for dual credit through Ivy Tech.* This class is taught at Tell City in the evening. A funding agreement with North Spencer and Tell City allows this course to be taken for partial cost to the student. Ask a counselor for details.

CTE: AGRICULTURE

The National FFA Organization

[Return to table of contents](#)

The FFA student leadership organization is an integral part of a total agricultural education program. The many activities of the FFA parallel the methodology of the instructional program and are directly related to the occupational goals and objectives. District and

state level FFA activities provide opportunities for students to demonstrate proficiency in the knowledge, skills and aptitudes acquired through the agriculture program. Agriculture students demonstrating a high degree of competence in state level FFA activities are highly encouraged to represent their local communities, districts and state by participating in national FFA activities. Instructional activities of the FFA require participation by the agriculture students as an integral part of an agricultural education course of instruction and, therefore, may be considered an appropriate use and amount of the allotted instructional time.

5056 INTRO. TO AGRICULTURE, FOOD & NATURAL RESOURCES (9-10) (2 semester course for 2 credits)
Introduction to Agriculture, Food and Natural Resources is highly recommended as a prerequisite to and a foundation for all other agricultural classes. The nature of this course is to provide students with an introduction to the fundamentals of agricultural science and business. Topics to be covered include: animal science, plant and soil science, food science, horticultural science, agricultural business management, landscape management, natural resources, agriculture power, structure and technology, leadership development, supervised agricultural experience and career opportunities in the area of agriculture, food and natural resources.

5072 ADVANCED LIFE SCIENCE: FOODS (Core 40 Science) (QR Course) (10-12) (2 semester course for 2 credits)
Advanced Life Science: Foods is a course that provides students with opportunities to participate in a variety of activities including food labs. This is a standards-based, interdisciplinary science course that integrates biology, chemistry, and microbiology in the context of foods, the global food industry, the composition of foods, the nutrition of foods, food and food product development, food processing, food safety and sanitation, food packaging, and food storage. Students enrolled in this course formulate, design, and carry out food-base laboratory and field investigations as an essential course component.

5008 ANIMAL SCIENCE (10-12) (2 semester course for 2 credits)
In this course, students participate in a large variety of activities and lab work including real and simulated animal science experiences and projects. Areas of study may be applied to both large and small animals. Topics to be addressed include: body systems, anatomy and physiology, genetics, reproduction and biotechnology, nutrition, aquaculture, careers in animal science, animal health, environmental requirements, and management practices for the care and maintenance of animals. *This course may be taken for dual credit through Ivy Tech, Animal Science/AGRI 103.*

5002 AGRIBUSINESS MANAGEMENT (QR Course) (11-12) (2 semester course for 2 credits)
This course presents the concepts necessary for managing a business. Concepts covered in the course include: exploring careers in agribusiness, global visioning, applying E-commerce, risk management, understanding business management and structures, entrepreneurship, the planning, organizing, financing, and operation of an agribusiness, economic principles, credit, computerized record keeping, budgeting, fundamentals of cash flow, federal, state, property and sales tax, insurance, cooperatives, purchasing, the utilization of information technology in agribusiness, marketing agricultural products, developing a marketing plan, advertising and selling products and services, understanding consumers and buying trends, agricultural law applications and employability skills. *This course may be taken for dual credit through Vincennes University.*

5088 POWER, STRUCTURE AND TECHNOLOGY I and II (11-12) (2-4 sem course for 2-4 credits)
Agriculture Power, Structure and Technology is a lab intensive course in which students develop an understanding of basic principles of selection, operation, maintenance and management of agricultural equipment while incorporating technology. Topics covered include: safety, electricity, plumbing, concrete, carpentry, metal technology, engines, emerging technologies, leadership development, supervised agricultural experience and career opportunities in the area of agriculture power, structure and technology. *This course may be taken for dual credit through Ivy Tech, Agricultural Mechanization/AGRI 106.*

5228 SUPERVISED AGRICULTURAL EXPERIENCE (9-12) (summer course for 1-3 credits)
Supervised Agricultural Experience (SAE) is designed to provide students with opportunities to gain experience in the agriculture field(s) in which they are interested. Students should experience and apply what is learned in the classroom, laboratory, and training site to real-life situations. Students work closely with the teacher, parents, and/or employers to get the most out of their SAE program. This course is taken during the summer. See the Agriculture instructor for more information.

CTE: ARCHITECTURE AND CONSTRUCTION

[Return to table of contents](#)

4792 INTRODUCTION TO CONSTRUCTION (10-12) (2 semester course for 2 credits)
This course offers hands-on activities and real world experiences related to the skills essential in residential, commercial and civil building construction. The student will 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, drywalling, 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.

5580 CONSTRUCTION TRADES I (Tell City HS or VUJC) (11-12) (2 semester course for 6 credits)

Description: This course offers hands-on activities and real world experiences related to the skills essential in residential, commercial and civil building construction. 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.

5578 CONSTRUCTION TRADES II (Tell City HS) (12) (2 semester course for 6 credits)

Construction Trades II builds on the formation, installation, maintenance, and repair skills learned in Construction Trades I. Students will develop basic knowledge, skills, and awareness of interior trim and the installation of drywall, moldings, interior doors, kitchen cabinets, and baseboard moldings. Students will also develop exterior finishing competencies. The course includes instruction on the installation of cornices, windows, doors and various types of sidings currently used in industry. Studies will also focus on the design and construction of roof systems and the use of framing squares for traditional rafter and truss roofing.

CTE: ARTS, AV TECH, AND COMMUNICATION

[Return to table of contents](#)

5986 RADIO AND TELEVISION I (Tell City) (12) (2 period, 2 sem course for 4 cr)

Radio and Television I is a two period class (periods 1-2) that focuses on communication, media and production. Emphasis is placed on career opportunities, production, programming, promotion, sales, performance, and equipment operation. Students will also study the history of communication systems as well as communication ethics and law. Students will develop oral and written communication skills, acquire software and equipment operating abilities, and integrate teamwork skills. Instructional strategies may include a hands-on school-based enterprise, real and/or simulated occupational experiences, job shadowing, field trips, and internships.

CTE: BUSINESS AND MARKETING

Business Professionals of America (BPA)

[Return to table of contents](#)

BPA is a co-curricular student organization conducted on regional, state, and national levels and tests competency in various areas of business/office occupations. The words "Business," "Professionals," and "America" define the focus of BPA. Business: The field for which we prepare our students; emphasizes that we educate our students to work efficiently, not only in an office setting, but also in a wide variety of business situations. Professionals: Our students indicate they join BPA to take advantage of a wide variety of professional development opportunities. America: Symbolizes pride in our country and its free enterprise business system. The Special Recognition Awards Program and the Torch Awards Program are open to participation by all chapters and recognizes outstanding, actively involved members on the local, regional, state, and national levels.

5394 PREPARING FOR COLLEGE AND CAREERS (9-12) (1 semester course for 1 credit)

This course 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 College and Career Pathways, in-depth investigation of one or more pathways, reviewing graduation plans, developing career plans, and developing personal and career portfolios. The class has a project based approach, including computer and technology applications, public speaking, interview application, cooperative ventures between school and community, simulations, and real life experiences. *This course is a graduation requirement.*

4518 INTRODUCTION TO BUSINESS (9-12) (1 semester course for 1 credit)

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.

4562 PRINCIPLES OF BUSINESS MANAGEMENT (10-12) (2 semester course for 2 credits)

This class focuses on the roles and responsibilities of managers as well as opportunities and challenges of ethically managing a business in the free enterprise system. Students will attain an understanding of management, team building, leadership, problem solving steps and processes that contribute to the achievement of organizational goals. The management of human and financial resources is emphasized.

4524 INTRODUCTION TO ACCOUNTING (QR course) (10-12) (2 semester course for 2 credits)

If you are going to have any career related to business or own a business, Accounting is a must! Accounting provides basic instructions for the mechanics of keeping accurate financial records, both in business and personal use. It moves from simple concepts and procedures of accounting that every student must understand to have a maximum opportunity when entering the world of business. Practice sets and problems provide an opportunity for students to apply the skills learned. Accounting is required for college business sequence as it provides terminology and procedures basic in understanding the business system. Work will be done with on-line accounting software. Computerized accounting will be introduced using accounting software from South-Western.

5268 ADMINISTRATIVE AND OFFICE MANAGEMENT (11-12) (2 sem course for 2 credits)

You must take Principles of Business Management or Principles of Marketing before taking this course. If you like to plan, organize, direct, and control the functions and processes of an organization and work with Microsoft Office, then this class is for you! Students are provided opportunities to develop attitudes and apply skills and knowledge in the areas of business administration, management, and finance. Students will complete projects for teachers and others in the community. It is co-curricular with BPA.

