Greenfield-Central High School Curriculum Guide 2020-2021

Learning for All, All for Learning
~Every Student, Every Day~

Greenfield-Central High School
810 N. Broadway St.
Greenfield, IN 46140
317-462-9211

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Greenfield-Central High School Personnel

810 N. Broadway St.
Greenfield, IN 46140
Phone: 317-462-9211
Fax: 317-467-6723

Principal	Mr. Jason Cary	ext. 34102
Associate Principal	Mr. David Beal	ext. 34101
Assistant Principal	Mrs. Susanna Coleman	ext. 34104
Dean of Students	Mr. Nathan Bruck	ext. 34108
Athletic Director	Mr. Jared Manning	ext. 34102
School Counseling Director	Mrs. Kim Kile	ext. 34201
School Counselors:		
Grades 9-12 – A-E	Mr. Tim Horsman	ext. 34200
Grades 9-12 – F-L	Mrs. Sherri Foster	ext. 34202
Grades 9-12 – M-SL	Mrs. Sarah Knecht	ext. 34204
Grades 9-12 – SM-Z	Mrs. Kim Kile	ext. 34201
Counseling Secretary	Mrs. Julie Jones	ext. 34203
Registrar	Mrs. Stacie Sheffield	ext. 34205
School Secretary	Mrs. Carol Hiller	ext. 34107
Treasurer	Mrs. Saundra Saba	ext. 34111
Attendance Secretary	Mrs. Christie Coffin	ext. 34112
Principal's Secretary	Mrs. Connie Entrekin	ext. 34100
Athletic Office Secretary	Mrs. Conniejo Harris	ext. 34300
Music Secretary	Mr. Jeremy Turner	ext. 34702

Greenfield-Central High School
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http://gchs.gcsc.k12.in.us
High School CEEB Code – 151350

Counselor Splits (By Student Last Name)

A-E: Tim Horsman, ext. 34200
F-L: Sherri Foster, ext. 34202
M-SL: Sarah Knecht, ext. 34204
SM-Z: Kim Kile, Director, ext. 34201

Learning for All ~ All for Learning

Community

Greenfield is a community located 12 miles east of Indianapolis on U.S. Highway 40 and Indiana State Road 9. It has access to U.S. Interstate 70. The community's population is approximately 22,000. Greenfield is considered a part of the Indianapolis suburban area and a large number of residents work in the Indianapolis area.

School

Greenfield-Central High School is a public high school accredited by the State of Indiana. It has an approximate enrollment of 1500 students in grades 9-12. Vocational students are served by Walker Career Center at Warren Central High School. Students follow an eight block schedule.

Grading Scale

A+	99-100	C+	77-79	*G-CHS Course Retake Policy:*
A	93-98	C	73-76	Students who earn a D+ or lower in a
A-	90-92	C-	70-72	course may choose to retake the course
B+	87-89	D+	67-69	for a better grade. Both grades will
B	83-86	D	63-66	remain on the transcript, but only the
B-	80-82	D-	60-62	better grade will be factored into the
		F	0-59	student's GPA. Students will not earn
				credit for the course being taken again.

Marking System – Class Rank

Class rank is determined by grade point average and ranking all students in descending order on a 4.333 scale. The only class not counted in the GPA is Driver Education.

A+ = 4.333	B+ = 3.333	C+ = 2.333	D+ = 1.333	F = 0.000
A = 4.000	B = 3.000	C = 2.000	D = 1.000	WF = 0.000
A- = 3.667	B- = 2.667	C- = 1.667	D- = 0.667	

Weighted Grades: Advanced Placement and approved dual credit classes will be weighted 0.5 of a letter grade. Students must earn at least a C- to receive the weight of 0.5.

A+ = 4.833	B+ = 3.833	C+ = 2.833
A = 4.500	B = 3.500	C = 2.500
A- = 4.167	B- = 3.167	C- = 2.167

Withdrawal/Failure Grades

Students who drop a class after a semester has started may earn a grade of WF in the course. A WF grade is equivalent to an F, shows up on the student's transcript, and is worth zero grade points. This policy is subject to the discretion of the student's counselor and administrator.

Standardized Tests

ISTEP+ - End of Course Assessments
PSAT
SAT
ACT
Accuplacer
ASVAB

Advanced Placement Testing

Students may select courses in the Advanced Placement programs of Art History, Biology, Calculus (AB & BC), Chemistry, Computer Science Principles, English Language and Composition, European History, Music Theory, Physics (1, 2, & C), Psychology, Statistics, Studio Art (2D, 3D, & Drawing), and U.S. History.

Class of 2019 Profile

Four Year Colleges	48%
Two Year Colleges	20%
Post-Secondary (Totals)	68%
Military	8%
Job Market	24%

Scholastic Aptitude Test (SAT) – Class of 2019

	Reading/Writing	Math
G-CHS Average	552	544

• 64% of the class of 2019 took the SAT

American College Test (ACT) – Class of 2019

	English	Math	Reading	Science	Composite
G-CHS Average	22.1	21.2	23.6	22.6	22.6

• 14% of the class of 2019 took the ACT

The Greenfield-Central Community School Corporation is committed to equal opportunity. All courses, student activities, educational services, programs, instruction, and facilities will not be denied to anyone in the school corporation on the basis of race, sex, handicapping condition, or national origin including limited English proficiency.

Schedule Change Policy

The course offerings at Greenfield-Central High School are based upon student requests during pre-enrollment. Therefore, it is necessary for students to determine their class choices with a commitment to completion of those classes. **There will be no schedule changes to accommodate a student's choice of instructors. Due to limited classroom space and teacher availability, no schedule changes will be made unless an error has occurred or it is deemed necessary by the administrative team.**

Dropped Courses

Anyone who loses credit due to poor attendance, excessive tardiness, non-participation in physical education, or disciplinary reasons will receive a grade of WF (withdrawal failure). The WF grade is counted the same as an "F" in computing grade point average and in determining extracurricular eligibility. Students may ***not*** drop a class at semester if enrolled for the year.

Final Examinations and Semester Grades

At the conclusion of each semester, teachers give final examinations in all classes. Comprehensive testing is encouraged. Teachers check to see whether course objectives have been met and whether students have achieved the minimum competencies for the course. The semester grade is computed using the final examination grade and the cumulative grade, which includes coursework and tests. The cumulative grade counts as 90% of the semester grade, and the final examination counts for 10% of the semester grade.

Online Courses

Greenfield-Central High School offers both credit recovery and online coursework options for students enrolled with the high school. A student needing to recover credits should discuss the options available with a school counselor. The high school counselor must approve credit recovery courses prior to enrollment. Greenfield-Central High School does ***not*** offer online courses to the general public.

Early Graduation

Early graduates are to comply with the following policies:

1. Students may not enroll in Walker Career Center classes during the seventh semester.
2. Students must be approved for early graduation. They must file a completed request form, properly signed by the parent and student, with the director of school counseling prior to the beginning of the final year.
3. The administrative team will decide early graduation status.

Transfer and Out-of-District Student Enrollment

Students transferring to Greenfield-Central High School who will be residing within the boundaries of the Greenfield-Central school district are to obtain permission for admission from the administration. Class enrollment and orientation will be completed by the counseling department. Students removed for disciplinary reasons from another high school will be denied admission to Greenfield-Central High School during the semester in which the disciplinary action occurred. Students who reside outside of the Greenfield-Central school district must apply to enroll as an out-of-district student, and must contact the principal's office in order to do so. The application process and subsequent interview are ***not*** a guarantee of enrollment. The principal reserves the right to make the enrollment decision.

IHSAA Athletic Eligibility and NCAA Guidelines for College Athletes

For information regarding the IHSAA and high school athletics, go to gchscougars.com.

In order to be eligible for practice, participation in regular season competition, and athletically related financial aid during the first academic year in residence, a student entering a Division I or Division II NCAA member institution directly out of high school must meet certain eligibility requirements. Please visit ncaaclearinghouse.org for a description of these requirements and for further information.

Student Four Year Plan

Name:_____ Date:_____

( ) Core 40 Diploma ( ) Academic Honors Diploma ( ) Technical Honors Diploma

SEMESTER 1	SEMESTER 2	
9th Grade		**Recommendations**
1. English 9	1. English 9	1. PE I & II
2. Algebra I/Geometry/Algebra II/Precal-Trig	2. Algebra I/Geometry/Algebra II/Precal-Trig	2. Health
3. Bio I/Bio II/ICP/Biomed/Chemistry/Physics	3. Bio I/Bio II/ICP/Biomed/Chemistry/Physics	3. World Language (AHD)
4. Geography/World History	4. Geography/World History	
5.	5.	
6.	6.	
7.	7.	
8. Enrichment Block	8. Enrichment Block	
10th Grade		**Recommendations**
1. English 10	1. English 10	1. World Language (AHD)
2. Geometry/Alg II/Precal-Trig/AP Calc/AP Stats	2. Geometry/Alg II/Precal-Trig/AP Calc/AP Stats	
3. Bio I/Bio II/Chemistry/Physics/ICP	3. Bio I/Bio II/Chemistry/Physics/ICP	
4. Geography/World History	4. Geography/World History	
5.	5.	
6.	6.	
7.	7.	
8. Enrichment Block	8. Enrichment Block	
11th Grade		**Recommendations**
1. Eng 11/AP Eng	1. Eng 11/AP Eng	1. World Language (AHD)
2. Algebra II/Precal-Trig/AP Calc/AP Stats	2. Algebra II/Precal-Trig/AP Calc/AP Stats	
3. Bio II/Chemistry/Physics	3. Bio II/Chemistry/Physics	
4. USHist/AP USHist/ACP USHist	4. USHist/AP USHist/ACP USHist	
5.	5.	
6.	6.	
7.	7.	
8. Enrichment Block	8. Enrichment Block	
12th Grade		**Recommendations**
1. Eng 12/W131/Film Lit/Novels/English 111	1. Eng 12/Creative Writing/Speech/English 111	1. Any Science
2. Precal-Trig/AP Calc/AP Stats/CCR Bridge/Finite	2. Precal-Trig/AP Calc/AP Stats/CCR Bridge/Stats	2. World Language (AHD)
3. Government	3. Economics	
4.	4.	
5.	5.	
6.	6.	
7.	7.	
8. Enrichment Block	8. Enrichment Block	

***This is just a planning worksheet for students and parents to map the high school courses over four years.

Every year the counselor and student will meet to schedule for the next year.***

Greenfield-Central High School's
Online Coursework and Credit Recovery Program

Greenfield-Central High School offers online courses through Edgenuity. These online courses are meant to help students recover lost credits or provide a way to earn credits when a hardship is demonstrated (e.g., medical issues, schedule conflict, life circumstances that have interfered with school, etc.). **This is not an online school**.

The following is a list of the courses students can take online through G-CHS.

English

English 9
English 10
English 11
English 12

Mathematics

Algebra I
Algebra II
Business Math
Geometry
Pre-Calculus/Trigonometry
Probability & Statistics

Science

Biology I
Chemistry I
Earth & Space Science I
Environmental Science
Integrated Chemistry-Physics
Physics I

Social Studies

Economics
Geography & History of the World
U.S. Government
U.S. History
World History & Civilization

Electives

Health & Wellness Education
Introduction to Business
Personal Financial Responsibility
Psychology
Sociology

INDIANA
CORE 40

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

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

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

CORE 40 with Academic Honors *(minimum 47 credits)*

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

- Complete all requirements for Core 40.
- Earn 2 additional Core 40 math credits.
- Earn 6-8 Core 40 world language credits (6 credits in one language or 4 credits each in two languages).
- Earn 2 Core 40 fine arts credits.
- Earn a grade of "C" or better in courses that will count toward the diploma.
- Have a grade point average of "B" or better.
- Complete <u>one</u> of the following:
  - A. Earn 4 credits in 2 or more AP courses and take corresponding AP exams.
  - B. Earn 6 verifiable transcripted college credits in dual credit courses from the approved dual credit list.
  - C. Earn two of the following:
    1. A minimum of 3 verifiable transcripted college credits from the approved dual credit list,
    2. 2 credits in AP courses and corresponding AP exams,
    3. 2 credits in IB standard level courses and corresponding IB exams
  - D. Earn a composite score of 1250 or higher on the SAT and a minimum of 560 on math and 590 on the evidence based reading and writing section.
  - E. Earn an ACT composite score of 26 or higher and complete written section.
  - F. Earn 4 credits in IB courses and take corresponding IB exams.

CORE 40 with Technical Honors *(minimum 47 credits)*

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

- Complete all requirements for Core 40.
- Earn 6 credits in the college and career preparation courses in a state-approved College & Career Pathway, and one of the following:
  1. Pathway designated industry-based certification or credential, or
  2. Pathway dual credits from the approved dual credit list resulting in 6 transcripted college credits
- Earn a grade of "C" or better in courses that will count toward the diploma.
- Have a grade point average of "B" or better.
- Complete <u>one</u> of the following:
  - A. Any one of the options (A - F) of the Core 40 with Academic Honors.
  - B. Earn the following minimum scores on WorkKeys: Workplace Documents, Level 6; Applied Math, level 6; and Graphic Literacy, Level 5.
  - C. Earn the following minimum score(s) on Accuplacer: Writing 80, Reading 90, Math 75.
  - D. Earn the following minimum score(s) on Compass: Algebra 66, Writing 70, Reading 80.

GREENFIELD-CENTRAL HIGH SCHOOL GRADUATION PATHWAYS
Graduation Checklist

Students must satisfy **all three** of the following Graduation Pathway Requirements by completing **at least one** of the associated Graduation Pathway Options.