4512 BUSINESS MATH (QR course) (11-12) (2 semester course for 2 credits)

This class explores math skills needed for students to function in today's personal/business worlds by covering the following topics: figuring gross and net pay, banking services, loans and credit cards, spending wisely, owning a home or car, insurance and investments, personal taxes, and managing people and inventory. Dave Ramsey's *Foundations in Personal Finance* is an integral part of this course. The course is designed to prepare students for roles as entrepreneurs, producers, and business leaders by developing abilities and skills that are part of any business environment. This course counts for 2 math credits towards the General Diploma.

CTE: EDUCATION AND TRAINING

[Return to table of contents](#)

5408 EDUCATION PROFESSIONS (11-12) (2 period, 2 sem course for 4 credits)

This is a two period class that provides the foundation for employment in education and related careers and prepares students for study in higher education. An active learning approach that utilizes higher order thinking, communication, leadership, and management processes is recommended in order to integrate suggested topics into the study of education and related careers. The course of study includes, but is not limited to: the teaching profession, the learner and the learning process, planning instruction, learning environment, and instructional and assessment strategies. Exploratory field experiences in classroom settings and career portfolios are required components. A standards-based plan guides the students' field experiences. Students are monitored by the teacher.

CTE: HEALTH SCIENCES

[Return to table of contents](#)

5218 PRINCIPLES OF BIOMEDICAL SCIENCES (9-12) (2 semester course for 2 credits)

Prerequisite: Biology I or concurrent enrollment in Biology I is required. This *Project Lead The Way* course provides an introduction to this field through "hands-on" projects and problems. Student work involves the study of human medicine, research processes and an introduction to bioinformatics. Students investigate the human body systems and various health conditions including heart disease, diabetes, hypercholesterolemia, and infectious diseases. A theme through the course is to determine the factors that led to the death of a fictional person. After determining the factors responsible for the death, the students investigate lifestyle choices and medical treatments that might have prolonged the person's life. Key biological concepts included in the curriculum are: homeostasis, metabolism, inheritance of traits, feedback systems, and defense against disease. Engineering principles such as the design process, feedback loops, fluid dynamics, and the relationship of structure to function will be included where appropriate. The course is

designed to provide an overview of all courses in the Biomedical Sciences program and to lay the scientific foundation necessary for student success in the subsequent courses. *This course may be taken for dual credit through IUPUI. See teacher for more information.*

5216 HUMAN BODY SYSTEMS

(10-12) (2 semester course for 2 credits)

Prerequisite: Principles of Biomedical Sciences. This course is designed to engage students in the study of basic human physiology and the care and maintenance required to support the complex systems. Using a focus on human health, students will employ a variety of monitors to examine body systems (respiratory, circulatory, and nervous) at rest and under stress, and observe the interactions between the various body systems. Students will use appropriate software to design and build systems to monitor body functions. *This course may be taken for dual credit through IUPUI. See teacher for more information.*

5217 MEDICAL INTERVENTIONS

(11-12) (2 semester course for 2 credits)

Prerequisite: Principles of Biomedical Sciences and Human Body Systems or Anatomy and Physiology

Medical Intervention is a course that studies medical practices including interventions to support humans in treating disease and maintaining health. Using a project-based learning approach, students will investigate various medical interventions that extend and improve the quality of life, including gene therapy, pharmacology, surgery, prosthetics, rehabilitation, and supportive care. Students will also study the design and development of various interventions including vascular stents, cochlear implants, and prosthetic limbs. Lessons will cover the history of organ transplants and gene therapy with additional readings from current scientific literature, addressing cutting edge developments. Using 3-D imaging software, students will design and build a model of a therapeutic protein. *This course may be taken for dual credit through IUPUI. See teacher for more information.*

5276 ANATOMY AND PHYSIOLOGY

(11-12) (2 semester course for 2 credits)

Prerequisite: Biology I and Chemistry I. In this course, students investigate and apply concepts associated with human anatomy and physiology. Concepts covered include the process of homeostasis and the essentials of human function at the level of genes, cells, tissues, and organ systems. Students will understand the structure, organization, and function of the various components of the healthy human body in order to apply this knowledge in all health-related fields. The course includes ample laboratory experiences that illustrate the application of the standards to the appropriate cells, tissues, organs, and organ systems. Dissection is both appropriate and necessary. Students should be able to use basic laboratory equipment such as microscopes, balances, and pipettes. VU Project Excel Dual Credit BIOL 111, and BIOL 111L, 4 total dual credits.

5282 HEALTH SCIENCE EDUCATION I (Tell City)

(12) (3rd per, 1 sem course for 2 credits)

Location: Tell City High School

Class time: 9:45am - 10:30am

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

Dual Credit: Ivy Tech, HLHS 100, Introduction to Health Careers, 3 Credit Hours

Prerequisites/Requirements for application: None

5284 HEALTH SCIENCE EDUCATION 2: Nursing (HOSA) (Tell City)

(12) (1st-2nd per, 2 sem course for 4 credits)

Location: Tell City High School

Class time: 8:00am - 9:40am (changes to 7:45am - 9:25am second semester), 1:30pm - 3:05pm

The certified nurse aide (CNA) program at Tell City High School has a partnership with Perry County Memorial Hospital and Oakwood Health Campus in Tell City. This is a two semester class with built-in clinical rotation. A minimum of 30 hours in the classroom and 75 hours in clinical setting must be done in this time. After these requirements have been fulfilled with a passing grade both semesters, students will have the opportunity to set for the exam, becoming a certified nursing assistant, authorizing a student to work in this capacity in a healthcare facility. Becoming a CNA will provide great working experience for students desiring to pursue a career in healthcare and/or nursing.

Dual Credit: Ivy Tech, HLHS 107, 3 Credit Hours and Health Science Education 2, 5 Credit Hours

Prerequisites/Requirements for application: Health Science 1, Biology 1, and (recommended) PLTW: PBS

3090 ANATOMY AND PHYSIOLOGY II**(12) (2 semester course for 2 credits)**

This course covers the following aspects of human anatomy and physiology: review of body systems and body terminology followed by blood; cardiovascular system; respiratory system; digestive system; urinary system; endocrine system; male and female reproductive systems; and basic embryology. VU Project Excel Dual Credit BIOL 112, and BIOL 112 L, 4 total dual credits.

5219 BIOMEDICAL INNOVATION (Project Lead the Way)**(12) (2 semester course for 2 credits)**

Prerequisite: Principles of Biomedical Sciences, Human Body Systems or Anatomy and Physiology and Medical Interventions. PLTW Biomedical Innovation is a capstone course designed to give students the opportunity to design innovative solutions for the health challenges of the 21st century as they work through progressively challenging open ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering, and public health. They have the opportunity to work on an independent project and may work with a mentor or advisor from a university, hospital, physician's office, or industry. Throughout the course, students are expected to present their work to an adult audience that may include the local business and healthcare community.

CTE: HOSPITALITY AND HUMAN SERVICES

[Return to table of contents](#)

5440 CULINARY ARTS AND HOSPITALITY I (Tell City HS)**(12) (2 period, 2 sem course for 4 credits)**

This is a two period class (periods 1-2) taught at Tell City HS. Culinary Arts and Hospitality Management prepares students for occupations and higher education programs of study related to the entire spectrum of careers in the hospitality industry. This course builds a foundation that prepares students to enter the Advanced Culinary Arts or Advanced Hospitality courses. Major topics include: introduction to the hospitality industry; food safety and personal hygiene; sanitation and safety; regulations, procedures, and emergencies; basic culinary skills; culinary math; and food preparation techniques and applications. Instruction and laboratory experiences will allow students to apply principles of purchasing, storage, preparation, and service of food and food products; apply basic principles of sanitation and safety in order to maintain safe and healthy food service and hospitality environments; use and maintain related tools and equipment; and apply management principles in food service or hospitality operations. Intensive laboratory experiences with commercial applications are a required component of this course of study. Student laboratory experiences may be either school-based or "on-the-job" or a combination of the two. Work-based experiences in the food industry are strongly encouraged. A standards-based plan guides the students' laboratory experiences. Students are monitored in their laboratory experiences by the Culinary Arts teacher. Dual Credit: Ivy Tech Hosp 101 and 102

CTE: INFORMATION TECHNOLOGY

[Return to table of contents](#)

4801 COMPUTER SCIENCE I**(10-12) (2 semester course for 2 credits)**

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

5236 COMPUTER SCIENCE II**(11-12) (2 semester course for 2 credits)**

Prerequisite: Computer Science I. Computer Science II explores and builds skills in programming and a basic understanding of the fundamentals of procedural program development using structured, modular concepts. 67 Indiana Department of Education High School Course Titles and Descriptions Coursework emphasizes logical program design involving user-defined functions and standard structure elements. Discussions will include the role of data types, variables, structures, addressable memory locations, arrays and pointers, and data file access methods. An emphasis on logical program design using a modular approach, which involves task-oriented program functions.

5230 INFORMATION TECHNOLOGY SUPPORT I (VUJC)**(11-12) (2 semester course for 6 credits)**

Students will learn how to support and maintain many different technology devices and prepare students for a computer certification that will benefit them in multiple career choices. Technology is a part of our lives, and is embedded in almost every career path. This class will prepare students to be comfortable addressing technology issues that might arise in everyday use of technology. The

students leave this course able to troubleshoot general technology issues and resolve many of those issues. Hands on activities, such as building computers, repairing printers, soldering, and using numerous testing tools, gives the students real experiences to carry them into future careers. *Dual Credit: VU CMET 140 (3 credits) and CMET 185(2 credits) - CompTIA A+ Certification may be attained; fee associated for the certification.*

5231 INFORMATION TECHNOLOGY SUPPORT II (VUJC) (11-12) (2 semester course for 6 credits)
Students will be placed at a business in the Information Technology department utilizing skills developed in IT Support 1.

CTE: PUBLIC SAFETY

[Return to table of contents](#)

5822 CRIMINAL JUSTICE I (11-12) (2 semester course for 2 credits)
Criminal Justice I provides an introduction to the three primary parts of the criminal justice system and investigative process. Activities include crime prevention efforts and the preparation of police reports. This course provides the opportunity for students to hear from speakers in the field, tour judicial facilities and practice skills performed police.

5210 EMERGENCY MEDICAL SERVICES/EMT (12) (2 semester course for 6 credits)
This course is designed for individuals desiring to perform emergency medical care. Students will learn to recognize the seriousness of the patient's condition, use the appropriate emergency care techniques and equipment to stabilize the patient, and transport to the hospital. Students meeting appropriate standards will be eligible for certified by the National Registry of EMTs and the State of Indiana as Emergency Medical Technicians. This class also provides an opportunity for a great variety of experiences into the healthcare world. There is classroom, skills lab, computer lab and a clinical component required. *This course may be taken for dual credit for 6 college credits, Emergency Medical Technician, EMTB 212.*

CTE: STEM - ENGINEERING

[Return to table of contents](#)

4802 INTRODUCTION TO ENGINEERING DESIGN (9-12) (2 semester course for 2 credits)
This is an introductory course which develops problem solving skills with emphasis placed on the development of three-dimensional solid models. Students will work from sketching simple geometric shapes to applying a solid modeling computer software package. They will learn a problem solving design process and how it is used in industry to manufacture a product. The Computer Aided Design System (CAD) will also be used to analyze and evaluate the product design. The techniques learned, and equipment used, is state of the art and is currently being used by engineers throughout the United States. *This course may be taken for six dual credit through Ivy Tech, Intro to Design Technology/DESN 101 and 2D Computer Aided Design/DESN 113.*

5644 PRINCIPLES OF ENGINEERING (10, 11, 12) (2 semester course for 2 credits)
Prerequisite: IED. Principles of Engineering is a course that focuses on the process of applying engineering, technological, scientific and mathematical principles in the design, production, and operation of products, structures, and systems. This is a hands-on course designed to provide students interested in engineering careers to explore experiences related to specialized fields such as civil, mechanical, and materials engineering. Students will engage in research, development, planning, design, production, and project management to simulate a career in engineering. The topics of ethics and the impacts of engineering decisions are also addressed. Classroom activities are organized to allow students to work in teams and use modern technological processes, computers, CAD software, and production systems in developing and presenting solutions to engineering problems.

5534 COMPUTER INTEGRATED MANUFACTURING (QR course) (12) (2 semester course for 2 credits)
(School Years 20-21 and 21-22)
Computer Integrated Manufacturing is a course that applies principles of rapid prototyping, robotics, and automation. This course builds upon the computer solid modeling skills developed in Introduction of Engineering Design. Students will use computer controlled rapid prototyping and CNC equipment to solve problems by constructing actual models of their three-dimensional designs. Students will also be introduced to the fundamentals of robotics and how this equipment is used in an automated manufacturing environment. Students will evaluate their design solutions using various techniques of 145 Indiana Department of Education High School Course Titles and Descriptions analysis and make appropriate modifications before producing their prototypes.

5650 CIVIL ENGINEERING AND ARCHITECTURE (QR course) (12) (2 semester course for 2 credits)
(School year 22-23 and beyond)

Prerequisite: IED. This course 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 is placed on related transportation, water resource, and environmental issues. Activities include the preparation of cost estimates as well as a review of regulatory procedures that would affect the project design. *This course may be taken for dual credit through Ivy Tech, Architectural Design/DESN 105, if dual credit was taken for IED.*

CTE: TRANSPORTATION

[Return to table of contents](#)

4798 INTRODUCTION TO TRANSPORTATION	(10-11) (1 period, 2 sem course for 2 cr)
5510 AUTOMOTIVE SERVICE TECHNOLOGY I	(11) (2 period, 2 sem course for 4 cr)
5546 AUTOMOTIVE SERVICE TECHNOLOGY II	(12) (3 period, 2 sem course for 6 cr)

The purpose of this sequence of courses is to provide students with a core curriculum to enable them to obtain the knowledge and skills to become technicians in the automotive industry. Having gained these basic competencies, the future technician will study five or more of the eight Automotive Service Excellence or A.S.E. areas: Brakes, Electrical/Electronic Systems, Engine Performance, Suspension and Steering, Engine Repair, Automatic Transmission and Transaxle, Heating and Air Conditioning, and Manual and DriveTrain and Axles. Emphasis will be on preparing the students for the technician certification through A.S.E. testing. Included will be both classroom and hands-on job tasks. *This class may be taken for dual credit through Ivy Tech, AUTI 100, AUTI 121, AUTI 122, AUTI 131, AUTI 141 or University of Northwestern Ohio, AU 126, AU 127.*

5528 AVIATION OPERATIONS (Huntingburg Airport)	(12) (2 semester course for 6 credits)
---	---

Aviation Operations provides students with a broad-based introduction to the field of aviation. Course activities include: familiarization with aviation technology; a historic overview of the field of aviation; exploration of the current aviation environment and careers and employment opportunities in the field. Topics are focused on aircraft manufacturing, airline operations, general aviation, air-freight, airport management, and government service. Additional topics covered include: aviation safety, human factors, regulations, and certification. This course is designed to enhance the students' knowledge of the pertinent areas of aircraft basic science that comprise the scientific fundamentals applied in all areas of the aviation industry. The fundamental areas of the federal aviation regulations, pertinent to aviation operations, are also introduced in this course.

MULTIDISCIPLINARY

[Return to table of contents](#)

0520 PEER TUTORING	(11-12) (1 or 2 semester course)
---------------------------	---

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

5974 CTE: WORK BASED LEARNING CAPSTONE	(12)(2-3 period, 2 sem course for 4-6 credits)
---	---

Prerequisite: Complete at least one advanced career and technical education course from a program or program of study. Student's worksite placement must align to the student pathway.

Work-based Learning Capstone is a stand-alone course that prepares students for college and career. Work-Based Learning means sustained interactions with industry or community professionals in real workplace settings, to the extent practicable, or simulated environments at an educational institution that foster in-depth, first hand engagement with the tasks required of a given career field, that are aligned to curriculum and instruction. Work-based Learning Capstone experiences occur in workplaces and involve an employer assigning a student meaningful job tasks to develop his or her skills, knowledge, and readiness for work. A clear partnership agreement and training plan is developed by the student, teacher, and workplace mentor/supervisor to guide the student's work-based experiences and assist in evaluating achievement and performance. Related Instruction, shall be organized and planned around the activities associated with the student's individual job and career objectives in a pathway; and shall be taught during the same semester the student is participating in the work-based experience. For a student to become employable, the related instruction should cover: (a) employability skills, and (b) specific occupational competencies. A minimum of 85 hours of workplace and classroom activities are

required for one credit; 170 hours are required for the two credits, and 255 hours are required for three credits. Of the total hours, 18 to 36 hours (at least 1 hour a week or the equivalent over a semester or year) must be spent in related classroom instruction.

0530 CAREER EXPLORATION INTERNSHIP---check description when we decide what course title this is.

Prerequisite: none

The Career Exploration Internship course is a paid or unpaid work experience in the public or private sector that provides for workplace learning in an area of student career interests. Unlike the work-based Learning capstone course in which students gain expertise in a specific occupation, the career exploration internship is intended to expose students to broad aspects of a particular industry or career cluster area by rotating through a variety of work sites or departments. In addition to their workplace learning activities, students participate in 1) regularly scheduled meetings with their classroom teacher, or 2) a regularly scheduled seminar with the teacher for the purpose of helping students make the connection between academic learning and their work-related experiences. Specific instructional standards tied to the career cluster or pathway and learning objectives for the internship must be written to clarify the expectations of all parties – the student, parent, employer, and instructor. A minimum of 85 hours of workplace and classroom activities are required for one credit; 170 hours are required for the two credits, and 255 hours are required for three credits. Of the total hours, 18 to 36 hours (at least 1 hour a week or the equivalent over a semester or year) must be spent in related classroom instruction.