Graduation Pathway Requirements	Graduation Pathway Options
❶ ☐ **High School Diploma**	☐ **Meet the statutorily defined diploma credit and curricular requirements** General _____ Core 40 _____ Core 40 with AHD _____ Core 40 with THD _____
❷ ☐ **Learn and Demonstrate Employability Skills** Students must complete ***at least one*** of the Graduation Pathway Options	☐ **Project-Based Learning Experience**: Working for an extended period of time to investigate and respond to an authentic, engaging, and complex question, problem, or challenge. Students engage in a rigorous, extended process of asking questions, finding resources, and applying information. Students often make work public by explaining, displaying, and/or presenting it to people beyond the classroom. *This can include completion of a research project, completion of a course capstone, an AP Capstone Assessment, or another experience as approved by the State Board of Education.* Description: _____ Verification: _____ ☐ **Service-Based Learning Experience**: Integrates meaningful service to enrich and apply academic knowledge, teach civic and personal responsibility, and strengthen communities. *This can include participation in a meaningful volunteer or civic engagement experience, engagement in a school-based activity, such as a co-curricular or extracurricular activity or sport for at least one academic year, or another experience as approved by the State Board of Education.* Description: _____ Verification: _____ ☐ **Work-Based Learning Experience**: Reinforces academic, technical, and social skills learned in the classroom through collaborative activities with employer partners, allowing students to apply classroom theories to practical problems, explore career options, and pursue personal and professional goals. *This can include completion of a course capstone, completion of an internship, obtaining the Governor's Work Ethic Certificate, employment outside of the school day, or another experience as approved by the State Board of Education*. Description: _____ Verification: _____
❸ ☐ **Postsecondary-Ready Competencies** Students must complete ***at least one*** of the Graduation Pathway Options	☐ **Honors Diploma** AHD _____ THD _____ GPA _____ Credits _____ ☐ **ACT College Ready Benchmarks** (18 in English **or** 22 in Reading **and** 22 in Math **or** 23 in Science) English _____ **or** Reading _____ **and** Math _____ **or** Science _____ ☐ **SAT College Ready Benchmarks** (480 in EBRW, 530 in Math) EBRW _____ Math _____ ☐ **ASVAB** (minimum score of 31) AFQT score _____ ☐ **State and Industry Recognized Credential or Certification** _____ ☐ **State, Federal, or Industry Recognized Apprenticeship or Co-Op** _____ ☐ **CTE Concentrator** (earn C- average in at least 6 high school credits in career sequence) _____ _____ _____ _____ _____ _____ Total Average Grade _____ ☐ **AP/Dual Credit**** (earn C- average in at least 3 courses) _____ _____ _____ Total Average Grade _____ AP Exam scores _____ ☐ **CLEP Exams** (minimum score of 50 on at least 3 subject area exams with at least one being in core content) ☐ **Locally Created Pathway** that earns approval of State Board of Education _____ ☐ **Waiver Eligible** (must meet criteria for Postsecondary Readiness Competency Waiver)

**At least one AP/Dual Credit course must be in a core content area (e.g. English, math, science, or social studies). Students must take any corresponding AP exams for their courses. A score of 3 or higher on an AP exam may satisfy the C- requirement for a particular course.

COURSES GREENFIELD-CENTRAL HIGH SCHOOL STUDENTS CAN TAKE TO FULFILL GRADUATION PATHWAYS REQUIREMENTS BOX 2 (must complete at least one semester of the course with a grade average of C- or better)

Project-Based Learning (PBL)

AP 2-D Art & Design (student must submit portfolio)
AP 3-D Art & Design (student must submit portfolio)
AP Computer Science Principles
AP Drawing (student must submit portfolio)
Architectural Drafting & Design II (Walker Career Center)
Entrepreneurship & New Ventures Capstone
PLTW Aerospace Engineering
PLTW Biomedical Innovation
PLTW Civil Engineering & Architecture
PLTW Digital Electronics
PLTW Engineering Design & Development
Robotics Design & Innovation
Student Media Newspaper
Student Media Yearbook

Service-Based Learning (SBL)

Community Service
Extracurriculars, Co-Curriculars & Athletics (requires coach, teacher, or advisor to score student on rubric)
Peer Tutoring

Work-Based Learning (WBL)

Career Exploration Internship
Construction Trades: HVAC I & II
Education Professions I & II
Fashion and Textiles Careers I
JAG
Radio and Television I
Supervised Agricultural Experience

<u>These courses taken at Mt. Vernon High School:</u>

Aviation Flight
Aviation Operations

<u>These courses taken at Walker Career Center:</u>

Automotive Collision Repair I & II
Automotive Services Technology I & II
Commercial Photography
Construction Trades I & II
Cosmetology II
Criminal Justice I & II
Culinary Arts & Hospitality I
Culinary Arts & Hospitality II: Culinary Arts
Dental Careers I
Early Childhood Education I & II
Education Professions I
Electronics & Computer Technology I & II
Graphic Design & Layout
Health Science Education I
Health Science Education II: Special Topics
Industrial Automation & Robotics I & II
Information Technology Support I
Precision Machining I & II
Radio & Television I & II
Welding Technology I & II

QUANTITATIVE REASONING COURSES

- For the Core 40, Academic Honors, and Technical Honors diplomas, students must take a mathematics course or a quantitative reasoning (applied mathematics) course each year they are enrolled in high school.
- For the General Diploma, students must earn two credits in a mathematics course or a quantitative reasoning (applied mathematics) course during their junior or senior year.
- A quantitative reasoning (applied mathematics) course is a high school course that "advances a student's ability to apply mathematics in real world situations and contexts" and that "deepens a student's understanding of high school mathematics standards."

Agriculture	
AGH340/341	***5070*** Advanced Life Science, Animals
AGH300/301	***5002*** Agribusiness Management
AGH310/311	***5136*** Landscape Management I
Business, Marketing, and IT	
BUH200/201	***4512*** Business Math
BUH402	***4540*** Personal Financial Responsibility
Engineering and Technology	
TEH460/461	***4816*** Aerospace Engineering
TEH500/501	***4820*** Civil Engineering and Architecture
TEH350/351	***4826*** Digital Electronics
TEH660/661	***4828*** Engineering Design and Development
TEH260/261	***4814*** Principles of Engineering
Family and Consumer Sciences	
FCH302/303	***5072*** Advanced Life Science, Foods
Science	
SCH640/641	***3020*** AP Biology
SCH300/301	***3064*** Chemistry I
SCH304/305	***3064*** Honors Chemistry I
SCH320/321	***3066*** Chemistry II
SCH650/651	***3060*** AP Chemistry
SCH230/231	***3108*** Integrated Chemistry-Physics
SCH420/421	***3084*** Physics I
SCH662/663	***3080*** AP Physics 1: Algebra-Based
SCH664/665	***3081*** AP Physics 2: Algebra-Based
SCH668/669	***3088*** AP Physics C
Social Studies	
SOH420	***1514*** Economics
Trade and Industrial	
VOH432/433	***5652*** Architectural Drafting and Design II
VOH422/423	***5578*** Construction Trades II
VOH328/329	***5498*** Construction Trades: HVAC II
VOH437/438	***5694*** Electronics and Computer Technology II
VOH424/425	***5612*** Industrial Automation & Robotics II
VOH362/363	***5782*** Precision Machining I
VOH462/463	***5784*** Precision Machining II

ADVANCED PLACEMENT® COURSES

Greenfield-Central High School currently offers nineteen Advanced Placement® courses. These are college level courses with curriculum designed by College Board®. At Greenfield-Central, these are year-long courses and the students are expected to participate in the course for the full year. Students are also expected to prepare for and take the Advanced Placement® exam that is given in May. Students can potentially earn college credit, advanced course placement, or both for coursework completed in high school, based upon their AP® exam results. If the student earns a grade of C- or better in the course, the grade will be weighted.

Advanced Placement® courses are academically rigorous and involve more work outside of class than regular courses. Some AP® courses have required assignments that must be completed prior to the start of the school year. Students will be required to sign a contract stating that they will complete the full course and take the corresponding exam, so students and parents should carefully consider these factors before making a commitment to an AP® course. The student's counselor is a valuable resource in the decision-making process.

Below is a list of the Advanced Placement® course offerings. Full course descriptions and prerequisites are listed in the appropriate department course listings.

2-D Art and Design
3-D Art and Design
Art History
Biology
Calculus AB
Calculus BC
Chemistry
Computer Science Principles
Drawing
English Language & Composition
European History
Music Theory
Physics 1: Algebra-Based
Physics 2: Algebra-Based
Physics C: Electricity & Magnetism
Physics C: Mechanics
Psychology
Statistics
United States History

Advanced Placement® is a trademark registered by the College Board,
which is not affiliated with, and does not endorse, this publication.

DUAL CREDIT COURSE SUMMARY

Greenfield-Central High School provides many opportunities for students to earn both high school and college credits simultaneously. Dual credit courses are considered college-level courses and are treated as such. They are more academically rigorous than regular high school courses and prepare students for entry to post-secondary school. These courses are offered by the colleges listed and are taught by Greenfield-Central High School faculty in the high school classroom. The courses are offered either free or at a significant tuition discount. Students will register with the university to earn the college credits and have them put on a college transcript. Most of these credits are transferable between colleges, but there are exceptions. Students and their families are strongly encouraged to contact the college they wish to attend to be sure they will accept these credits. Also, different colleges have different requirements for awarding the dual credit. Please refer to the individual course's description in this guide for details regarding what qualifies a student to receive college credit for the course.

Greenfield-Central High School Course	Priority Dual Credit Course (counts toward AHD and THD)	Weighted Grade	Core Transfer Library Course Title	Post-Secondary School to Award Credit	Post-Secondary School Course Title	Potential College Credit Hours to be Earned
Speech COMM210	Yes	Yes	Introduction to Public Speaking	Ball State University	COMM 210 Fundamentals of Public Speaking	3
ACP Biology	Yes	Yes	Human Biology	Indiana University-Bloomington	BIOL L100 Humans & the Biological World	5
ACP Chemistry C101/C121	Yes	Yes	Elementary General Chemistry with Lab	Indiana University-Bloomington	CHEM C101/C121 Elementary Chemistry I/ Elementary Chem Lab I	5
ACP U.S. History H105/H106	Yes	Yes	American History 1 American History 2	Indiana University-Bloomington	H105 American History I (to 1865) H106 US History II: 1865-Present	3/semester
W131 English 12	Yes	Yes	English Comp 1	Indiana University-Bloomington	ENG W131 Reading, Writing, & Inquiry I	3
English 12 Dual Credit ENG 111	Yes	Yes	English Comp 1	Ivy Tech Community College	ENGL 111 English Composition	3
Advanced Life Science: Animals	Yes	No		Ivy Tech Community College	AGRI 107 Advanced Animal Science	3
Agribusiness Management	Yes	No		Ivy Tech Community College	AGRI 102 Agribusiness & Farm Management	3
Ag Power, Structure & Tech	Yes	No		Ivy Tech Community College	AGRI 106 Agriculture Mechanization	3
Animal Science	Yes	No		Ivy Tech Community College	AGRI 103 Animal Science	3
Horticulture Science	Yes	No		Ivy Tech Community College	AGRI 116 Survey of Horticulture	3
Landscape Management I	Yes	No		Ivy Tech Community College	AGRI 164 Landscape Design I	3
Plant & Soil Science	Yes	No		Ivy Tech Community College	AGRI 105 Plant & Soil Science	3
Drawing I + II	No	No		Ivy Tech Community College	ARTS 100 Life & Object Drawing I	3
Visual Communication I	No	No		Ivy Tech Community College	VISC 115 Introduction to Computer Graphics	3
Visual Communication II	No	No		Ivy Tech Community College	VISC 102 Fundamentals of Imaging	3
Culinary Arts & Hospitality Management I	Yes	No		Ivy Tech Community College	HOSP 101 Sanitation & First Aid	2
Education Professions I	Yes	No		Ivy Tech Community College	EDUC 101 Introduction to Teaching	3

Education Professions II	Yes	No		Ivy Tech Community College	EDUC 233 Literacy Development through Children's Literature	3
Business Law and Ethics	Yes	No		Ivy Tech Community College	BUSN 201 Business Law	3
Principles of Business Management	Yes	No	Introduction to Business	Ivy Tech Community College	BUSN 101 Introduction to Business	3
Principles of Marketing	Yes	No		Ivy Tech Community College	MKTG 101 Principles of Marketing	3
Entrepreneurship and New Ventures Capstone	No	No		Ivy Tech Community College	ENTR 101 The Entrepreneur & The Enterprise ENTR 105 Entrepreneurial Mktg & Market Research	3 3
Honors Spanish III	Yes	Yes	Spanish Level 1 & Spanish Level 2	Ivy Tech Community College	SPAN 101/102 Spanish Level I & Spanish Level II	4/semester
Spanish IV	Yes	Yes	Spanish Level 3 & Spanish Level 4	Ivy Tech Community College	SPAN 201/202 Spanish Level III & Spanish Level IV	3/semester
Aviation Flight	Yes	No		Ivy Tech Community College	AVIT 120 Private Pilot Theory	6
Aviation Operations	Yes	No		Ivy Tech Community College	AVIT 111 Introduction to Aviation Technology AVIT 132 Aviation Operations AVIT 135 Aviation Security & Emergency Planning	3 3 3
Biomedical Innovation PLTW*^	Yes	Yes		Ivy Tech Community College	PLTW BIOT 107 Human Body Systems & Biomedical Interventions	4
Introduction to Engineering Design (IED)*	Yes	Yes		Ivy Tech Community College Ivy Tech Community College Purdue Polytechnic Institute	PLTW DESN 101 (IED) Intro to Design Technology PLTW DESN 113 (IED) 2D Computer-Aided Design IT 10500 Introduction to Engineering Design	3 3 3
Principles of Engineering (POE)*	Yes	Yes		Ivy Tech Community College Purdue Polytechnic Institute	PLTW DESN 104 (POE) Mechanical Graphics IT 10700 Principles of Engineering	3 3
Digital Electronics (DE)*	Yes	Yes		Ivy Tech Community College Purdue Polytechnic Institute	PLTW EECT 112 (DE) Digital Fundamentals IT 10600 Digital Electronics	3 3
Civil Engineering & Architecture (CEA)*	Yes	Yes		Ivy Tech Community College Purdue Polytechnic Institute	PLTW DESN 105 (CEA) Architectural Design I IT 10300 Exploring Civil Engineering & Architecture	3 3
Aerospace Engineeering (AE)*~	No	Yes		Purdue Polytechnic Institute	IT 10200 Aerospace Studies	3

*Credits may not be transferable. Students should contact the university directly for more information.

^Students must complete all four courses in the PLTW Biomedical Sciences pathway (Principles of Biomedical Sciences, Human Body Systems, Medical Interventions, and Biomedical Innovation) to earn the dual credit through Ivy Tech.

~The Purdue Polytechnic Institute at Purdue University awards elective credits for the completion of certain PLTW courses with semester grades of B or better. Please see the PLTW Course Mapping reference sheet on page 17 for further details.

For questions regarding college credits earned or to have the credits transferred to the college/university of the student's choice, students must contact the registrar's office at the university associated with the course.

IVY TECH COMMUNITY COLLEGE DUAL CREDIT COURSES

To earn dual credit, students must meet the college entry level scores in designated placement tests. The needed scores are listed below.

PROGRAM READY WRITING (Student must meet at least one of the following):

- ACCUPLACER Standard – 80 Sentence Skills
- ITCC ACCUPLACER Diagnostic Write Placer 4
- ACT – 17 English
- SAT – 27 Writing and Language Skills
- SAT – 510 Evidence-Based Reading & Writing
- PSAT – 26 Writing Skills
- High School GPA 2.6 on 4.0 Scale, Core 40, four semesters completed

PROGRAM READY READING (Student must meet at least one of the following):

- ACCUPLACER Standard – 76 Reading
- IDOE/ITCC Diagnostic – 69 Reading
- ACT – 18 Reading
- SAT – 25 Reading Test
- SAT – 510 Evidence-Based Reading & Writing
- PSAT – 25 Critical Reading
- High School GPA 2.6 on 4.0 Scale, Core 40, four semesters completed

PROGRAM READY MATH (Student must meet at least one of the following):

- ACCUPLACER Standard – 40 Elementary Algebra or 60 Arithmetic
- IDOE/ITCC ACCUPLACER Diagnostic – 45
- ACT – 18 Math
- SAT – 500 Math
- PSAT – 24.5 Mathematics
- High School GPA 2.6 on 4.0 Scale, Core 40, four semesters completed

NOTES:

- To qualify for earning college credit for these courses, students must be considered program ready in **Writing** and **Reading**. Some courses also require **Math** program readiness and are designated as such below.
- If you do not currently meet these prerequisites, testing will be completed in the fall. You may take the class even if you do not meet the requirements after the fall testing; however, you will not earn college credit for the class.
- All of these scores are only accepted for 4 years after a test was taken.
- **KEY:** **^** Requires student to be program ready in **Writing** and **Reading**
  ***** Requires student to meet **Math** requirement in addition to **Writing** and **Reading** requirements
  ~ Requires student to be program ready in **Math** only

G-CHS Course	IDOE Course	Ivy Tech Course
AGH211/212 Horticulture Science	5132 Horticulture Science	AGRI 116 Survey of Horticulture
AGH220/221 Animal Science	5008 Animal Science	AGRI 103 Animal Science
AGH300/301 Agribusiness Management	5002 Agribusiness Management	AGRI 102 Agribusiness and Farm Management
AGH310/311 Landscape Management	5136 Landscape Management I	AGRI 164 Landscape Design I
AGH322/323 Agriculture Power, Structure & Technology	5088 Agriculture Power, Structure & Technology	AGRI 106 Agriculture Mechanization
AGH334/335 Plant and Soil Science	5170 Plant and Soil Science	AGRI 105 Plant and Soil Science
AGH340/341 Advanced Life Science: Animals	5070 Advanced Life Science: Animals	AGRI 107 Advanced Animal Science
^ ARH206 Drawing II	4060 Drawing	ARTS 100 Life and Object Drawing I
^ ARH300 Visual Communication I	4086 Visual Communication	VISC 115 Introduction to Computer Graphics
^ ARH301 Visual Communication II	4086 Visual Communication	VISC 102 Fundamentals of Imaging
* BUH250/251 Principles of Marketing	5914 Principles of Marketing	MKTG 101 Principles of Marketing
^ BUH260/261 Principles of Business Management	4562 Principles of Business Management	BUSN 101 Introduction to Business
^ BUH314/315 Business Law & Ethics	4560 Business Law & Ethics	BUSN 201 Business Law
* BUH317/318 Entrepreneurship	5966 Entrepreneurship New Ventures	ENTR 101 Entrepreneur & Enterprise ENTR 105 Entrepreneurial Marketing
^ ENH410 English 12, Dual Credit	1008 English 12	ENGL 111 English Composition
^ FCH344/345 Culinary Arts & Hospitality I	5440 Culinary Arts & Hospitality I	HOSP 101 Sanitation & Safety
^ FCH350/351 Education Professions I	5408 Education Professions I	EDUC 101 Introduction to Teaching
^ FCH352/353 Education Professions II	5404 Education Professions II	EDUC 233 Literacy Development through Children's Literature
^ FSH310/311 Honors Spanish III	2124 Spanish III	SPAN 101/102 Spanish Levels I/II
^ FSH400/401 Spanish IV	2126 Spanish IV	SPAN 201/202 Spanish Levels III/IV
SCH450/451 PLTW Biomedical Innovation	5219 PLTW Biomedical Innovation	PLTW BIOT 107 Human Body Systems & Biomedical Interventions
TEH160/161 Introduction to Engineering Design	4812 Introduction to Engineering Design	PLTW DESN 101 Intro to Design Tech PLTW DESN 113 2D Computer Design
TEH260/261 Principles of Engineering	4814 Principles of Engineering	PLTW DESN 104 (POE) Mechanical Graphics
~ TEH350/351 Digital Electronics	4826 Digital Electronics	PLTW EECT 112 (DE) Digital Fundamentals
TEH500/501 Civil Engineering & Architecture	4820 Civil Engineering & Architecture	PLTW DESN 105 (CEA) Architectural Design I
VOH600/601 Aviation Flight	5524 Aviation Flight	AVIT 120 Private Pilot Theory
VOH602/603 Aviation Operations	5528 Aviation Operations	AVIT 111 Intro to Aviation Tech AVIT 132 Aviation Operations AVIT 135 Aviation Security & Planning

HIGH SCHOOL PROJECT LEAD THE WAY COURSES = PURDUE UNIVERSITY CREDITS

Students enrolled in one of 13 majors within the Purdue Polytechnic Institute can receive up to 12 credit hours of elective credits (equivalent of four courses) toward their Purdue University degree.

PLTW credits apply to Purdue's majors that focus on engineering technologies, construction management and technology management offered on the West Lafayette campus and nine other locations around Indiana. The Purdue Polytechnic Institute is the ONLY college at Purdue University that awards credit for PLTW coursework.

HOW IT **WORKS**

If you enroll in one of these **13 Purdue Polytechnic majors**	And you've completed any of these **courses from a PLTW high school** with semester grades of B or better	You can be awarded elective credits for these **Purdue courses**
Audio Engineering Technology Automation and Systems Integration Engineering Technology Construction Management Technology Design and Construction Integration Electrical Engineering Technology Engineering Technology (at select Polytechnic locations) Engineering/Technology Teacher Education Industrial Engineering Technology Mechanical Engineering Technology Mechatronics Engineering Technology Organizational Leadership Robotics Engineering Technology Supply Chain Management Technology	Aerospace Engineering (AE)	IT 10200: Aerospace Studies
	Civil Engineering & Architecture (CEA)	IT 10300: Exploring Civil Engineering & Architecture
	Introduction to Engineering Design (IED)	IT 10500: Introduction to Engineering Design
	Digital Electronics (DE)	IT 10600: Digital Electronics
	Principles of Engineering (POE)	IT 10700: Principles of Engineering
	Computer-Integrated Manufacturing (CIM)	IT 10800: Computer Integrated Manufacturing

The Purdue Polytechnic Institute at Purdue University approaches learning similarly to Project Lead The Way. The college uses innovative learning methods, real-world experiences, and industry partnerships to produce graduates who are uniquely qualified for technology-driven careers. In addition to Purdue University's main campus in West Lafayette, Indiana, the Polytechnic offers degree programs in nine Indiana communities: Anderson, Columbus, Indianapolis, Kokomo, Lafayette, New Albany, Richmond, South Bend, and Vincennes.

PURDUE POLYTECHNIC

PROJECT LEAD THE WAY PLTW

polytechnic.purdue.edu/pltw

EA/EOU

2020-21 Course Summary

INTERDEPARTMENTAL

ADH100/101	*0520* Peer Tutoring F/S
ADH210/211	*0524* Community Service F/S
ADH330/331	*0509* Jobs for America's Graduates (JAG I) F/S
ADH340/341	*0509* Jobs for America's Graduates (JAG II) F/S
ADH350/351	*0530* Career Start F/S
ADH450/451	*0530* Career Exploration Internship F/S
ADH500/501	*3520* Driver Education

AGRICULTURE

AGH102/103	*5056* Intro to Ag, Food & Natural Resources F/S
AGH211/212	*5132* Horticulture Sci F/S **(not offered 20-21)**
AGH220/221	*5008* Animal Science F/S
AGH250	*5228* Supervised Agricultural Experience
AGH300/301	*5002* Agribusiness Mgmt F/S **(not offered 20-21)**
AGH310/311	*5136* Landscape Management I F/S
AGH322/323	*5088* Ag Power, Structure & Tech F/S
AGH334/335	*5170* Plant and Soil Science F/S
AGH340/341	*5070* Advanced Life Science: Animals F/S

FINE & VISUAL ARTS

ARH100	*4000* Introduction to 2D Art
ARH101	*4004* Advanced 2D Art
ARH110	*4002* Introduction to 3D Art
ARH111	*4006* Advanced 3D Art
ARH200	*4062* Photography
ARH202	*4060* Drawing I
ARH206	*4060* Drawing II *****
ARH314	*4060* Drawing III
ARH316	*4060* Drawing IV
ARH212	*4040* Ceramics I
ARH214	*4040* Ceramics II
ARH312	*4040* Ceramics III
ARH213/215	*4044* Sculpture I/II
ARH220	*4042* Jewelry
ARH300	*4086* Visual Communication I *****
ARH301	*4086* Visual Communication II *****
ARH315/317	*4064* Painting I/II
ARH600/601	*4048* AP Drawing F/S **#**
ARH602/603	*4050* AP 2-D Art & Design F/S **#**
ARH604/605	*4052* AP 3-D Art & Design F/S **#**
ARH606/607	*4025* AP Art History F/S **#**

BUSINESS, MARKETING, & IT

BUH132	*4518* Introduction to Business
BUH153	*4528* Digital Apps & Responsibility
BUH170	*4574* Web Design
BUH180	*5234* Networking I **(not offered 20-21)**
BUH200/201	*4512* Business Math F/S
BUH222/223	*4524* Introduction to Accounting F/S
BUH250/251	*5914* Principles of Marketing F/S *****
BUH260/261	*4562* Principles of Business Management F/S *****
BUH314/315	*4560* Business Law & Ethics F/S *****
BUH317/318	*5966* Entrepreneurship New Ventures F/S *****
BUH600/601	*4569* AP Computer Science Principles F/S **#**

ENGLISH

ENH102/103	*1010* Language Arts Lab F/S
ENH110/111	*1002* English 9 F/S
ENH120/121	*1002* Honors English 9 F/S
ENH624/625	*1002* Honors English 9 (High Ability) F/S
ENH130	*1080* Journalism
ENH210/211	*1004* English 10 F/S
ENH220/221	*1004* Honors English 10 F/S
ENH626/627	*1004* Honors English 10 (High Ability) F/S
ENH230	*1060* Etymology
ENH301	*1078* Speech COMM210 (BSU) **&**
ENH312/313	*1006* English 11 F/S
ENH322/323	*1006* Honors English 11 F/S
ENH330/331	*1086* Student Media Newspaper F/S
ENH340/341	*1086* Student Media Yearbook F/S
ENH410	*1008* English 12 DC (ENG 111 Ivy Tech) **&**
ENH412/413	*1008* English 12 F/S
ENH420	*1008* W131 Reading Writing Inquiry I (IU) **&**
ENH430	*1034* Film Literature
ENH432	*1042* Novels (Contemporary YA Lit.)
ENH440	*1092* Creative Writing
ENH450	*1096* Technical Communication
ENH660/661	*1056* AP English Language & Comp F/S **#**

FAMILY & CONSUMER SCIENCE

FCH100	*5342* Nutrition and Wellness
FCH201	*5340* Advanced Nutrition and Wellness
FCH301	*5340* Advanced Nutrition International
FCH130	*5364* Interpersonal Relationships
FCH152	*5380* Introduction to Fashion & Textiles
FCH224	*5362* Child Development
FCH225	*5360* Advanced Child Development
FCH226	*5360* Advanced Child Development - Parenting
FCH252	*5350* Intro to Housing & Interior Design
FCH260/261	*5420* Fashion & Textiles Careers I F/S
FCH302/303	*5072* Advanced Life Science: Foods F/S
FCH310/311	*5366* Human Development & Wellness F/S
FCH342/343	*5438* Intro to Culinary Arts & Hospitality F/S
FCH344/345	*5440* Culinary Arts & Hospitality I F/S *****
FCH350/351	*5408* Education Professions I F/S *****
FCH352/353	*5404* Education Professions II F/S

WORLD LANGUAGE

FFH100/101	*2020* French I F/S
FFH200/201	*2022* French II F/S
FFH300/301	*2024* French III F/S
FFH400/401	*2026* French IV F/S
FGH100/101	*2040* German I F/S
FGH200/201	*2042* German II F/S
FGH300/301	*2044* German III F/S
FGH400/401	*2046* German IV F/S
FSH100/101	*2120* Spanish I F/S
FSH200/201	*2122* Spanish II F/S
FSH210/211	*2122* Honors Spanish II F/S
FSH300/301	*2124* Spanish III F/S
FSH310/311	*2124* Honors Spanish III F/S **&**
FSH400/401	*2126* Spanish IV F/S **&**
FSH500/501	*2128* Spanish V F/S

MATHEMATICS

MAH100/101	*2560* Mathematics Lab F/S
MAH152/153	*2516* Algebra I Lab F/S
MAH200/201	*2520* Algebra I F/S
MAH210/211	*2532* Geometry F/S
MAH220/221	*2532* Honors Geometry F/S
MAH300/301	*2522* Algebra II F/S

2020-21 Course Listing

MAH320/321	*2522* Honors Algebra II F/S
MAH406	*2564* Pre-Calculus
MAH407	*2566* Trigonometry
MAH408	*2564* Honors Pre-Calculus
MAH409	*2566* Honors Trigonometry
MAH310	*2546* Probability and Statistics
MAH430	*2530* Finite Mathematics
MAH440/441	*2595* CCR Bridge: Math Ready F/S
MAH530/531	*2570* AP Statistics F/S **#**
MAH630/631	*2562* AP Calculus AB F/S **#**
MAH632/633	*2572* AP Calculus BC F/S **#**

PERFORMING ARTS

MUH050/051	*4160* Beginning Concert Band F/S
MUH100/101	*4168* Intermediate Concert Band F/S
MUH200/201	*4170* Advanced Concert Band F/S
MUH106/107	*4162* Instrumental Ensemble (Strings) F/S
MUH110/111	*4164* Jazz Ensemble I F/S
MUH112/113	*4164* Jazz Ensemble II F/S
MUH122/123	*4182* Beginning Chorus Boys F/S
MUH124/125	*4182* Beginning Chorus Girls F/S
MUH220/221	*4186* Intermediate Chorus - Bella Voce F/S
MUH312/313	*4186* Intermediate Chorus - Concert Choir F/S
MUH300/301	*4184* Vocal Jazz - Legacy Choir F/S
MUH320/321	*4188* Advanced Chorus - Madrigal F/S
MUH210/211	*4208* Music Theory and Composition F/S
MUH510/511	*4210* AP Music Theory F/S **#**
MUH230/231	*4142* Dance Choreography (Color Guard) F/S
MUH402/403	*4146* Dance Performance (Blue Fusion) F/S
MUH410	*4242* Theatre Arts
MUH411	*4240* Advanced Theatre Arts
MUH420	*4244* Technical Theatre **(not offered 20-21)**