ENGLISH / LANGUAGE ARTS

[Return to table of contents](#)

*Eighth grade students are recommended for English 9, English 9 Adv. or English 9 Honors. Criteria used for recommending for high school English are middle school ISTEP and ACHIEVE scores, middle school English grades and, motivation for work outside of school. In general, students continue through this level of English throughout high school. A student may request or be recommended by a teacher to adjust the English level. **Note: AP and Honors English classes are rigorous, college preparatory courses. The successful student will have a command of grammar, have strong writing and reading skills and have the work ethic required for independent work. Summer reading is required for AP English courses. It is assigned at the end each school year and is counted for a grade the first day of the fall semester.***

10021 ENGLISH 9

(9-12) (2 semester course for 2 credits)

English 9 provides students with the opportunity to improve and expand their skills in grammar, usage, vocabulary, composition, literature, critical thinking, and communication. Students will explore the writing process and hone their ability to develop an idea and communicate it effectively. Students will discover global perspectives and encounter multiple points of view by analyzing and evaluating a variety of nonfiction and literary texts. This class will also introduce students to the rigors of high school curricula by focusing on the reading comprehension, academic writing, and study skills students will utilize throughout their academic career. English 9 is designed for students who would benefit from a modified curriculum. The content follows the Indiana English 9 Standards, but the instruction and materials have been adapted to meet the needs of these students.

10022 ENGLISH 9 ADVANCED

(9-12) (2 semester course for 2 credits)

English 9 Adv. helps students improve and expand their skills in grammar, usage, vocabulary, composition, literature, critical thinking, and communication. Students will explore the writing process and hone their ability to develop an idea and communicate it effectively. Students will discover global perspectives and encounter multiple points of view by analyzing and evaluating a variety of nonfiction and literary texts. This class will also introduce students to the rigors of high school curricula by focusing on the reading comprehension, academic writing with research, and study skills students will utilize throughout their academic career.

10023 ENGLISH 9 HONORS

(9) (2 semester course for 2 credits)

The content of English 9 Honors is the same as English 9 Advanced, however English 9 Honors is the most rigorous and challenging course in the freshman English curriculum. It is designed for students who are competent writers and responsible workers. Critical reading, extensive writing and further development of vocabulary and communication skills are expected of the students. Success in this course will require strong study skills and a high level of self-motivation.

10041 ENGLISH 10

(10-12) (2 semester course for 2 credits)

English 10 builds on the skills students developed during English 9. Grammar, usage, vocabulary, composition, critical thinking, and communication skills, as well as use of the writing process, will continue to be studied. Literature will include a variety of texts, including fiction, nonfiction, and drama. This class will focus on increasing student efficacy in reading comprehension, academic writing, and study skills.

10042 ENGLISH 10 ADVANCED

(10-12) (2 semester course for 2 credits)

English 10 Adv. builds on the skills of grammar, usage, vocabulary, composition, critical thinking, and communication skills, as well as use of the writing process, will continue to be studied. Literature will include a variety of texts, including fiction, nonfiction, and drama. This class will focus on increasing student efficacy in reading comprehension, academic writing, and study skills.

10043 ENGLISH 10 HONORS (10) (2 semester course for 2 credits)

The content of English 10 Honors is the same as English 10 Advanced, however English 10 Honors is the most rigorous and challenging course in the sophomore English curriculum. It is designed for students who are competent writers and responsible workers. Critical reading, extensive writing and further development of vocabulary and communication skills are expected of the students. Success in this course will require strong study skills and a high level of motivation.

10061 ENGLISH 11 (11-12) (2 semester course for 2 credits)

English 11 will be a combination of vocabulary, grammar, composition, and literature. The vocabulary section will incorporate techniques for systematic vocabulary growth. The grammar emphasis will be on writing complete sentences and subordinate clauses. Essays of narration, exposition, persuasion, description and analysis will be explored. Various genres will be studied in the American literature section: documents, essays, short stories, and poetry. A research paper is required.

1056 ENGLISH LANGUAGE & COMPOSITION, ADVANCED PLACEMENT (11) (2 semester course for 2 credits)

Prerequisite: Recommendation of previous teacher, previously enrolled in honors English courses. This course follows College Board Entrance Examination guidelines. It enables students to read complex texts with understanding and to write prose of sufficient richness and complexity to communicate effectively with mature readers. Through the process of reading, writing, and discussing texts, students will become skilled in composing for different audiences and purposes. Students will learn to understand and appreciate the diverse ways that authors make meaning in both oral and written texts. They will identify literary structures and conventions and effectively use them in their own writing. This is a rigorous, college preparatory course. The successful student needs a command of grammar, writing and reading skills and work ethic required for independent reading. *May be taken for dual credit through USI, Rhetoric & Composition I/ENG 101.*

1030 ENGLISH LITERATURE (12) (1 semester course for 1 credit)

This course is a survey of representative works of the English-speaking authors. Students examine a wide variety of literary genres that reflect the English-speaking people from the Anglo-Saxon Period to the present. Students analyze how the ideas and concepts presented in the works are both interconnected and distinctly reflective of the cultures and the countries in which they were written.

1096 TECHNICAL COMMUNICATIONS (12) (1 semester course for 1 credit)

This is the study and application of the processes and conventions needed for effective technical writing-communication. Using the writing process, students demonstrate a command of vocabulary, English language conventions, research and organizational skills, an awareness of the audience, the purpose for writing, and style. This course does not count for NCAA English requirement.

1078 ADVANCED SPEECH AND COMMUNICATION (12) (1 semester course for 1 credit)

This class is the study and application of skills in listening, oral interpretation, media communications, research methods, and oral debate. Students deliver different types of oral and multimedia presentations, including speeches to inform, to motivate, to entertain, and to persuade through the use of impromptu, extemporaneous, memorized, or manuscript delivery. Students complete a project, such as multimedia presentations that are reflective, reports or historical investigations, responses to literature, or persuasive arguments, which demonstrates knowledge, application, and speaking. *This class may be taken for dual (college) credit through OCU, Fundamentals of Speech/COMM 202.*

1058 ENGLISH LITERATURE & COMPOSITION, ADVANCED PLACEMENT (12) (2 semester course for 2 credits)

Prerequisite: Recommendation of previous teacher, previously enrolled in honors English. This course has a dual focus: preparing for the AP English Lit exam while covering a variety of literary genre. In keeping with the College Board's AP ENGLISH COURSE DESCRIPTION, readings will include essays, novels, speeches, poems, and personal narratives by a diverse group of world authors who were writing for varied purposes and audiences. In reading and analyzing these non-fiction, fiction, and poetry texts, our focus will be on both textual detail and historical context to provide a foundation for interpretation. An emphasis on relevant critical concepts and vocabulary will allow students to exercise these in verbal and written responses, textual analysis, and interpretations.

Writing assignments and projects will be varied and will enable students to develop proficiency in expository, argumentative, and persuasive modes. AP students should have the maturity, the skill, and the will to seek the larger meaning through thoughtful research. This is a rigorous, college preparatory course. The successful student will have a command of grammar, have strong writing and reading skills and have the work ethic required for independent reading. ***Summer reading is required.*** *This course may be taken for dual credit through USI, Introduction to Literature/ENG 105.*

0500 BASIC SKILLS DEVELOPMENT – READING AND WRITING (9-11) (2 semester course for 2-6 cr)

Basic Skills Development is an elective course which provides *students with an IEP* continuing opportunities to develop basic skills including: (1) reading – fluency, vocabulary development, comprehension strategies, (2) writing – development, language conventions, (3) listening, (4) speaking, (5) study and organizational skills, and (8) problem-solving skills that are essential for high school course work achievement. Determination of the skills to be emphasized in this course is based on the Indiana State Academic Standards, and individual student needs. The course will prepare students for success on the English 10 ISTEP.

FINE ARTS

[Return to table of contents](#)

4000 INTRODUCTION TO TWO-DIMENSIONAL ART (L) (9-12) (semester 1 course for 1 credit)

Experiences include contour line drawings, collage design utilizing Adobe Photoshop, and acrylic painting.

4002 INTRODUCTION TO THREE-DIMENSIONAL ART (L) (9-12) (semester 2 course for 1 credit)

Experiences include pottery, clay sculpture, Styrofoam sculpture, word illustration using colored pencil and Adobe PhotoShop, pointillism, and scratchboard.

4004 ADVANCED TWO-DIMENSIONAL ART (L) (10-12) (semester 1 course for 1 credit)

Prerequisite: Introduction to Two-Dimensional Art, Introduction to Three-Dimensional Art

Experiences include shading with pencil (spheres), pencil still-life, spirals, flames and monograms, animal portrait (colored pencil shading), computer graphics Surrealism using Photoshop, and matting and display of artwork.