PHYSICAL EDUCATION & HEALTH

PHH100	*3542* Physical Education I
PHH101	*3544* Physical Education II
PHH102	*3560* Elective PE - Aquatics
PHH110	*3506* Health and Wellness Education
PHH300	*3508* Current Health Issues
PHH600/601	*3560* Elective PE - Strength & Fitness F/S (boys)
PHH700/701	*3560* Elective PE - Strength & Fitness F/S (girls)

SCIENCE

SCH100/101	*3024* Biology I F/S
SCH200/201	*3026* Biology II F/S
SCH204/205	*3026* Pre-AP Biology (Biology II) F/S
SCH640/641	*3020* AP Biology F/S **#**
SCH630/631	*3090* Adv Sci, College Credit - ACP Bio F/S (IU) **&**
SCH400/401	*5276* Anatomy and Physiology F/S
SCH230/231	*3108* Integrated Chemistry & Physics F/S
SCH300/301	*3064* Chemistry I F/S
SCH304/305	*3064* Honors Chemistry I F/S
SCH320/321	*3066* Chemistry II F/S
SCH650/651	*3060* AP Chemistry F/S **#**
SCH672/673	*3066* Chem II - ACP Chemistry C101/C121 F/S **&**
SCH350/351	*3044* Earth & Space Science I F/S
SCH420/421	*3084* Physics I F/S
SCH662/663	*3080* AP Physics 1 F/S **#**
SCH664/665	*3081* AP Physics 2 F/S **#**
SCH668/669	*3088* AP Physics C F/S **#**
SCH250/251	*5218* PLTW Principles of Biomedical Sci F/S **&**
SCH310/311	*5216* PLTW Human Body Systems F/S **&**
SCH430/431	*5217* PLTW Medical Interventions F/S **&**
SCH450/451	*5219* PLTW Biomedical Innovations F/S **&**

SOCIAL STUDIES

SOH200/201	*1548* World History & Civilization F/S
SOH220/221	*1570* Geography & History of the World F/S
SOH300/301	*1542* United States History F/S
SOH660/661	*1562* AP U.S. History F/S **#**
SOH640/641	*1542* ACP U.S. History H105/H106 (IU) F/S **&**
SOH400	*1540* United States Government
SOH420	*1514* Economics
SOH410	*1534* Sociology
SOH430	*1532* Psychology
SOH440	*1518* Indiana Studies
SOH450	*1516* Ethnic Studies
SOH650/651	*1556* AP European History F/S **#**
SOH670/671	*1558* AP Psychology F/S **#**

TECHNOLOGY & ENGINEERING

TEH101/102	*4784* Introduction to Manufacturing F/S
TEH111/112	*4790* Introduction to Communications F/S
TEH121/122	*4798* Introduction to Transportation F/S
TEH131/132	*4792* Introduction to Construction F/S
TEH370/371	*4728* Robotics Design & Innovation F/S
TEH430/431	*4800* Computers in Design & Production F/S
TEH152/153	*5239* PLTW Engineering Essentials F/S
TEH260/261	*5644* PLTW Principles of Engineering F/S **&**
TEH350/351	*5538* PLTW Digital Electronics F/S **&**
TEH160/161	*4802* PLTW Intro to Engineering Design F/S **&**
TEH460/461	*5518* PLTW Aerospace Engineering F/S **&**
TEH500/501	*5650* PLTW Civil Engineering Architecture F/S **&**
TEH660/661	*5698* PLTW Engineering Design & Dev F/S **#**

STUDENT SERVICES

JAH500/501	*0500* Basic Skills F/S
JEH200/201	*1120* Developmental Reading A F/S
JEH340/341	*1120* Developmental Reading C F/S
JEH380/381	*1120* Developmental Reading D F/S
JMH100/101	*2560* Mathematics Lab F/S
SSC312/313	*5330A* Applied Adult Roles and Responsibilities
SSC102/103	*2520A* Applied Algebra I
SSC112/113	*0500A* Applied Basic Skills Development
SSC204/205	*3024A* Applied Biology I
SSC610/611	*4512A* Applied Business Math
SSC512/513	*0530A* Applied Career Exploration Internship
SSC612/613	*0522A* Applied Career Info and Exploration
SSC406/407	*1508A* Applied Citizenship and Civics
SSC604/605	*3508A* Applied Current Health Issues
SSC500/501	*1120A* Applied Developmental Reading
SSC114/115	*4528A* Applied Digital Apps & Responsibility
SSC104/304	*3044A* Applied Earth Space Science I
SSC308/309	*3560A* Applied Elective Physical Education
SSC100/101	*1002A* Applied English 9
SSC200/201	*1004A* Applied English 10
SSC300/301	*1006A* Applied English 11
SSC400/401	*1008A* Applied English 12
SSC306/307	*1570A* Applied Geography & History of World
SSC302/303	*2532A* Applied Geometry
SSC110/111	*3506A* Applied Health and Wellness
SSC107	*1518A* Applied Indiana Studies

2020-21 Course Listing

SSC212/213	*5364A* Applied Interpersonal Relationships
SSC606/607	*1522A* Applied Introduction to Social Science
SSC504/505	*3030A* Applied Life Science
SSC502/503	*2560A* Applied Mathematics Lab
SSC412/413	*5342A* Applied Nutrition and Wellness
SSC510/511	*4540A* Applied Personal Financial Responsibility
SSC108/109	*3542A* Applied Physical Education 1
SSC208/209	*3544A* Applied Physical Education 2
SSC105/305	*3102A* Applied Physical Science
SSC214/215	*5394A* Applied Preparing for College & Careers
SSC106	*1536A* Applied State and Local Government
SSC506/507	*1550A* Applied Topics in Social Science
SSC206/207	*1542A* Applied United States History
SSC314/315	*5974A* Applied Work Based Learning Capstone

***** **Dual Credit Only**

& **Dual Credit and Weighted**

**Weighted Only**

CAREER & TECHNICAL EDUCATION

The following courses are taken at G-CHS

GCH410/411	*5986* Radio and Television I F/S
GCH414/415	*5986* Radio and Television I (Sports) F/S
VOH326/327	*5496* Construction Trades: HVAC I F/S
VOH328/329	*5498* Construction Trades: HVAC II F/S

The following courses are taken at Walker Career Center on the Warren Central High School campus:

VOH303/304	*5514* Automotive Collision Repair I F/S
VOH403/404	*5544* Automotive Collision Repair II F/S
VOH312/313	*5510* Automotive Services Technology I F/S
VOH412/413	*5546* Automotive Services Technology II F/S
VOH316/317	*5412* Early Childhood Education I F/S
VOH322/323	*5580* Construction Trades I F/S
VOH422/423	*5578* Construction Trades II F/S
VOH324/325	*5610* Industrial Automation & Robotics I F/S
VOH424/425	*5612* Industrial Automation & Robotics II F/S
VOH332/333	*5640* Architectural Drafting & Design I F/S
VOH432/433	*5652* Architectural Drafting & Design II F/S
VOH337/338	*5684* Electronics & Computer Technology I F/S
VOH437/438	*5694* Electronics & Computer Technology II F/S
VOH342/343	*5802* Cosmetology I F/S
VOH442/443	*5806* Cosmetology II F/S
VOH344/345	*5230* Information Technology Support I F/S
VOH354/355	*5282* Health Science Education I F/S
VOH454/455	*5286* Health Science Education II F/S
VOH396/397	*5203* Dental Careers I F/S
VOH364/365	*5822* Criminal Justice I F/S
VOH464/465	*5824* Criminal Justice II F/S
VOH362/363	*5782* Precision Machining I F/S
VOH462/463	*5784* Precision Machining II F/S
VOH372/373	*5550* Graphic Design & Layout F/S
VOH374/375	*5570* Commercial Photography F/S
VOH386/387	*5776* Welding Technology I F/S
VOH486/487	*5778* Welding Technology II F/S
VOH388/389	*5440* Culinary Arts & Hospitality I F/S
VOH488/489	*5346* Culinary Arts & Hosp II: Culinary F/S
VOH394/395	*5986* Radio & Television I F/S
VOH498/499	*5992* Radio & Television II F/S

The following courses are taken at Mt. Vernon High School

VOH600/601	*5524* Aviation Flight F/S *****
VOH602/603	*5528* Aviation Operations F/S *****

INTERDEPARTMENTAL COURSES

Career Exploration Internship *0530*

ADH450/451
- Grade 12
- 2 credits each semester
- Prerequisite: Application process
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

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 interest. Unlike a cooperative education program where 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 the student make the connection between academic learning and their work-related experiences. Specific instructional objectives for the internship must be written to clarify the expectations of all parties – the student, the parent, the employer, and the instructor.

Career Start *0530*

ADH350/351
- Grade 11
- 1 credit each semester
- Prerequisite: Application process
- Counts as a Directed Elective or Elective for all diplomas

Career Start is an opportunity for students to learn employment skills through both classroom and on-the-job training. Work ethics including promptness, attendance, team skills, loyalty, etc., will be emphasized. Students will be permitted to leave school to go to work for two blocks every other day. Students will meet with the Career Start teacher once every two weeks for discussion and skill building. Employers must be pre-approved. To qualify, a student must be eligible for a work permit and have a satisfactory attendance and discipline record. Employers must agree to regular evaluation of students and constant communication with the school.

Community Service *0524*

ADH210/211
- Grade 12
- 2 semesters, 2 credits
- **This course is invite-only. Students will receive an invitation and will have to fill out an application in order to take this class. There is an enrollment cap of 20 students maximum.**
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as SBL course for graduation pathways

Community Service is a course created by public law IC 20-30-14, allowing juniors and seniors the opportunity to earn up to two high school credits for completion of approved community service projects or volunteer service that "relates to a course in which the student is enrolled or intends to enroll." For each student who wishes to earn credit for community service or volunteer service under this law, the student, a teacher of the student, or a community or volunteer service organization must submit an application to the high school principal including:

1. The name of the community service organization or volunteer service organization the student intends to assist.
2. The name, address, and telephone number of the director or supervisor of the community service organization or volunteer service organization and, if different from the director or supervisor, the name, address, and telephone number of the individual assigned by the community or volunteer service organization to supervise the student at the activity site.
3. The nature of the community service or volunteer service performed by the student with a certification that the service performed by the student is voluntary.
4. The total number of hours the student intends to serve the community service organization or volunteer service organization during the school year.
5. A written statement by the director or the supervisor of the community service organization or volunteer service organization certifying that the information included in the application is an accurate reflection of:
    a. the student's expectations with regard to the number of hours of service contemplated to be performed; and
    b. the community service organization's or the volunteer service organization's need to acquire the student's service.
6. A description of:
    a. the educational or career exploration benefits the student and the school should expect to gain, including the student

learning standards to be achieved, from the student's community or volunteer service participation
b. the service and benefit the community service organization or volunteer service organization expects to gain from the student's participation.

7. A description of how the community or volunteer service activity relates to a course in which the student is enrolled or intends to enroll.
8. The manner and frequency in which the student and the community or volunteer service activity will be evaluated.
9. The name of the certificated school employee who will be responsible for monitoring and evaluating the student's activity and performance, including assigning to the student a grade for participation under this section.
10. Any other information required by the principal.

Driver Education (L) *3520*

ADH500/501

- 0 credits
- Program costs $365.00, subject to change
- Student must earn a grade of B or higher in both the written and driving portions of the course in no more than three consecutive semesters to earn a waiver to get a driver's license

Driver Education provides students with the knowledge needed to assist them in developing the skills, habits, and attitudes necessary to interact safely and effectively with other highway users in a wide variety of environments, situations, and conditions. This course should always provide a combination of classroom instruction and behind-the-wheel experiences in on-street environments. Whenever possible, the on-street observations and behind-the-wheel experiences should be supplemented with off street, multiple-car driving range and simulation experiences as listed in IAC 5116-6-7. The Driver Education course also provides for, but is not necessarily limited to, student learning related to: (1) driving skills, (2) traffic laws, (3) the laws of nature, (4) driving attitudes, (5) occupant protection, (6) the effect of physical and mental conditions of the driver, (7) vehicle purchase, (8) insurance and maintenance, (9) the ecology and energy efficiency of various transportation modes, (10) energy efficient driving techniques, and (11) sharing the roadway with other users, including motorcyclists and pedestrians. For any approved program, the student must complete both phases (classroom and laboratory) of the program in not more than three consecutive semesters.

Jobs for America's Graduates (JAG) *0509*

ADH330/331 (JAG I)
ADH340/341 (JAG II)

- Grades 11-12
- 2 semesters, 2 credits, 4 credits maximum
- The nature of this course allows for successive semesters of instruction provided progressively advanced proficiencies and content standards are utilized.
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways ***if*** JAG program is completed through JAG II (ADH340/341) with required documentation

Jobs for America's Graduates (JAG) is a state-based, national non-profit organization dedicated to preventing dropouts among young people who are most at-risk. JAG's mission is to keep young people in school through graduation and provide work-based learning experiences that will lead to career advancement opportunities or to enroll in a postsecondary institution that leads to a rewarding career. JAG students receive adult mentoring while in school and one year of follow-up counseling after graduation. The JAG program is funded through grants provided by the Indiana Department of Workforce Development.

Junior Reserve Officer Training Corps (JROTC) *0516*

Not offered 2020-21

ADH130/ADH131

- Grades 9-12
- 1 credit per semester, 8 credits maximum
- The nature of this course allows for successive semesters of study at an advanced level, provided that defined proficiencies and content standards are utilized.
- Dependent on receiving permission to start the program.
- Counts as an Elective for all diplomas

This course is designed to develop: (1) citizenship and patriotism, (2) self-discipline, (3) physical fitness, (4) reliance and leadership, and (5) the skills used in decision making, communications, and problem-solving. The course content and experiences enable the students to understand the role of the military in support of national objectives and to become familiar with basic military knowledge, gender equity issues, benefits, and requirements. Topics to be included in the course are: (1) military history, (2) ROTC in the military, (3)

substance abuse, (4) map reading, (5) marksmanship and firearm safety, (6) military drill, (7) field activities, (8) reserve components, and (9) first aid and hygiene. Opportunities are provided to explore the qualities and traits of courage, self-sacrifice, and integrity. Junior Reserve Officer Training Corps programs must be approved by and meet the requirements of the appropriate military organization.