4006 ADVANCED 3-DIMENSIONAL ART (L) (10-12) (semester 2 course for 1 credit)

Prerequisite: Intro to Two-Dimensional Art, Intro to Three-Dimensional Art, Advanced Two-Dimensional Art

Experiences include landscape painting in acrylic, computer graphics using Photoshop, small paper mache sculpture, and matting and display of artwork.

4060 DRAWING I (11-12) (semester 1 course for 1 credit)

Prerequisite: Introduction to 2-D and 3-D Art, Advanced 2-D and 3-D Art

Experiences include shaded shapes, colored pencil still-life, caricature (Photoshop), colored pencil still-life, colored pencil self-portrait, matting and display of artwork.

4064 PAINTING I (11-12) (semester 2 course for 1 credit)

Prerequisite: Introduction to 2-D and 3-D Art, Advanced 2-D and 3-D Art, Drawing I

Experiences include architectural painting in acrylics, large paper mache' sculpture and a student proposed project.

40642 PAINTING II (12) (semester 1 course for 1 credit)

Prerequisite: Introduction to 2-D and 3-D Art, Advanced 2-D and 3-D Art, Drawing I, Painting I

Experiences include painting without brushes, custom painting (individual project), painting that includes an attachment, still life painting, and mural design and painting.

4044 SCULPTURE (12) (semester 2 course for 1 credit)

Prerequisite: Introduction to 2-D and 3-D Art, Advanced 2-D and 3-D Art, Drawing I, Painting I, Painting II

Experiences include sculpture using non-traditional material, custom sculpture (individual project), and ceiling tile design. Students will create and maintain a digital portfolio.

4168 INTERMEDIATE CONCERT BAND (9-12) (2 sem course for 2 – 8 credits)

Students taking this course are provided with a balanced comprehensive study of music through the concert band, which develops skills in the psychomotor, cognitive, and affective domains. Instruction is designed so that students are enabled to connect, examine, imagine, define, try, extend, refine, and integrate music study into other subject areas. Ensemble and solo activities are designed to develop elements of musicianship including, but not limited to: (1) tone production, (2) technical skills, (3) intonation, (4) music reading skills, (5) listening skills, (6) analyzing music, and (7) studying historically significant styles of literature. Experiences include, but are not limited to, improvising, conducting, playing by ear, and sight-reading. 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. In addition, students perform, with expression and technical accuracy, a large and varied repertoire of concert band literature that is developmentally appropriate. Students must attend summer band camp.

4208 MUSIC THEORY AND COMPOSITION**(9-12) (1 sem course for 1 credit)**

Music Theory and Composition is based on the Indiana Academic Standards for Music and standards for this specific course. Students develop skills in the analysis of music and theoretical concepts. They develop ear training and dictation skills, compose works that illustrate mastered concepts, understand harmonic structures and analysis, understand modes and scales, study a wide variety of musical styles, study traditional and nontraditional music notation and sound sources as tools for musical composition, and receive detailed instruction in other basic elements of music.

4164 JAZZ ENSEMBLE**(9-12) (1 sem course for 1-4 credits)**

Jazz Ensemble is based on the Indiana Academic Standards for High School Instrumental Music. It is open to any student who plays a band instrument, drum set, piano, or guitar (electric or bass). 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. This course can be taken for multiple years.

4242 THEATRE ARTS**(9-12) (2 semester course for 2 credits)****4240 ADVANCED THEATRE ARTS****(10-12) (2 sem course for 2 – 6 credits)**

Theatre is for students who wish to develop acting skills and examine the development of stage character through body, face, and use of props, gestures and other areas of dramatic study. Practical hands-on experiences in acting, directing and stage craft are provided through the preparation and public performances of one or more plays. The introductory course covers the basic elements of theatre: acting, voice, effects, costuming, technical theatre, as well as an introductory unit on the history of performance, while the advanced course gives more emphasis on technique. Students move into a performance mode by completing preliminary work and producing a theatre presentation. Theatre is a performance lab, and participants are required to be actively involved in the Heritage Hills Theatre program. Students generally participate in the first semester play and the second semester musical. The following areas are covered: Using voice and body to communicate a message, staging and blocking, the structure of a theatre, critical viewing of theatre and film, understanding and analyzing plot, atmosphere and mood, theme and moral, understanding character. Also, various elements of technical theatre is covered, such as: designing and applying make-up, designing and evaluating costume choices, the process of producing a play, from script to final performance, using motivation to play a character effectively.

1086 STUDENT MEDIA/YEARBOOK**(11-12) (2 sem course for 2 – 4 credits)**

Yearbook is for the student who has an interest in computer graphic design, taking pictures, being involved in school activities, and writing. Students will learn the elements of journalism, photography, graphic design, advertising and marketing, bookkeeping, and budgeting. Students will also follow the ethical principles and legal boundaries that guide scholastic journalism. Students may enroll both Junior and Senior year. Yearbook counts for the fine arts requirement towards an Academic Honors Diploma.

CHORUS

Chorus provides students with opportunities to develop musicianship and specific performance skills through ensemble and solo singing. Activities create the development of quality repertoire in the diverse styles of choral literature that is appropriate in difficulty and range for the students. Instruction is designed to enable students to connect, examine, imagine, define, try, extend, refine, and integrate music study into other subject areas. A limited number of public performances may serve as a culmination of daily rehearsal and music goals. The four chorus classes at HH are:

4182 BEGINNING CHORUS (Patriot Singers)**(9-12) (2 semester course for 2-8 credits)**

Beginning chorus is a non-auditioned choir for any student grades 9-12. Students need no prior choral experience. Students are required to participate in Fall and Spring choral concerts, Solo and Ensemble competitions, and at graduation. Students may be required to participate in rehearsals and performances outside of the school day that support and extend learning in the classroom.

4186 INTERMEDIATE CHORUS (Patriot Vibe Show Choir)**(9-12) (2 semester course for 2-8 credits)**

Intermediate chorus is an auditioned choir for any student grades 9-12 who have an interest in singing and dancing. No choral experience is required, yet some dance experience is recommended. Students are required to participate in Fall and Spring choral concerts, Solo and Ensemble competitions, and at graduation. Students may be required to participate in rehearsals and performances outside of the school day that support and extend learning in the classroom. **Auditions are held in late spring.**

4184 VOCAL JAZZ I (Girls Chorus)**(9-12) (2 semester course for 2-8 credits)**

Girls chorus is an auditioned choir for any female student grades 9-12. Students are required to participate in Fall and Spring choral concerts, Solo and Ensemble competitions, and at graduation. Students may be required to participate in rehearsals and performances outside of the school day that support and extend learning in the classroom. **Auditions are held in late spring.**

41842 VOCAL JAZZ II (Mixed Chorus)**(9-12) (2 semester course for 2-8 credits)**

Mixed chorus is an auditioned choir for any male or female student grades 10-12. Students are required to participate in Fall and Spring choral concerts, Solo and Ensemble competitions, and at graduation. Students may be required to participate in rehearsals and performances outside of the school day that support and extend learning in the classroom. **Auditions are held in late spring.**

HEALTH, PHYSICAL EDUCATION AND SAFETY

[Return to table of contents](#)

Required: 1 credit in Health, 2 credits in Physical Education. One credit must be taken in the classroom or in the summer PE Program. The second credit may be earned through the classroom, summer PE, Elective Physical Education or by adequate participation in a sport/dance/cheer/band (The Summer PE course has a fee and enrollment deadline. Ask in Guidance).

3542 PHYSICAL EDUCATION I**(9-12) (1 semester course for 1 credit)**

Physical Education I puts an emphasis on health-related fitness and developing the skills and habits necessary for a lifetime of activity. This program includes skill development and the application of rules and strategies of complex difficulty in at least three of the following different movement forms: (1) health-related fitness activities (cardiorespiratory endurance, muscular strength and endurance, flexibility, and body composition), (2) aerobic exercise, (3) team sports, (4) individual and dual sports, (5) outdoor pursuits, (6) aquatics, recreational games. Ongoing assessment includes both written and performance-based skill evaluations. Classes are coeducational. Adapted physical education is offered, as needed, in the least restrictive environment and is based on individual assessment. *All students will participate in both gym PE and pool PE unless a doctor's excuse is on file.*

3560 ELECTIVE/ADVANCED PHYSICAL EDUCATION**(9-12) (1 semester course for 1 credit)**

Prerequisite – Physical Education I. Students will not be permitted to drop after the first week of the course without penalty. 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. It includes the study of physical development concepts and principles of sport and exercise and also 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. This course is offered as a period during the school day or before school (7:00 – 7:55). Zero hour preference will be made for grades 10-12 athletes with no study hall on their schedule.

3506 HEALTH AND WELLNESS EDUCATION**(9-12) (1 semester course for 1 credit)**

Health teaches the student to see good health as a functional matter in his/her life today rather than as a delayed benefit. Healthy living must become a part of the experience of each student. The classroom experiences are designed to help develop self-awareness and value judgments. Activities motivate students in making these concepts a part of their lives. The following content areas are included: growth and development, mental and emotional health, community health, environmental health, nutrition, family life education, personal health, alcohol and other drugs, intentional and unintentional injury, and health promotion.

3500 ADVANCED HEALTH**(9-12) (1 semester course for 1 credit)**

Students must complete health before enrolling in this course. This course provides advanced knowledge and skills to help students adopt and maintain healthy behaviors. Through a variety of instructional strategies, students practice the development of functional advanced health information (essential concepts); determine personal values that support healthy behaviors; develop group norms that value a healthy lifestyle; and develop the essential skills necessary to adopt, practice, and maintain health-enhancing behaviors. Advanced Health & Wellness provides students with an in-depth study of promoting personal health and wellness; promoting mental and emotional health; and promoting human development and family health. The scientific components of health and wellness, health issues and concerns, health risk appraisals, individual wellness plans, health promotion and health careers are expanded and explored within the context of the course.

MATH SEQUENCE GUIDELINES (PER TEACHER RECOMMENDATIONS, AS NEEDED)

*If fail Algebra I/Algebra I Lab, retake Algebra I

*If below average grades in Algebra I Lab, take Math 10.

*Note: For a student to take both Algebra II Honors and Geometry Honors during the same year, he/she should have earned an A- or better in Algebra I or have teacher referral. These students should have the intention of taking higher level math their senior year.

2520 ALGEBRA I (9-12) (2 semester course for 2 credits)

Algebra I provides a formal development of the algebraic skills and concepts necessary for students who will take other advanced college-preparatory courses. In particular, the instructional program in this course provides for the use of algebraic skills in a wide range of problem-solving situations. Topics include all state standards, some of which are: (1) operations with real numbers, (2) solving and graphing linear equations and inequalities, and absolute value equations, (3) relations and functions, (4) solving and graphing systems of linear equations and inequalities, (5) operations with polynomials and algebraic fractions, (6) solving and graphing quadratic, cubic and radical equations, and (7) data analysis and statistics. A scientific calculator may be used often as well as the classroom set of graphic calculators.

2516 ALGEBRA I LAB (9-10) (2 semester course for 2 credits)

Algebra I Lab is a support course for *Algebra I*. The course provides students with additional time to build the foundations necessary for high school math courses, while concurrently having access to rigorous, grade-level appropriate courses. The five critical areas of *Algebra 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. Students taking Algebra Lab must also be enrolled in Algebra I during the same academic year.

2531 MATH 10 (10-11) (2 semester course for 2 credits)

Math 10 is a course designed to reinforce and elevate the Algebra 1 and 7th and 8th grade geometry knowledge and skills necessary for students to successfully complete high school mathematics courses beyond Algebra 1 and essentials for passing the state's graduation qualifying exam in mathematics. Enrollment will be contingent upon recommendation of the Algebra teacher based on diagnostic results of performance in Algebra I and/or mathematics competency assessments. The standards for this course are aligned to the state standards that students need to master for success with the state's graduation qualifying exam in mathematics and the next level math courses.

2522 ALGEBRA II (10-12) (2 semester course for 2 credits)

Prerequisite: Algebra I. This course expands on Algebra I and further develops the concept of a function. Students are required to have a graphing calculator and will: (1) graph relations and functions and find zeros; (2) use function notation and combine functions by compositions; (3) solve systems of linear equations and inequalities to solve word problems; (4) solve quadratic equations, including the use of complex numbers; (5) interpret maximum and minimum values of quadratic functions; (6) solve equations that contain square roots; (7) divide and factor polynomials and solve polynomial equations; (8) use negative fractional exponents; (9) solve problems of direct, inverse, and joint variation; (10) graph exponential functions; (11) solve exponential and logarithmic equations and inequalities; (12) define and use arithmetic and geometric sequences and series; (13) compute combinations, permutations and probabilities; and (14) use problem solving strategies.

25221 ALGEBRA II HONORS (9-12) (2 semester course for 2 credits)

Prerequisite: Algebra I. This course follows the same curriculum as Algebra II. However, Algebra II Honors explores each topic at a deeper level and requires the solution of more difficult problems than what Algebra II requires. Students will use a graphing calculator.

2532 GEOMETRY (10-12) (2 semester course for 2 credits)

Prerequisite: Algebra I and Algebra II. This course provides students with experiences that deepen the understanding of shapes and their properties. Deductive and inductive reasoning as well as investigative strategies in drawing conclusions are stressed. Properties and relationships of geometric figures include the study of: (1) angles, (2) lines, (3) planes, (4) congruent and similar triangles, (5) trigonometric ratios, (6) polygons, and (7) circles and spatial drawings. An understanding of proof and logic is developed. Use of graphing calculators and computer drawing programs is encouraged.

25321 GEOMETRY/HONORS (10-12) (2 semester course for 2 credits)
Prerequisite: Algebra I and Algebra II. In this course, students pursue a deeper study of theorems and postulates relating to two and three-dimensional objects. A greater understanding of logic and its application to proofs and problem solving will be stressed. Properties and relationships of geometric objects will include the study of: (1) angles, lines, and planes; (2) congruent, similar, and right triangles (including trigonometry); (3) polygons; (4) circles; and (5) solids. Technology used will include scientific calculators and Dynamic Geometry Software.

2564/2566 PRE-CALCULUS term 1/TRIGONOMETRY term 2 (11-12) (2 semester course for 2 credits)
Prerequisite: Algebra I, Algebra II/Honors, and Geometry Honors. This course blends together concepts and skills that must be mastered prior to enrollment in a college-level calculus course. Students will: (1) analyze polynomial, rational, exponential, logarithmic and algebraic functions and their graphs; (2) find inverse and transformations of the above functions; (3) define trigonometric functions using the unit circle with degrees and radians; (4) solve problems using trigonometry; (5) prove trigonometric identities; (6) define polar coordinates and complex numbers; (7) define and use arithmetic and geometric sequences and series; (8) model data with linear/nonlinear functions. *May be taken for dual credit through OCU, College Algebra MATH 115.*

4512 BUSINESS MATHEMATICS (QR course) (11-12) (2 semester course for 2 credits)
This class explores math skills needed for students to function in today's personal/business worlds by covering the following topics: figuring gross and net pay, banking services, loans and credit cards, spending wisely, owning a home or car, insurance and investments, personal taxes, and managing people and inventory. Dave Ramsey's *Foundations in Personal Finance* is an integral part of this course. The course is designed to prepare students for roles as entrepreneurs, producers, and business leaders by developing abilities and skills that are part of any business environment. *This course counts for 2 math credits towards the General Diploma.*

2550 QUANTITATIVE REASONING (QR course) (12) (2 semester course for 2 credits)
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. *May be taken for dual (college) credit through USI, Quantitative Reasoning/MATH 123.*

2562 ADVANCED PLACEMENT CALCULUS AB (12) (2 semester course for 2 credits)
Prerequisite: Pre-Calculus. This course is equivalent to a typical one semester Calculus course on a college campus. A student may earn college credit for Calculus I or an equivalent mathematics course if they achieve a passing score on the end of course assessment. The content of this course has been established by the College Board. Topics in this course include: Limits, Derivatives, Applications of Derivatives, Integrals, and Applications of Integrals.

2562 ADVANCED PLACEMENT CALCULUS BC (12) (2 semester course for 2 credits)
Prerequisite: Pre-Calculus and Trigonometry with an A/A- and/or teacher recommendation. AP Calculus BC is an extension of AP Calculus AB: the difference between them is scope, not level of difficulty. AP Calculus AB includes techniques and applications of the derivative, definite integral, and the Fundamental Theorem of Calculus. It also includes parametric, polar, and vector functions, and series. This course is equivalent to two semesters of Calculus on a college campus. A student may earn college credit (Calculus I and/or Calculus I and Calculus II or equivalent mathematics courses) if they achieve a passing score on the end of course assessment. The Calculus AB material covered in this course will be equivalent to the stand alone AB course. Although it will be covered at a faster pace, it will not be covered at a deeper level.

SCIENCE

[Return to table of contents](#)

3024 BIOLOGY I (9-12) (2 semester course for 2 credits)
Biology I provides students with an introduction to biology based on the Indiana Academic Standards. Standard I includes the study of molecules, cells, genetics, evolution, and ecology. Standard II includes the historical perspectives of biology – mainly the contributions of Gregor Mendel and Charles Darwin.

30241 BIOLOGY I HONORS (9-12) (2 semester course for 2 credits)
This course provides students with an introduction to biology based on the Indiana Academic Standards, including the study of molecules, cells, genetics, evolution, zoology, and ecology. Students will investigate biological questions and problems related to societal issues. Also, students will study the historical perspectives of biology with emphasis on career opportunities using biology.