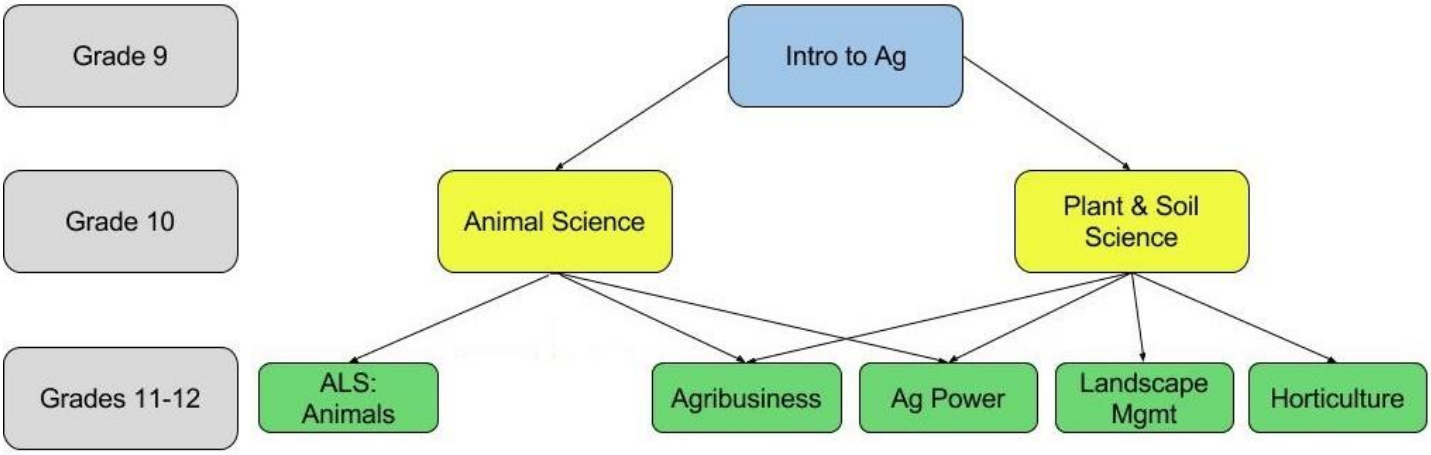
Office Cadet
ADH400/401
• Grades 9-12
• 0 credits

Being an office cadet provides an opportunity for service both inside and outside of school. Students serve as office assistants during school hours. They also serve as student ambassadors outside of school and assist with one activity each semester, such as Meet the Teacher Night, awards ceremonies, concerts, competitions or contests, or any other school function. The minimum GPA for students enrolling is 2.5, and this is a non-credited and non-graded course. Students can take this course in place of an enrichment block.

Peer Tutoring *0520*
ADH100/101
• Grades 10-12
• 1 credit each semester, 2 credits maximum
• Prerequisite: Application and interview process
• Course requirements: GPA 2.5 or higher, must be passing all classes
• Counts as an Elective for all diplomas
• Qualifies as SBL course for graduation pathways

Peer Tutoring provides high school students with an organized exploratory experience to assist students in grades 9-12, 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.

AGRICULTURE DEPARTMENT



Advanced Life Science: Animals (L) *5070*
AGH340/341
CIP Code 26.0701
• Grades 11-12
• 2 semesters, 2 credits
• Recommended Prerequisites: Introduction to Agriculture, Food, and Natural Resources, Animal Science, Biology, and Chemistry or

Integrated Chemistry-Physics
• Fulfills a Core 40 Science requirement for all diplomas
• Counts as an Elective or Directed Elective for all diplomas
• Qualifies as a Quantitative Reasoning course
• Students are eligible to earn 3 college credits for this course through Ivy Tech Community College

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

Agribusiness Management *5002*
Not offered 2020-21
AGH300/301
CIP Code 01.0102
• Grades 11-12
• 2 semesters, 2 credits
• Recommended Prerequisite: Introduction to Agriculture, Food, and Natural Resources
• Counts as a Directed Elective or Elective for all diplomas
• Qualifies as a Quantitative Reasoning course
• Students are eligible to earn 3 college credits for this course through Ivy Tech Community College

Agribusiness Management provides foundational concepts in agricultural business. This course introduces students to the principles of business organization and management from a local and global perspective while incorporating technology. Concepts covered in the course include; accounting and record keeping, business planning and management, food and fiber, forms of business, finance, management, sales and marketing, careers, and leadership development. Students will demonstrate principles and techniques for planning, development, application and management of agribusiness systems through a supervised agriculture experience (work based learning) program.

Agriculture Power, Structure, and Technology *5088*
AGH322/323
CIP Code 01.0201
• Grades 11-12
• 2 semesters, 2 credits
• Recommended Prerequisite: Introduction to Agriculture, Food, and Natural Resources
• Instructor approval is required
• Counts as a Directed Elective or Elective for all diplomas
• Students are eligible to earn 3 college credits for this course through Ivy Tech Community College

Agriculture Power, Structure, and Technology is a lab intensive course in which students develop an understanding of the basic principles of tool selection, operation, maintenance, and management of agricultural equipment in concert with the utilization of technology. Topics covered include: safety, problem solving/troubleshooting, 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.

Animal Science *5008*
AGH220/221
CIP Code 01.0901
• Grades 10-12
• 2 semesters, 2 credits
• Recommended Prerequisite: Introduction to Agriculture, Food, and Natural Resources
• Fulfills a Science course requirement for all diplomas
• Counts as a Directed Elective or Elective for all diplomas
• Students are eligible to earn 3 college credits for this course through Ivy Tech Community College

Animal Science provides students with an overview of the animal agriculture industry. Students participate in a variety of activities and laboratory work including real and simulated animal science experiences and projects. All areas that the students study may be applied to both large and small animals. Topics to be covered in the course include: history and trends in animal agriculture, laws and practices relating to animal agriculture, comparative anatomy and physiology of animals, biosecurity threats and interventions relating to animal

and human safety, nutrition, reproduction, careers, leadership, and supervised agriculture experiences relating to animal agriculture.

Horticultural Science *5132*
Not offered 2020-21
AGH211/212
CIP Code 01.0603
• Grades 11-12
• 2 semesters, 2 credits
• Recommended Prerequisite: Introduction to Agriculture, Food, and Natural Resources
• Fulfills a Life Science or Physical Science requirement for the General Diploma only
• Counts as a Directed Elective or Elective for all diplomas
• Students are eligible to earn 3 college credits for this course through Ivy Tech Community College

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

Introduction to Agriculture, Food, & Natural Resources *5056*
AGH102/103
CIP Code 01.0101
• Grade 9-12
• 2 semesters, 2 credits
• Counts as a Directed Elective or Elective for all diplomas

Introduction to Agriculture, Food, and Natural Resources is highly recommended as a prerequisite to and as a foundation for all other agricultural classes. Through hands-on learning activities, students are encouraged to investigate areas of agriculture. Students are introduced to the following areas of agriculture: animal science, plant and soil science, food science, horticultural science, agricultural business management, natural resources, agriculture power, structure, and technology, careers in agriculture, leadership, and supervised agricultural experience. An activity and project based approach is used along with team building to enhance the effectiveness of the student learning activities.

Landscape Management I *5136*
AGH310/311
CIP Code 01.0605
• Grades 11-12
• 2 semesters, 2 credits
• Recommended Prerequisite: Introduction to Agriculture, Food, and Natural Resources
• Counts as a Directed Elective or Elective for all diplomas
• Qualifies as a Quantitative Reasoning course
• Students are eligible to earn 3 college credits for this course through Ivy Tech Community College

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

Plant and Soil Science *5170*
AGH334/335
CIP Code 01.1102
• Grades 10-12
• 2 semesters, 2 credits
• Recommended Prerequisite: Introduction to Agriculture, Food, and Natural Resources
• Fulfills a Science course requirement for all diplomas

• Counts as a Directed Elective or Elective for all diplomas
• Students are eligible to earn 3 college credits for this course through Ivy Tech Community College

Plant and Soil Science provides students with opportunities to participate in a variety of activities including laboratory and field work. Coursework includes hands-on learning activities that encourage students to investigate areas of plant and soil science. Students are introduced to the following areas of plant and soil science: plant growth, reproduction and propagation, photosynthesis and respiration, diseases and pests of plants and their management, biotechnology, the basic components and types of soil, soil tillage, and conservation.

Supervised Agricultural Experience *5228*

AGH250
• Grades 10-12
• 1 semester, 1 credit, 8 credits maximum
• Recommended Prerequisite: Introduction to Agriculture, Food, and Natural Resources
• This course is also offered during the summer session
• Qualifies as WBL course for graduation pathways

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 will experience and apply what is learned in the classroom, laboratory and training site to real-life situations with a standards-based plan for learning. Students work closely with their agriculture teacher(s), parents and/or employers to get the most out of their SAE program. Curriculum content and standards-based plan for learning should not be duplicated when this course is taken for multiple semesters

BUSINESS, MARKETING, & INFORMATION TECHNOLOGY DEPARTMENT

AP Computer Science Principles *4568*

BUH600/601
• Grades 11-12
• 2 semesters, 2 credits
• Weighted grade
• Recommended Prerequisites: Algebra I, Digital Applications & Responsibility
• Counts as a Math course for all diplomas
• Fulfills a Science course requirement for all diplomas
• Qualifies as a PBL course for graduation pathways

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

Business Law and Ethics *4560*

BUH314/315
• Grades 11-12
• 2 semesters, 2 credits
• Required Prerequisite: Introduction to Business
• Counts as a Directed Elective or Elective for all diplomas
• Students may be eligible to earn 3 college credits for this course through Ivy Tech Community College. Please see page 15 for details.

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

Business Math *4512*

BUH200/201
• Grades 10-12
• 2 semesters, 2 credits

• Required Prerequisite: Algebra I
• Fulfills a Math requirement for the General Diploma or Certificate of Completion only
• Counts as an Elective or Directed Elective for all diplomas
• Qualifies as a Quantitative Reasoning course

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

Digital Applications and Responsibility *4528*

BUH153
• Grades 9-12
• 1 semester, 1 credit
• Counts as a Directed Elective or Elective for all diplomas

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

Entrepreneurship and New Ventures Capstone *5966*

BUH317/318
• Grade 12
• 2 semesters, 2 credits
• Required Prerequisites: a minimum of 4 credits of introductory or advanced CTE courses from the Business and Marketing career cluster: Introduction to Business, Principles of Business Management, Principles of Marketing, Introduction to Accounting, Business Law and Ethics
• Counts as a Directed Elective or Elective for all diplomas
• Qualifies as PBL course for graduation pathways
• Students may be eligible to earn 6 college credits for this course through Ivy Tech Community College. Please see page 15 for details.

Entrepreneurship and New Ventures Capstone introduces entrepreneurship and develops skills and tools critical for starting and succeeding in a new venture. The entrepreneurial process of opportunity recognition, innovation, value proposition, competitive advantage, venture concept, feasibility analysis, and "go to" market strategies will be explored through mini case studies of successful and unsuccessful entrepreneurial start-ups. Additionally, topics of government and legal restrictions, intellectual property, franchising location, basic business accounting, raising startup funding, sales and revenue forecasting, and business plan development will be presented through extensive use of word processing, spreadsheet, and presentation software.

Introduction to Accounting *4524*

BUH222/223
CIP Code 52.0304
• Grades 10-12
• 2 semesters, 2 credits
• Prerequisite: Introduction to Business
• Counts as a Directed Elective or Elective for all diplomas

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

Introduction to Business *4518*

BUH132
• Grades 9-12
• 1 semester, 1 credit
• Counts as a Directed Elective or Elective for all diplomas

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 further develops business vocabulary and provides an overview of business and the role that business plays in economic, social, and political environments.

Networking I *5234*
Not offered 2020-21
BUH180
• Grades 11-12
• 1 semester, 1 credit
• Recommended Prerequisites: Digital Electronics/Introduction to Business or Web Design or Introduction to Engineering/Principles of Engineering
• Counts as a Directed Elective or Elective for all diplomas

Networking I introduces students to local and wide area networks, home networking, networking standards using the IEEE/OSI Model, network protocols, transmission media, and network architecture/topologies. Security and data integrity are introduced and emphasized throughout this course, which offers students the critical information needed to successfully move into a role as an IT professional supporting networked computers. Concepts covered will include TCP/IP client administration, planning a network topology, configuring the TCP/IP protocol, managing network clients, configuring routers and hubs, as well as creating a wireless LAN.

Principles of Business Management *4562*
BUH260/261
• Grades 11-12
• 2 semesters, 2 credits
• Recommended Prerequisite: Introduction to Business
• Students may be eligible to earn 3 college credits for this course through Ivy Tech Community College. Please see page 15 for details.
• Counts as a Directed Elective or Elective for all diplomas

Principles of Business Management focuses on the roles and responsibilities of managers, as well as the 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.

Principles of Marketing *5914*
BUH250/251
• Grades 11-12
• 2 semesters, 2 credits
• Students may be eligible to earn 3 college credits for this course through Ivy Tech Community College. Please see page 15 for details.
• Counts as a Directed Elective or Elective for all diplomas

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

Web Design *4574*
BUH170
• Grades 10-12
• 1 semester, 1 credit
• Recommended Prerequisites: Introduction to Communications, Digital Applications & Responsibility
• Counts as a Directed Elective or Elective for all diplomas

Web Design is a course that provides instruction in the principles of web design using HTML/XHTML and current/emerging software programs. Areas of instruction include audience analysis, hierarchy layout and design techniques, software integration, and publishing. Instructional strategies should include peer teaching, collaborative instruction, project-based learning activities, and school community projects.

ENGINEERING AND TECHNOLOGY DEPARTMENT

Computers in Design and Production (CADD) *4800*

TEH430/431
• Grades 9-12
• 2 semesters, 2 credits
• Counts as a Directed Elective or Elective for all diplomas

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

Introduction to Communications *4790*

TEH111/112
• Grades 9-12
• 2 semesters, 2 credits
• Counts as a Directed Elective or Elective all diplomas

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

Introduction to Construction *4792*

TEH131/132
• Grades 9-12
• 2 semesters, 2 credits
• Counts as a Directed Elective or Elective for all diplomas

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

Introduction to Manufacturing *4784*

TEH101/102
• Grades 9-12
• 2 semesters, 2 credits
• Counts as a Directed Elective or Elective for all diplomas

Introduction to Manufacturing is a course that specializes in how people use modern manufacturing systems through an introduction to manufacturing technology and its relationship to society, individuals, and the environment. This understanding is developed through

the study of the two major technologies used by all manufacturing enterprises: material processing and management technology. Students will apply the skills and knowledge of using modern manufacturing processes to obtain resources and change them into industrial materials, industrial products, and consumer products. Students will investigate the properties of engineered materials such as: metallics, polymers, ceramics, and composites. After gaining a working knowledge of these materials, students will study six major types of material processes: casting and molding, forming, separating, conditioning, finishing, and assembling.