5218 PRINCIPLES OF BIOMEDICAL SCIENCES (PLTW) (9-12) (2 semester course for 2 credits)
Prerequisite: Biology I or concurrent enrollment in Biology I is required. This *Project Lead The Way* course provides an introduction to this field through “hands-on” projects and problems. Student work involves the study of human medicine, research processes and an introduction to bioinformatics. Students investigate the human body systems and various health conditions including heart disease, diabetes, hypercholesterolemia, and infectious diseases. A theme throughout the course is to determine the factors that led to the death of a fictional person. After determining the factors responsible for the death, the students investigate lifestyle choices and medical treatments that might have prolonged the person’s life. Key biological concepts included in the curriculum are: homeostasis, metabolism, inheritance of traits, feedback systems, and defense against disease. Engineering principles such as the design process, feedback loops, fluid dynamics, and the relationship of structure to function will be included where appropriate. *This course may be taken for dual credit through IUPUI. See instructor.*

3108 INTEGRATED CHEMISTRY-PHYSICS (QR course) (10-12) (2 semester course for 2 credits)
Prerequisite: Algebra I. This is a lab-based course in which students explore fundamental chemistry and physics principles. Students enrolled in this course examine, through the process of scientific inquiry, the structure and properties of matter, chemical reactions, forces, motion, and the interactions between energy and matter. Working in a laboratory environment, students investigate the basics of chemistry or physics in solving real-world problems that may have personal or social consequences beyond the classroom.

3064 CHEMISTRY I (QR course) (10-12) (2 semester course for 2 credits)
Prerequisite: Algebra I (Must have passed Algebra ECA). Chemistry I is a course based on the following core topics: properties and states of matter, atomic structure, bonding, chemical reactions, solution chemistry, and behavior of gases. Students will compare, contrast and synthesize useful models of the structure and properties of matter and the mechanisms of its interactions. The student will develop an understanding that scientific knowledge is gained from observation and experimentation by conducting laboratory investigations.

3044 EARTH AND SPACE SCIENCE I (10-12) (2 semester course for 2 credits)
This course provides a study of the earth’s lithosphere, atmosphere, hydrosphere, and its celestial environment. This course emphasizes the study of energy at work in forming and modifying earth materials, landforms, and continents through geologic time. Students have opportunities to gain an understanding of the history of the development of the earth and space sciences, to explore the uses of the knowledge of the earth and its environment in various careers, and problems related to personal needs and social issues.

5072 ADVANCED LIFE SCIENCE: FOODS (Core 40 Science) (QR Course) (10-12) (2 semester course for 2 credits)
Advanced Life Science: Foods is a course that provides students with opportunities to participate in a variety of activities including food labs. This is a standards-based, interdisciplinary science course that integrates biology, chemistry, and microbiology in the context of foods, the global food industry, the composition of foods, the nutrition of foods, food and food product development, food processing, food safety and sanitation, food packaging, and food storage. Students enrolled in this course formulate, design, and carry out food-base laboratory and field investigations as an essential course component.

5008 ANIMAL SCIENCE (10-12) (2 semester course for 2 credits)
In this course, students participate in a large variety of activities and lab work including real and simulated animal science experiences and projects. Areas of study may be applied to both large and small animals. Topics to be addressed include: body systems, anatomy and physiology, genetics, reproduction and biotechnology, nutrition, aquaculture, careers in animal science, animal health, environmental requirements, and management practices for the care and maintenance of animals. *This course may be taken for dual credit through Ivy Tech, Animal Science/AGRI 103.*

5216 HUMAN BODY SYSTEMS (Project Lead the Way) (10-12) (2 semester course for 2 credits)
This course is designed to engage students in the study of basic human physiology and the care and maintenance required to support the complex systems. Using a focus on human health, students will employ a variety of monitors to examine body systems (respiratory, circulatory, and nervous) at rest and under stress, and observe the interactions between the various body systems. Students will use appropriate software to design and build systems to monitor body functions. *This course may be taken for dual credit through IUPUI. See instructor.*

4801 COMPUTER SCIENCE I**(10-12) (2 semester course for 2 credits)**

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

5644 PRINCIPLES OF ENGINEERING**(10, 11, 12) (2 semester course for 2 credits)**

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

5276 ANATOMY AND PHYSIOLOGY**(11-12) (2 semester course for 2 credits)**

Prerequisite: Biology I and Chemistry I. In this course, students investigate and apply concepts associated with human anatomy and physiology. Concepts covered include the process of homeostasis and the essentials of human function at the level of genes, cells, tissues, and organ systems. Students will understand the structure, organization, and function of the various components of the healthy human body in order to apply this knowledge in all health-related fields. The course includes ample laboratory experiences that illustrate the application of the standards to the appropriate cells, tissues, organs, and organ systems. Dissection is both appropriate and necessary. Students should be able to use basic laboratory equipment such as microscopes, balances, and pipettes. VU Project Excel Dual Credit BIOL 111, and BIOL 111L, 4 total dual credits.

**3080 PHYSICS I, ADVANCED PLACEMENT
credits)****(QR course)****(11-12) (2 semester course for 2**

Prerequisite: Algebra II. AP Physics I is the equivalent of a first-semester college course in algebra-based physics; it is designed to be taught over a full academic year to enable AP students to develop a deep understanding of the content and to focus on applying their knowledge through inquiry labs. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; mechanical waves and sound. It also introduces electric circuits. Students will take AP Physics 1 exam upon completion of the course. After taking AP Physics 1 students will take AP Physics 2 (recommended for students considering pre-med, life science, or engineering majors).

3066 CHEMISTRY II**(QR course)****(11-12) (2 semester course for 2 credits)**

Prerequisite: Chemistry I and Algebra II. This is an extended chemistry course that examines the chemical reactions of matter in living and nonliving materials. The major topics and concepts covered are stoichiometry, atomic structure, thermochemistry, solutions, acid/base, gas laws and organic chemistry. Laboratory investigations will be performed to allow students the opportunity to observe, calculate and interpret and communicate results effectively. *This course may be taken for dual credit at USI for 4 credits.*

5217 MEDICAL INTERVENTIONS (Project Lead the Way)**(11-12) (2 semester course for 2 credits)**

Medical Intervention is a course that studies medical practices including interventions to support humans in treating disease and maintaining health. Using a project-based learning approach, students will investigate various medical interventions that extend and improve the quality of life, including gene therapy, pharmacology, surgery, prosthetics, rehabilitation, and supportive care. Students will also study the design and development of various interventions including vascular stents, cochlear implants, and prosthetic limbs. Lessons will cover the history of organ transplants and gene therapy with additional readings from current scientific literature, addressing cutting edge developments. Using 3-D imaging software, students will design and build a model of a therapeutic protein. *This course may be taken for dual credit through IUPUI, see instructor.*

5236 COMPUTER SCIENCE II**(11-12) (2 semester course for 2 credits)**

Prerequisite: Computer Science I. Computer Science II explores and builds skills in programming and a basic understanding of the fundamentals of procedural program development using structured, modular concepts. 67 Indiana Department of Education High

School Course Titles and Descriptions Coursework emphasizes logical program design involving user-defined functions and standard structure elements. Discussions will include the role of data types, variables, structures, addressable memory locations, arrays and pointers, and data file access methods. An emphasis on logical program design using a modular approach, which involves task-oriented program functions.

3081 PHYSICS II, ADVANCED PLACEMENT (QR course) (12) (2 semester course for 2 credits)

Prerequisite: AP Physics I. AP Physics II: Algebra-based is equivalent to a second-semester college course in algebra-based physics. Having a full year enables students to develop a deep understanding of the content and focus on applying that knowledge through inquiry-based labs. The course covers fluid mechanics, thermodynamics, electricity and magnetism, optics, and atomic and nuclear physics (recommended for students considering pre-med, life science, or engineering majors).

SOCIAL STUDIES

[Return to table of contents](#)

1548 WORLD HISTORY AND CIVILIZATION (9-12) (2 semester course for 2 credits)

This course provides a study of selected world cultures and civilizations. This course provides a basis for students to compare and analyze patterns of cultures, emphasizing diversity and commonality of human experience and behavior. Students will study the interactions of cultures and the connections among civilizations from earliest times to present. This course is designed to focus on the following areas: 1) prehistory; (2) early world civilizations of the Middle East and Africa; (3) classical civilizations of Europe, and Africa, and (4) and the development of modern societies.

1512 CURRENT PROBLEMS, ISSUES, AND EVENTS (10-12) (1 semester course for 1 credit)

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

1516 ETHNIC STUDIES (10-12) (1 semester course for 1 credit)

Ethnic Studies provides opportunities to broaden students' perspectives concerning lifestyles and cultural patterns of ethnic groups in the United States. This course will either focus on a particular ethnic group or groups, or use a comparative approach to the study of patterns of cultural development, immigration, and assimilation, as well as the contributions of specific ethnic or cultural groups. The course may also include analyses of the political impact of ethnic diversity in the United States.

1518 INDIANA STUDIES (10-12) (1 semester course for 1 credit)

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

1542 UNITED STATES HISTORY (11) (1 semester course for 2 credits)

Students in U.S. History build on concepts developed in previous studies of American History. Students will identify and review significant events, figures, and movements in early American History. Emphasis will be on historical events in the late 19th and 20th centuries and the geographical, social, and economic influences in this time period. Students will demonstrate the ability to trace and analyze chronological periods and relate significant themes and concepts to the time periods. Students will be able to sequence historical events, examine cause and effect, identify different perspectives, relate historical situations to current issues, and read a variety of sources to develop skills in organizing and analyzing information. *May be taken for dual credit through OCU, HIS 242.*

1532 PSYCHOLOGY (11-12) (1 semester course for 1 credit)

Psychology studies individual and group behavior. Content for the course includes knowledge and methods of noted psychologists as well as insights into human behavior patterns and adjustments to social problems. The students will develop a greater insight into various mental disorders and then causes. In addition, they will become aware of and more sensitive to the feelings of others.

1534 SOCIOLOGY (11-12) (1 semester course for 1 credit)

Sociology deals with man in relation to society. Through an analysis of groups in society, such as education, economics, religion, government and family, the role of the individual is clarified. In analyzing man's values and norms, students learn how the rules governing society are established. Much of the course is devoted to the study of social problems and the role of the individual regarding those problems. Prevailing social attitudes are analyzed objectively.

1538 TOPICS IN HISTORY

(11-12) (1 semester course for 1 credit)

This is an advanced Late Twentieth Century American History U.S. History class that studies U.S. History from the Vietnam War to present day. This will be an in depth study of the 1970's to the present using historical research and primary sources

1514 ECONOMICS

(QR course)

(12) (1 semester course for 1 credit)

Economics examines the decision-making process from the viewpoint of the individual consumer acting as a voter in the marketplace. Opportunity-cost is studied from a cost-benefit analysis approach. Alternative economic systems are examined to expand the choice concept of what, how, and for whom goods will be produced. Part of the course identifies how individual choices affect supply and demand and how businesses are formed to supply goods and services to meet demand. Failures in the marketplace are also considered. Economics explores the relationships of economic decision-making and business cycles, monetary policy, and fiscal policy. The role of decision-making in relationship to selected topics such as international trade and choices within the area of policy relating to energy, agriculture, and health are also emphasized.

1540 UNITED STATES GOVERNMENT

(12) (1 semester course for 1 credit)

This course explores governing processes, elements of political theory, and local, state, and national governmental structures. Opportunities should be provided for each student to examine, evaluate, and make decisions concerning the operation of our representative system of government. The content includes topics such as backgrounds and foundations of our system with emphasis on the United States Constitution; legislative, executive, and judicial functions at all levels and in all units of government; government, finance, elections and political parties; and individual rights and responsibilities.

WORLD LANGUAGE

[Return to table of contents](#)

2040 GERMAN I

(9-12) (2 semester course for 2 credits)

German I provides students with opportunities to learn German through written, spoken, listening, and cultural activities. Students engage in individual and small group situations in order to gain an understanding of basic German grammar and vocabulary. The student will be able to: hold a basic conversation, write simple sentences, and understand basic spoken German. The student will also be introduced to German-speaking culture (Germany, Austria, and Switzerland) and their historical influences on the development of American communities and customs. As German shares common roots with the English language, this course also significantly supplements English vocabulary and grammar.

2042 GERMAN II

(10-12) (2 semester course for 2 credits)

German II begins with a review of grammar, pronunciation, and phrases from German I. Students build their speaking skills significantly by applying previous knowledge and learning more specific vocabulary and grammar. This knowledge greatly expands the student's ability to read and write in the German language. This course encourages interpersonal communication through speaking and writing, and 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 continue their education of German-speaking culture (Germany, Austria, and Switzerland) and their similarities and differences with American culture. German II supplements English vocabulary and grammar.

2044 GERMAN III

(11-12) (2 semester course for 2 credits)

German III reinforces the grammar and vocabulary used in the first two years, and introduces finer points of grammar and somewhat more difficult vocabulary. 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. Additionally, students will continue to develop an understanding of German-speaking culture through recognition of the interrelations among the practices, products and perspectives of the target culture; discussion of significant events in the target culture; and investigation of elements that shape cultural identity in the target culture. This course further emphasizes making connections across content areas such as English and history.

2046 GERMAN IV

(12) (2 semester course for 2 credits)

German IV, a course based on Indiana's Academic Standards for World Languages, provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The

skill sets that apply to the exchange of written and oral information are expanded through emphasis on practicing speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop an understanding of German-speaking culture through explaining factors that influence the practices, products, and perspectives of the target culture; reflecting on cultural practices of the target culture; and comparing systems of the target culture and the student's own culture. This course further emphasizes making connections across content areas through the design of activities and materials that integrate the target language and culture with concepts and skills from other content areas. The use and influence of the German language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native German speakers. *This course is offered for dual credit through USI.*

2120 SPANISH I (9-12) (2 semester course for 2 credits)

Spanish I provides the fundamentals of Spanish grammar and reasons for studying Spanish. Students demonstrate an understanding of effective approaches to language learning and of many aspects of Hispanic culture. Students will be expected to participate in individual and paired speaking, and listening activities using laboratory software. They will read specific words and phrases within context, such as weather forecasts, menus, and schedules; understand the conjugations of regular and irregular verbs in the present tense form; comprehend written and spoken directions; respond to oral commands using oral and non-verbal responses; read short texts on basic topics, ask and answer simple questions both orally and in written form, express physical characteristics and personality traits of themselves and others, become familiar with and practice the basic rules of Spanish pronunciation and understand principal differences between the verbs "ser" and "estar". In addition, students learn about the culture of various Spanish speaking countries, the basic geographical locations and features of Mexico, Spain and Hispanic holidays.

2122 SPANISH II (10-12) (2 semester course for 2 credits)

Spanish II is a continuation of Spanish I and therefore students are expected to recall and apply Spanish I material. Students participate in conversations that require more specific vocabulary and grammatical knowledge. Students expand their ability to express themselves by speaking about the present, the past and the future. They will be expected to participate in individual and paired speaking, and listening activities using laboratory software. Spanish II allows students to: interact in various social contexts using appropriate vocabulary and sentence structure; participate in conversations on topics such as childhood, likes and dislikes, occupations, etc.; deliver short, prepared presentations, conjugate and apply rules for using the two past tenses, demonstrate appropriate usage of direct and indirect objects, use polite commands and review informal commands, distinguish between *por* and *para*, conjugate verbs in the future and conditional tenses, become familiar with the use of negatives, read aloud with appropriate pronunciation and intonation, write reasonable responses to a given topic, and summarize facts after reading short texts. Students also learn about the culture of selected Hispanic countries and major Hispanic holidays.

2124 SPANISH III (11-12) (2 semester course for 2 credits)

Spanish III is a continuation of Spanish II and therefore students are expected to recall and apply Spanish II material. Students will participate in individual and paired speaking, and listening activities using laboratory software. Students will read and comprehend short stories, poetry, articles; write summaries, short essays and compositions; deliver prepared and impromptu presentations; understand and apply rules for pronunciation and intonation; write well-planned, meaningful responses to various prompts; understand isolated words and phrases from authentic spoken Spanish; respond to factual and interpretive questions using a variety of grammatical structures; conjugate verbs in the present subjunctive and command forms; conjugate verbs in the present perfect and past perfect tenses; listen, understand, and respond to short passages in the foreign language; interact in short, meaningful conversations with native speakers; and discuss visual and performance artists of various Spanish speaking countries. *This course may be taken for dual credit through OCU, Beg Spanish I/SPAN 101 and Beg Spanish II/SPAN 102.*

2126 SPANISH IV (12) (2 semester course for 2 credits)

In Spanish IV, a major emphasis is placed on review of previous knowledge and fine points of Spanish grammar. Students engage in conversations both inside and outside of the classroom with peers, as well as with native speakers. They participate in individual and paired speaking, and listening activities using laboratory software. Students review verb tenses and vocabulary; read longer authentic materials for comprehension and critical analysis; express opinions and judgments; explore complex points of Spanish grammar; give oral presentations on cultural topics, study Spanish history; discuss music traditions; interpret non-verbal communication; listen, understand, and respond to short passages; paraphrase; and adapt language to specific social settings and audiences. They will participate in cultural experiences, and explore artistic contributions of Latinos. *This course may be taken for dual credit through USI, Intermediate Spanish I/SPAN 203 (6 CR SEM 1) Spanish II/SPAN 204 (6 credits sem. 2).*