Introduction to Transportation *4798*

TEH121/122
- Grades 9-12
- 2 semesters, 2 credits
- Counts as a Directed Elective or Elective for all diplomas

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

Robotics Design and Innovation *4728*

TEH370/371
- Grades 9-12
- 2 semesters, 2 credits
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as PBL course for graduation pathways

Robotics Design and Innovation allows students to design, program, and test innovative technological designs related to robotic systems. Topics involve mechanics, pneumatics, control technologies, computer fundamentals, and programmable control technologies. Students design, build, and optimize robots to perform a variety of pre-designated tasks. Individuals or small teams may choose to participate in organized robotic competitions or develop their own events during the course. Through this course, students will investigate exciting career and collegiate programs of study.

PROJECT LEAD THE WAY – ENGINEERING ACADEMY

Greenfield-Central High School has joined with a national pre-engineering program to offer college credit courses that are designed to better prepare students for college engineering coursework. Project Lead The Way, or PLTW, is a collaborative effort of the math, science, and technology departments.

Project Lead The Way has developed a four year sequence of courses which, when combined with college preparatory mathematics and science courses in high school, introduces students to the scope, rigor, and discipline of engineering and engineering technology prior to entering college. It is recommended that students successfully complete Algebra in the 8th grade. Courses are counted as Core 40 directed electives. These can be applied to the Academic Honors Diploma or Technical Honors Diploma. Competencies are defined by Project Lead The Way, Inc. Upon successful completion of each PLTW course and the exit exam, students may receive credits at no cost from the following universities: Purdue University, Indiana State University, IUPUI, University of Southern Indiana, Ivy Tech (dual credit), and Rochester Institute of Technology.

Students must earn a C+ or better in all PLTW - Engineering courses to continue in the program.

Required courses:

9th Grade: EE – Engineering Essentials
10th Grade: POE – Principles of Engineering
11th Grade: DE – Digital Electronics *and* <u>one</u> of the following:
- AE – Aerospace Engineering
- CEA – Civil Engineering and Architecture
- IED – Introduction to Engineering Design

12th Grade: EDD – Engineering Design and Development

CTE Pilot Course: PLTW Engineering Essentials *5239*

TEH152/153
- Grade 9
- 2 semesters, 2 credits

Engineering Essentials will offer a multidisciplinary approach to teaching and learning foundational concepts of engineering practice, providing students opportunities to explore the breadth of engineering career opportunities and experiences, and solve engaging and challenging real-world problems through engineering essentials. By inspiring and empowering students with an understanding of engineering and career opportunities, Engineering Essentials will broaden participation in engineering education and the engineering profession.

PLTW Principles of Engineering *5644*

TEH260/261
- Grade 10-12
- 2 semesters, 2 credits
- Prerequisite: Engineering Essentials
- Students may be eligible to earn 3 college credits for this course through Purdue Polytechnic Institute at Purdue University. Please see page 18 for details.
- Weighted Grade
- Fulfills a Science course requirement for all diplomas
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as a Quantitative Reasoning course

Principles of Engineering is a course that focuses on the process of applying engineering, technological, scientific and mathematical principles in the design, production, and operation of products, structures, and systems. This is a hands-on course designed to provide students interested in engineering careers to explore experiences related to specialized fields such as civil, mechanical, and materials engineering. Students will engage in research, development, planning, design, production, and project management to simulate a career in engineering. The topics of ethics and the impacts of engineering decisions are also addressed. Classroom activities are organized to allow students to work in teams and use modern technological processes, computers, CAD software, and production systems in developing and presenting solutions to engineering problems. Schools may use the PLTW curriculum to meet the standards for this course. Schools that use the curriculum and are part of the Project Lead the Way network must follow all training and data collection requirements.

PLTW Digital Electronics *5538*

TEH350/351
- Grades 11-12
- 2 semesters, 2 credits
- Prerequisites: Engineering Essentials and Principles of Engineering
- Students may be eligible to earn 3 college credits for this course through Purdue Polytechnic Institute at Purdue University. Please see page 18 for details.
- Weighted Grade
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as a Quantitative Reasoning course
- Qualifies as PBL course for graduation pathways

Digital Electronics is a course of study in applied digital logic that encompasses the design and application of electronic circuits and devices found in video games, watches, calculators, digital cameras, and thousands of other devices. Instruction includes the application of engineering and scientific principles as well as the use of Boolean algebra to solve design problems. Using computer software that reflects current industry standards, activities should provide opportunities for students to design, construct, test, and analyze simple and complex digital circuitry software that will be used to develop and evaluate the product design. This course engages students in critical thinking and problem-solving skills, time management and teamwork skills. Schools may use the PLTW curriculum to meet the standards for this course. Schools that use the curriculum and are part of the Project Lead the Way network must follow all training and data collection requirements.

PLTW Aerospace Engineering *5518*

TEH460/461
- Grades 11-12
- 2 semesters, 2 credits
- Prerequisites: Engineering Essentials and Principles of Engineering

- Students may be eligible to earn 3 college credits for this course through Purdue Polytechnic Institute at Purdue University. Please see page 18 for details.
- Weighted Grade
- Fulfills a Science course requirement for all diplomas
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as a Quantitative Reasoning course
- Qualifies as PBL course for graduation pathways

Aerospace Engineering should provide students with the fundamental knowledge and experience to apply mathematical, scientific, and engineering principles to the design, development, and evolution of aircraft, space vehicles, and their operating systems. Emphasis should include investigation and research on flight characteristics, analysis of aerodynamic design, and impact of this technology on the environment. Classroom instruction should provide creative thinking and problem-solving activities using software that allows students to design, test, and evaluate a variety of air and space vehicles, their systems, and launching, guidance, and control procedures. Schools may use the PLTW curriculum to meet the standards for this course. Schools that use the curriculum and are part of the Project Lead the Way network must follow all training and data collection requirements.

PLTW Civil Engineering and Architecture *5650*

TEH500/501

- Grades 11-12
- 2 semesters, 2 credits
- Prerequisites: Engineering Essentials and Principles of Engineering
- Students may be eligible to earn 3 college credits for this course through Purdue Polytechnic Institute at Purdue University. Please see page 18 for details.
- Weighted Grade
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as a Quantitative Reasoning course
- Qualifies as PBL course for graduation pathways

Civil Engineering and Architecture introduces students to the fundamental design and development aspects of civil engineering and architectural planning activities. Application and design principles will be used in conjunction with mathematical and scientific knowledge. Computer software programs should allow students opportunities to design, simulate, and evaluate the construction of buildings and communities. During the planning and design phases, instructional emphasis should be placed on related transportation, water resource, and environmental issues. Activities should include the preparation of cost estimates as well as a review of regulatory procedures that would affect the project design. Schools may use the PLTW curriculum to meet the standards for this course. Schools that use the curriculum and are part of the Project Lead the Way network must follow all training and data collection requirements.

PLTW Introduction to Engineering Design *4802*

TEH160/161

- Grades 11-12
- 2 semesters, 2 credits
- Prerequisites: Engineering Essentials and Principles of Engineering
- Students may be eligible to earn 3 college credits for this course through Purdue Polytechnic Institute at Purdue University. Please see page 18 for details.
- Weighted Grade
- Counts as a Directed Elective or Elective for all diplomas

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

PLTW Engineering Design and Development *5698*

TEH660/661

- Grade 12
- 2 semesters, 2 credits

• Prerequisites: Engineering Essentials, Principles of Engineering Design, and one specialty course
• Weighted Grade
• Counts as a Directed Elective or Elective for all diplomas
• Qualifies as a Quantitative Reasoning course
• Qualifies as PBL course for graduation pathways

Engineering Design and Development is an engineering research course in which students work in teams to research, design, test, and construct a solution to an open-ended engineering problem. The product development life cycle and a design process are used to guide the team to reach a solution to the problem. The team and/or individuals communicate(s) their solution to a panel of stakeholders at the conclusion of the course. As the capstone course in the Engineering Pathway, EDD engages students in critical thinking, problem-solving, time management, and teamwork skills. Schools may use the PLTW curriculum to meet the standards for this course. Schools that use the curriculum and are part of the Project Lead the Way network must follow all training and data collection requirements.

ENGLISH DEPARTMENT

Advanced Speech & Communication *1078*
COMM 210: Fundamentals of Public Speaking

ENH301
• Grade 12
• 1 semester, 1 credit
• Weighted Grade
• Students can earn 3 college credit hours from Ball State University
• Fulfills an English/Language Arts requirement for all diplomas

Advanced Speech and Communication, a course based on the Indiana Academic Standards for English/Language Arts and emphasizing the High School Speech and Communication Standards, is the study and application of skills in listening, oral interpretation, media communications, research methods, and oral debate. Students deliver different types of oral and multimedia presentations, including speeches to inform, to motivate, to entertain, and to persuade through the use of impromptu, extemporaneous, memorized, or manuscript delivery. This course is dual credit through Ball State University and is a University Core Curriculum course that focuses on communication concepts and skills with the goals of helping students understand basic communication principles, providing them with the opportunity to improve their own oral communication skills, and enhancing their awareness of the role of communication in culture. An emphasis is placed on preparing, selecting, organizing, and delivering oral messages, as well as analyzing and evaluating the speaking-listening process.

AP English Language and Composition *1056*

ENH660/661
• Grades 11-12
• 2 semesters, 2 credits
• Weighted Grade
• Prerequisites: High Ability/Honors English 9 and High Ability/Honors English 10, other literature, language, composition, and speech courses, or teacher recommendation. Students should be able to read and comprehend college-level texts and apply the conventions of Standard Written English in their writing.
• Fulfills an English/Language Arts requirement for all diplomas

AP English Language and Composition is a course based on content established and copyrighted by the College Board. The course focuses on the development and revision of evidence-based analytic and argumentative writing and the rhetorical analysis of nonfiction texts. The course aligns to an introductory college-level rhetoric and writing curriculum, which requires students to develop evidence-based analytic and argumentative essays that proceed through several stages or drafts. Students evaluate, synthesize, and cite research to support their arguments. Throughout the course, students develop a personal style by making appropriate grammatical choices. Additionally, students read and analyze the rhetorical elements and their effects in non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods.

Creative Writing *1092*

ENH440

• Grades 11-12
• 1 semester, 1 credit
• Fulfills an English/Language Arts requirement for all diplomas

Creative Writing, a course based on the Indiana Academic Standards for English/Language Arts, is a study and application of the rhetorical writing strategies for prose and poetry. Using the writing process, students demonstrate a command of vocabulary, the nuances of language and vocabulary, English language conventions, an awareness of the audience, the purposes for writing, and the style of their own writing. The course can be offered in conjunction with a literature course or schools may embed Indiana Academic Standards for English/Language Arts reading standards within the curriculum.

English 9 *1002*

ENH110/111
• Grade 9
• 2 semesters, 2 credits
• Fulfills an English/Language Arts requirement for all diplomas

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

Honors English 9 *1002*

ENH120/121

Honors English 9 (High Ability) *1002*

ENH624/625
• Grade 9
• 2 semesters, 2 credits
• Fulfills an English/Language Arts requirement for all diplomas
• The course content for the Honors class is significantly more rigorous than the state approved course. Honors-level courses must be standards-based, have defined criteria for student admission to the course as well as clear expectations of student outcomes, and include a culminating honors project that reflects understanding of the Honors course content.

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

Honors English 9 (High Ability) is designed for the verbally talented. Students will explore significant literary works by world authors. The emphasis at this level is on academic and creative writing of various types, including expository and persuasive writing. There will be rigorous study of vocabulary and self-directed learning in grammar and syntax. Working individually or as part of the group process, students will develop problem-solving and critical thinking skills by completing projects related to the curriculum. In addition to the Honors English 9 curriculum, the High Ability students are expected to complete a Shakespearean research project and compete in a Shakespearean monologue competition.

English 10 *1004*

ENH210/211
• Grade 10
• 2 semesters, 2 credits
• Prerequisite: English 9
• Fulfills an English/Language Arts requirement for all diplomas

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

Honors English 10 *1004*

ENH220/221

Honors English 10 (High Ability) *1004*

ENH626/627

- 2 semesters, 2 credits
- Prerequisite: Honors English 9, Honors English 9 (HAE), and/or approval of instructor/department chair
- Fulfills an English/Language Arts requirement for all diplomas
- The course content for the Honors class is significantly more rigorous than the state approved course. Honors-level courses must be standards-based, have defined criteria for student admission to the course as well as clear expectations of student outcomes, and include a culminating honors project that reflects understanding of the Honors course content.

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

Honors English 10 (HAE) is designed for the verbally talented. Writing is the main focus in this course. Students must master the fine points of a good prose style that will enable them to communicate clearly and effectively whether expressing personal ideas or writing to investigate and propose solutions to social problems. Two research papers assigned during the year will improve the student's grasp of research skills. In addition to a good prose style, student writing must exemplify critical thinking and a logical synthesis of ideas and literary concepts. In addition to the Honors English 10 curriculum, the High Ability students are expected to do the following: identify "found" poetry and create a poetry notebook, put poems to music, complete a group project on the presentation of a novel, and complete an activity on the explication of passages.

English 11 *1006*

ENH312/313

- Grade 11
- 2 semesters, 2 credits
- Prerequisites: English 9 and English 10

Honors English 11 *1006*

ENH322/323

- Grade 11
- 2 semesters, 2 credits
- Prerequisites: Honors English 9 and Honors English 10
- Fulfills an English/Language Arts requirement for all diplomas
- The course content for the Honors class is significantly more rigorous than the state approved course. Honors-level courses must be standards-based, have defined criteria for student admission to the course as well as clear expectations of student outcomes, and include a culminating honors project that reflects understanding of the Honors course content.

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

English 12 *1008*

ENH412/413

- Grade 12
- 2 semesters, 2 credits
- Prerequisites: English 9, English 10, and English 11
- Fulfills an English/Language Arts requirement for all diplomas

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

English 12, Dual Credit *1008*
ENGL 111: English Composition

ENH410

- Grade 12
- 1 semester, 1 credit
- Prerequisites: A grade of "C" or better in Honors English 11 or AP English Language & Comp, or teacher recommendation. Students should be able to read and comprehend college-level texts and apply the conventions of Standard Written English in their writing.
- Weighted Grade
- Students can earn 3 college credit hours from Ivy Tech Community College. Please see page 15 for details.
- Fulfills an English/Language Arts requirement for all diplomas

English 12, an integrated English course based on the Indiana Academic Standards for English/Language Arts for Grades 11-12, is a study of language, literature, composition, and oral communication focusing on an exploration of point of view or perspective across a wide variety of genres. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to representative works of historical or cultural significance in classic and contemporary literature balanced with nonfiction. Students write narratives, responses to literature, academic essays (e.g. analytical, persuasive, expository, summary), and more sustained research assignments incorporating visual information in the form of pictures, graphs, charts and tables. Students write and deliver grade-appropriate multimedia presentations and access, analyze, and evaluate online information. This course is dual credit through Ivy Tech Community College. English Composition is designed to develop students' abilities to think, organize, and express their ideas clearly and effectively in writing. This course incorporates reading, research, and critical thinking. Emphasis is placed on the various forms of expository writing such as process, description, narration, comparison, analysis, persuasion, and argumentation. A research paper is required. Numerous in-class writing activities are required in addition to extended essays written outside of class.

English 12, Dual Credit *1008*
W131: Reading, Writing, and Inquiry I (ACP)

ENH420

- Grade 12
- 1 semester, 1 credit
- Prerequisites: A grade of "C" or better in Honors English 11 or AP English Language & Comp, or teacher recommendation. Students should be able to read and comprehend college-level texts and apply the conventions of Standard Written English in their writing.
- Weighted Grade
- Students must have a minimum 2.7 GPA to earn college credit for this course. The expectation is for the student to take this course for dual credit and officially register for the course with Indiana University.
- Students can earn 3 college credit hours from Indiana University-Bloomington
- Fulfills an English/Language Arts requirement for all diplomas

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

Bloomington. W131 teaches the skills of critical reading, thinking, and writing to help students meaningfully engage artifacts, events, and issues in our world. The course builds students' abilities to read written and cultural texts critically, to analyze those texts in ways that engage both students' own experiences and the perspectives of others, and to write about those texts for a range of audiences and purposes as a means of participating in broader conversations. Assignments emphasize the analysis and synthesis of sources in making and developing claims. In addition, because paper assignments promote experience with different kinds of writing for various audiences, students learn to develop important rhetorical skills, such as developing a purpose, identifying a viable audience, writing to appeal to that audience, and negotiating the language requirements for success with selected genres.

Etymology *1060*

ENH230
- Grades 11-12
- 1 semester, 1 credit
- Recommended Prerequisites: English 9 and English 10
- Fulfills an English/Language Arts requirement for all diplomas

Etymology, a language studies course based on the Indiana Academic Standards for English/Language Arts, is the study and application of the derivation of English words and word families from their roots in ancient and modern languages (Latin, Greek, Germanic, and Romance Languages). Students analyze meanings of English words by examining roots, prefixes, and suffixes. Students analyze the connotative and denotative meaning of words in a variety of contexts and the reasons for language change. Students write about word history and semantics in texts that require etymological sensitivity, such as Renaissance poetry or works in translation.

Film Literature *1034*

ENH430
- Grades 11-12
- 1 semester, 1 credit
- Recommended Prerequisites: English 9 and English 10
- Fulfills an English/Language Arts requirement for all diplomas
- Cannot be used for NCAA initial-eligibility certification

Film Literature, a course based on the Indiana Academic Standards for English/Language Arts, is a study of how literature is adapted for film or media and includes role playing as film directors for selected screen scenes. Students read about the history of film, the reflection or influence of film on the culture, and issues of interpretation, production and adaptation. Students examine the visual interpretation of literary techniques and auditory language in film and the limitations or special capacities of film versus text to present a literary work. Students analyze how films portray the human condition and the roles of men and women and the various ethnic or cultural minorities in the past and present.

Journalism *1080*

ENH130
- Grades 9-12
- 1 semester, 1 credit
- Counts as an Elective for all diplomas
- English/Language Arts credit: If Journalism course work addresses the Indiana Academic Standards for English/Language Arts, the credit accrued can be counted as part of the eight (8) required English/Language Arts credits for all diplomas.

Journalism, a course based on the Indiana Academic Standards for English/Language Arts and the Indiana High School Journalism Standards, is a study of news elements, journalism history, First Amendment law, ethics, fact and opinion, copy editing, news, and features as they apply to print and digital media products. It includes a comparison study of journalistic writing to other types of English writing with practical application of news, features, editorials, reviews, columns, and digital media writing forms.

Language Arts Lab *1010*

ENH102/103
- Grades 9-12
- 1-8 credits. This course allows for successive semesters of instruction at advancing levels.
- Counts as an Elective for all diplomas

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

Novels (Contemporary Young Adult Literature) *1042*

ENH432

- Grades 11-12
- 1 semester, 1 credit
- Recommended Prerequisites: English 9 and English 10
- Fulfills an English/Language Arts requirement for all diplomas

Novels, a course based on the Indiana Academic Standards for English/Language Arts, is a study of the distinct features of the novel, such as narrative and fictional elements of setting, conflict, climax, and resolution, and may be organized by historical periods, themes, or authors. Students examine novels of a given period, such as Victorian, the Modern Period, or Contemporary Literature, and what distinguishes novels from short stories, epics, romances, biographies, science fiction, and others. Students analyze novels by various important authors from the past and present or sets of novels from a specific era or across several eras.

Student Media, Newspaper *1086*

ENH330/331

Student Media, Yearbook *1086*

ENH340/341

- Grades 9-12
- 2 semesters, 2 credits (8 credits maximum). The nature of this course allows for successive semesters of instruction
- Recommended Prerequisite: Journalism
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills the Fine Arts requirement for the Core 40 with Academic Honors diploma
- Qualifies as PBL course for graduation pathways

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

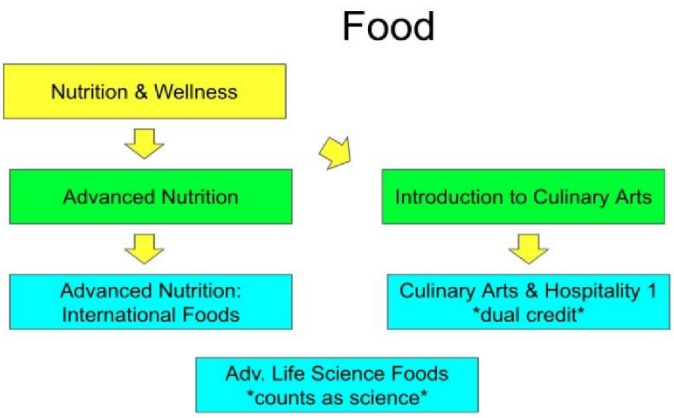
Technical Communication *1096*

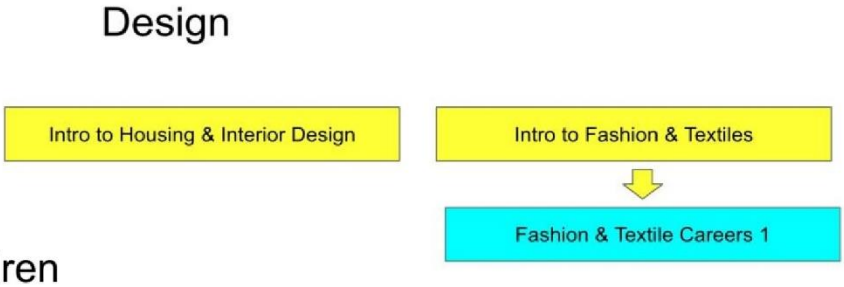
ENH450

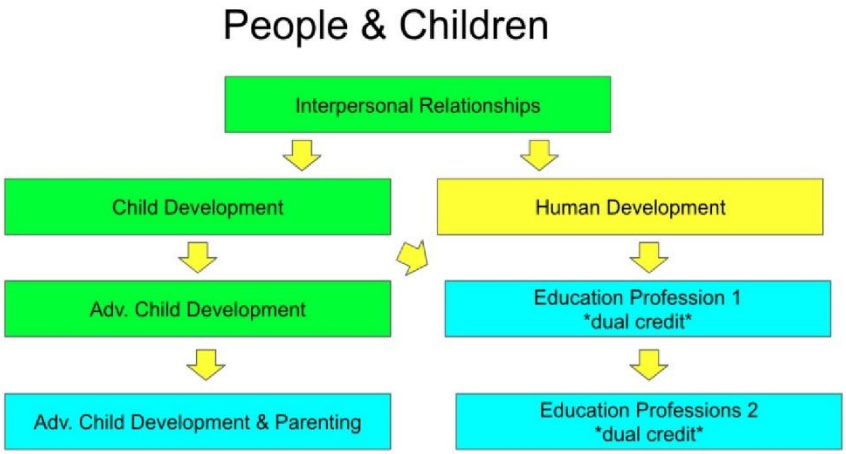
- Grade 12
- 1 semester, 1 credit
- Fulfills an English/Language Arts requirement for all diplomas
- Cannot be used for NCAA initial-eligibility certification

Technical Communications, a course based on the Indiana Academic Standards for English/Language Arts, is the study and application of the processes and conventions needed for effective technical writing-communication. Using the writing process, students demonstrate a command of vocabulary, English language conventions, research and organizational skills, an awareness of the audience, the purpose for writing, and style.

FAMILY AND CONSUMER SCIENCE DEPARTMENT







Advanced Child Development *5360*

FCH225

CIP Code 19.0701

• Grades 10-12

• 1 semester, 1 credit

• Recommended Prerequisite: Child Development

• Counts as a Directed Elective or Elective for all diplomas

Advanced Child Development is for those students interested in life foundations, academic enrichment, and/or careers related to knowledge of children, child development, and nurturing of children. This course addresses issues of child development from age 4 through age 8 (grade 3). It builds on the Child Development course, which is a prerequisite. Advanced Child Development includes the study of professional and ethical issues in child development; child growth and development; child development theories, research, and best practices; child health and wellness; teaching and guiding children; special conditions affecting children; and career exploration in child development and nurturing. A project-based approach that utilizes higher order thinking, communication, leadership, management, and fundamentals to college and career success is recommended in order to integrate these topics into the study of child development. Direct, concrete mathematics and language arts proficiencies will be applied. Service learning, introductory laboratory/field experiences with children in preschool and early elementary school settings, and other authentic applications are

strongly recommended. This course provides a foundation for continuing and post-secondary education in all career areas related to children, child development, and nurturing of children.

Advanced Child Development - Parenting *5360*

FCH226
CIP Code 19.0701
• Grades 10-12
• 1 semester, 1 credit
• Recommended Prerequisites: Child Development
• Counts as a Directed Elective or Elective for all diplomas

Advanced Child Development and Parenting is for those students interested in life foundations, academic enrichment, and/or careers related to knowledge of children, child development, and nurturing of children. This course addresses issues of child development from age 4 through age 8 (grade 3). It builds on the Child Development course, which is a prerequisite. Advanced Child Development and Parenting includes the study of professional and ethical issues in child development; child growth and development; child development theories, research, and best practices; child health and wellness; teaching and guiding children; special conditions affecting children; and career exploration in child development and nurturing. A project-based approach that utilizes higher order thinking, communication, leadership, management, and fundamentals to college and career success is recommended in order to integrate these topics into the study of child development. Direct, concrete mathematics and language arts proficiencies will be applied. Service learning, introductory laboratory/field experiences with children in preschool and early elementary school settings, and other authentic applications are strongly recommended. This course provides a foundation for continuing and post-secondary education in all career areas related to children, child development, and nurturing of children.

Advanced Life Science: Foods (L) *5072*

FCH302/303
CIP Code 01.1001
• Grades 11-12
• 2 semesters, 2 credits, 2 semesters required
• Recommended Prerequisites: Introduction to Agriculture, Food, and Natural Resources, Nutrition and Wellness, Advanced Nutrition and Wellness, Biology, Chemistry
• Fulfills a Core 40 Science requirement for all diplomas
• Qualifies as a Quantitative Reasoning course

Advanced Life Science: Foods is a course that provides students with opportunities to participate in a variety of activities including laboratory work. This is a standards-based, interdisciplinary science course that integrates biology, chemistry, and microbiology in the context of foods and the global food industry. Students enrolled in this course formulate, design, and carry out food-base laboratory and field investigations as an essential course component. Students understand how biology, chemistry, and physics principles apply to 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 completing this course will be able to apply the principles of scientific inquiry to solve problems related to biology, physics, and chemistry in the context of highly advanced industry applications of foods.

Advanced Nutrition and Wellness *5340*

FCH201
CIP Code 19.0504
• Grades 9-12
• 1 semester, 1 credit
• Recommended Prerequisite: Nutrition and Wellness
• Counts as a Directed Elective or Elective for all diplomas

Advanced Nutrition and Wellness is a course which provides an extensive study of nutrition. This course is recommended for all students wanting to improve their nutrition and learn how nutrition affects the body across the lifespan. Advanced Nutrition and Wellness is an especially appropriate course for students interested in careers in the medical field, athletic training, and dietetics. This course builds on the foundation established in Nutrition and Wellness, which is a required prerequisite. This is a project-based course, utilizing higher-order thinking, communication, leadership, and management processes. Topics include extensive study of major nutrients, nutritional standards across the lifespan, influences on nutrition/food choices, technological and scientific influences, and

career exploration in this field. Laboratory experiences will be utilized to develop food handling and preparation skills, and attention will be given to nutrition, food safety, and sanitation. This course is the second in a sequence of courses that provide a foundation for continuing and post-secondary education in all career areas related to nutrition, food, and wellness.

Advanced Nutrition International *5340*

FCH301
CIP Code 19.0504
- Grades 10-12
- 1 semester, 1 credit
- Recommended Prerequisites: Nutrition and Wellness, Advanced Nutrition and Wellness
- Counts as a Directed Elective or Elective for all diplomas

Advanced Nutrition International is a course which provides an extensive study of foods and etiquette from around the world. This course is recommended for all students wanting to improve their knowledge of different cultures and try a variety of unique foods. This course builds on the foundation established in Nutrition and Wellness and Advanced Nutrition, which is a required prerequisite. This is a project-based course, utilizing higher-order thinking, communication, leadership, and management processes. Topics include extensive study of the following countries: United States Regional Foods, Latin America, The British Isles, France, Germany, Scandinavia, Spain, Italy, Greece, Japan, China, India, and Russia. Laboratory experiences will be utilized to develop food handling and preparation skills, and attention will be given to nutrition, food safety, and sanitation as well as preparation of cultural foods. This course is the third in a sequence of courses that provide a foundation for continuing and post-secondary education in all career areas related to nutrition, food, and wellness. This second semester of Advanced Nutrition focuses on cuisines from around the world.

Child Development *5362*

FCH224
CIP Code 19.0706
- Grades 10-12
- 1 semester, 1 credit
- Qualifies as one of the FACS courses a student can take to waive the Health & Wellness graduation requirement. To qualify for a waiver, a student must take three of the approved courses. For more information, please see 511 IAC 6-7.1-4(c)(6).
- Counts as a Directed Elective or Elective for all diplomas

Child Development is an introductory course for all students as a life foundation and academic enrichment. It is especially relevant for students interested in careers that draw on knowledge of children, child development, and nurturing of children. This course addresses issues of child development from conception through age 3. It includes the study of prenatal development and birth, growth and development of children, child care giving and nurturing, and support systems for parents and caregivers. A project-based approach that utilizes higher order thinking, communication, leadership, management processes, and fundamentals to college and career success is recommended in order to integrate these topics into the study of child development. Direct, concrete mathematics and language arts proficiencies will be applied. Authentic applications such as introductory laboratory/field experiences with young children and/or service learning that build knowledge of children, child development, and nurturing of children are strongly recommended. This course provides the foundation for continuing and post-secondary education in all career areas related to children, child development, and nurturing of children.

Culinary Arts and Hospitality I *5440*

FCH344/345
- Grades 11-12
- 2 semesters, 2 credits, 2 semesters required
- Required Prerequisites: Nutrition and Wellness, Advanced Nutrition and Wellness, and Introduction to Culinary Arts and Hospitality
- Students may be eligible to earn 2 college credits for this course through Ivy Tech Community College. Please see page 15 for details.
- Counts as a Directed Elective or Elective for all diplomas

Culinary Arts and Hospitality I 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; food preparation techniques and applications; principles of purchasing, storage, preparation, and service of food and food products; application of sanitation and safety principles to

maintain safe and healthy food service and hospitality environments; use and maintenance of related tools and equipment; and application of management principles in foodservice 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, 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 and Hospitality teacher. Articulation with postsecondary programs is encouraged.

Education Professions I *5408*

FCH350/351
CIP Code 13.1206
- Grades 11-12
- 2 semesters, 2 credits, 2 semesters required
- Prerequisite: Must complete application and interview process
- Recommended Prerequisites: Child Development, Advanced Child Development, Interpersonal Relationships, and Nutrition and Wellness
- Students may be eligible to earn 3 college credits for this course through Ivy Tech Community College. Please see page 15 for details.
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Education Professions I 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 in their field experiences by the Education Professions I teacher. Articulation with postsecondary programs is encouraged.

Education Professions II *5404*

FCH352/353
CIP Code 13.1210
- Grade 12
- 2 semesters, 2 credits, 2 semesters required
- Required Prerequisite: Education Professions I
- Students may be eligible to earn 3 college credits for this course through Ivy Tech Community College. Please see page 15 for details.
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Education Professions II prepares students for employment in education and related careers and provides the foundation for study in higher education in these career areas. 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. Field experiences in one or more classroom settings, résumés, and career portfolios are required components. A standards-based plan guides the students' field experiences. Students are monitored in their field experiences by the Education Professions II teacher. Articulation with postsecondary programs is encouraged.

Fashion and Textiles Careers I *5420*

FCH260/261
- Grades 11-12
- 2 semesters, 2 credits, 2 semesters required
- Recommended Prerequisite: Introduction to Fashion and Textiles
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways
- ***Students are expected to pay for materials for the course that are above and beyond the course fees***

Fashion and Textiles Careers I prepares students for occupations and higher education programs of study related to the entire spectrum

of careers in the fashion industry. Major topics include: review of the dimensions of clothing, investigation of design elements and principles, evaluating manufacturing process, reviewing the processes from fiber production to items of clothing being worn, overall review of the textile and apparel industry, investigation of fashion designers, customer relations and best practices, fashion merchandising, forecasting trends, impact of social media on the fashion industry, and career exploration and experience. A project based approach with commercial/industry applications is a key component of this course of study. Student experiences may be either school-based, on-the-job, or a combination of the two. Work-based experiences in the fashion industry are strongly encouraged. A standards-based plan guides the students' experiences. This course is a core component of four-year career plans for the career clusters of Personal & Commercial Services, Manufacturing & Processing, and Art, A/V Technology & Communications. It is recommended for students with interests in apparel, textiles, and fashion career pathways and provides the foundation for continuing study. Students are monitored in their experiences by the Fashion and Textiles Careers I teacher.

Human Development and Wellness *5366*

FCH310/311
CIP Code 19.0799
- Grades 10-12
- 2 semesters, 2 credits
- Qualifies as one of the FACS courses a student can take to waive the Health & Wellness graduation requirement. To qualify for a waiver, a student must take three of the approved courses. For more information, please see 511 IAC 6-7.1-4(c)(6).
- Counts as a Directed Elective or Elective for all diplomas

Human Development and Wellness is valuable for all students as a life foundation and academic enrichment. It is especially relevant for students interested in careers impacted by individuals' physical, social, emotional, and moral development and wellness across the lifespan. Major topics include: principles of human development and wellness; impact of family on human development and wellness; factors that affect human development and wellness; practices that promote human development and wellness; managing resources and services related to human development and wellness; and career exploration in human development and wellness. Life events and contemporary issues addressed in this course include, but are not limited to: change, stress, abuse, personal safety, and the relationships among lifestyle choices, health and wellness conditions, and diseases. A project-based approach that utilizes higher order thinking, communication, leadership, and management processes is recommended in order to integrate the study of these topics. Authentic applications through service learning are encouraged.

Interpersonal Relationships *5364*

FCH130
CIP Code 19.0704
- Grades 9-12
- 1 semester, 1 credit
- Qualifies as one of the FACS courses a student can take to waive the Health & Wellness graduation requirement. To qualify for a waiver, a student must take three of the approved courses. For more information, please see 511 IAC 6-7.1-4(c)(6).
- Counts as a Directed Elective or Elective for all diplomas

Interpersonal Relationships is an introductory course that is especially relevant for students interested in careers that involve interacting with people. It is also valuable for all students as a life foundation and academic enrichment. This course addresses knowledge and skills needed for positive and productive relationships in career, community, and family settings. Major course topics include communication skills; leadership, teamwork, and collaboration; conflict prevention, resolution, and management; building and maintaining relationships; and individual needs and characteristics and their impacts on relationships. A project-based approach that utilizes higher order thinking, communication, leadership, and management processes, and fundamentals to college and career success is recommended in order to integrate these topics into the study of interpersonal relationships. Direct, concrete language arts proficiencies will be applied. Service learning and other authentic applications are strongly recommended. This course provides a foundation for continuing and post-secondary education for all career areas that involve interacting with people both inside and outside of a business or organization, including team members, clients, patients, customers, and the general public.

Introduction to Culinary Arts and Hospitality *5438*

FCH342/343
- Grades 10-12
- 2 semesters, 2 credits
- Recommended Prerequisites: Nutrition and Wellness, Advanced Nutrition and Wellness

• Counts as a Directed Elective or Elective for all diplomas

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

Introduction to Fashion and Textiles *5380*

FCH152/153
CIP Code 19.0910
• Grades 9-12
• 1 semester, 1 credit
• Counts as a Directed Elective or Elective for all diplomas
• Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma

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

Introduction to Housing and Interior Design *5350*

FCH252/253
CIP Code 19.0601
• Grades 9-12
• 1 semester, 1 credit
• Counts as a Directed Elective or Elective for all diplomas
• Fulfills a Fine Arts requirement for the Core 40 with Academic Honors Diploma

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

Nutrition and Wellness *5342*

FCH100
CIP Code 19.0501
• Grades 9-12
• 1 semester, 1 credit
• Qualifies as one of the FACS courses a student can take to waive the Health & Wellness graduation requirement. To qualify for a

waiver, a student must take three of the approved courses. For more information, please see 511 IAC 6-7.1-4(c)(6).
• Counts as a Directed Elective or Elective for all diplomas

Nutrition and Wellness is an introductory course valuable for all students as a life foundation and academic enrichment. It is especially relevant for students interested in careers related to nutrition, food, and wellness. This is a nutrition class that introduces students to only the basics of food preparation so they can become self-sufficient in accessing healthy and nutritious foods. Major course topics include: nutrition principles and applications; influences on nutrition and wellness; food preparation, safety, and sanitation; and science, technology and careers in nutrition and wellness. A project-based approach that utilizes higher order thinking, communication, leadership, management processes, and fundamentals to college and career success is recommended in order to integrate these topics into the study of nutrition, food, and wellness. Food preparation experiences are a required component. Direct, concrete mathematics and language arts proficiencies will be applied. This course is the first in a sequence of courses that provide a foundation for continuing and post-secondary education in all career areas related to nutrition, food, and wellness.

FINE/VISUAL ARTS DEPARTMENT

AP Art History *4025*

ARH606/607
• Grades 10-12
• 2 semesters, 2 credits
• Weighted Grade
• Fulfills the Fine Arts requirement for the Core 40 Academic Honors Diploma
• Counts as a Directed Elective or Elective for all diplomas

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

AP 2-D Art and Design *4050*

ARH602/603
• Grade 12
• 2 semesters, 2 credits
• Weighted Grade
• Prerequisites: Advanced laboratory 2-D visual arts courses
• Interview and portfolio review by instructor required
• Fulfills the Fine Arts requirement for the Core 40 with Academic Honors Diploma
• Counts as a Directed Elective or Elective for all diplomas
• Qualifies as a PBL course for graduation pathways (a portfolio must be submitted)

AP 2-D Art and Design is a course established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. **This course is designed for students who are seriously interested in the practical experience of art.** The AP Art Program consists of three portfolio exams—2-D Design, 3-D Design, and Drawing—corresponding to the college foundation courses. Portfolios allow flexibility of coursework while guiding students to produce college-level quality, artistic investigation, and breadth of work. The portfolios correspond to most college foundation courses. Students submit portfolios for evaluation at the end of the school year. Students' portfolios demonstrate skills and ideas developed, refined, and applied throughout the course to produce visual compositions. Students may choose to submit any or all of the portfolios. Portfolios are evaluated based on standardized scoring descriptors aligned with skills and understanding developed in college foundation courses. The portfolio will have two sections: Sustained Investigation and Selected Works.

AP 3-D Art and Design *4052*

ARH604/605
• Grade 12
• 2 semesters, 2 credits
• Weighted Grade
• Prerequisites: Advanced laboratory 3-D visual arts courses

• Interview and portfolio review by instructor required
• Fulfills the Fine Arts requirement for the Core 40 Academic Honors Diploma
• Counts as a Directed Elective or Elective for all diplomas
• Qualifies as a PBL course for graduation pathways (a portfolio must be submitted)

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

AP Drawing *4048*

ARH600/601
• Grade 12
• 2 semesters, 2 credits
• Weighted Grade
• Recommended Prerequisites: Advanced laboratory visual arts courses
• Interview and portfolio review by instructor required
• Fulfills the Fine Arts requirement for the Core 40 Academic Honors Diploma
• Counts as a Directed Elective or Elective for all diplomas
• Qualifies as a PBL course for graduation pathways (a portfolio must be submitted)

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

Introduction to Three-Dimensional Art (L) *4002*

ARH110
• Grades 9-12
• 1 semester, 1 credit
• Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
• Counts as a Directed Elective or Elective for all diplomas

Introduction to Three-Dimensional Art is a course based on the Indiana Academic Standards for Visual Art. Students taking this course engage in sequential learning experiences that encompass art history, art criticism, aesthetics, production, and integrated studies and lead to the creation of portfolio quality works. Students explore historical and cultural background and connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; create three-dimensional works of art, reflect upon the outcomes, and revise their work; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. They identify ways to utilize and support art museums, galleries, studios, and community resources.

Advanced Three-Dimensional Art (L) *4006*

ARH111
• Grades 9- 12
• 1 semester, 1 credit
• Recommended Prerequisite: Introduction to Three-Dimensional Art
• Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
• Counts as a Directed Elective or Elective for all diplomas

Advanced Three-Dimensional Art is a course based on the Indiana Academic Standards for Visual Art. Students in this course build on the sequential learning experiences of Introduction to Three-Dimensional Art that encompass art history, art criticism, aesthetics, and

production, and lead to the creation of portfolio quality works. Students explore historical and cultural background and connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; create three-dimensional works of art, reflect upon the outcomes, and revise their work; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. They identify ways to utilize and support art museums, galleries, studios, and community resources.

Introduction to Two-Dimensional Art (L) *4000*

ARH100
- Grades 9-12
- 1 semester, 1 credit
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Counts as a Directed Elective or Elective for all diplomas

Introduction to Two-Dimensional Art is a course based on the Indiana Academic Standards for Visual Art. Students taking this course engage in sequential learning experiences that encompass art history, art criticism, aesthetics, production, and integrated studies, and lead to the creation of portfolio quality works. Students explore historical and cultural background and connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; create two-dimensional works of art, reflect upon the outcomes, and revise their work; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. They identify ways to utilize and support art museums, galleries, studios, and community resources.

Advanced Two-Dimensional Art (L) *4004*

ARH101
- Grades 9-12
- 1 semester, 1 credit
- Recommended Prerequisite: Introduction to Two-Dimensional Art
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Counts as a Directed Elective or Elective for all diplomas

Advanced Two-Dimensional Art is a course based on the Indiana Academic Standards for Visual Art. Students in this course build on the sequential learning experiences of Introduction to Two-Dimensional Art that encompass art history, art criticism, aesthetics, and production, and lead to the creation of portfolio quality works. Students explore historical and cultural background and connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; create two-dimensional works of art, reflect upon the outcomes, and revise their work; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. They identify ways to utilize and support art museums, galleries, studios, and community resources.

Ceramics I (L) *4040*

ARH212
- Grades 10-12
- 1 semester, 1 credit

Ceramics II (L) *4040*

ARH214
- Grades 10-12
- 1 semester, 1 credit

Ceramics III (L) *4040*

ARH312
- Grades 11-12
- 1 semester, 1 credit
- The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized
- Recommended Prerequisites: Introduction to Three-Dimensional Art, Advanced Three-Dimensional Art
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Counts as a Directed Elective or Elective for all diplomas

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

and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art-related careers.

Drawing I (L) *4060*
ARH202
• Grades 10-12
• 1 semester, 1 credit

Drawing II (L) *4060*
ARH206
• Grades 10-12
• 1 semester, 1 credit
• The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized
• Recommended Prerequisites: Introduction to Two-Dimensional Art, Advanced Two-Dimensional Art, and Drawing I
• Students may be eligible to earn 3 college credits for these courses through Ivy Tech Community College. **Students must take both Drawing I and Drawing II within the same school year to earn the college credit**. Please see page 15 for details.
• Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
• Counts as a Directed Elective or Elective for all diplomas

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

Drawing III (L) *4060*
ARH314
• Grades 11-12
• 1 semester, 1 credit

Drawing IV (L) *4060*
ARH316
• Grades 11-12
• 1 semester, 1 credit
• The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized
• Recommended Prerequisites: Introduction to Two-Dimensional Art, Advanced Two-Dimensional Art, Drawing I, and Drawing II
• Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
• Counts as a Directed Elective or Elective for all diplomas

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

Jewelry (L) *4042*
ARH220
• Grades 10-12
• 1 semester, 1 credit
• Recommended Prerequisites: Introduction to Three-Dimensional Art, Advanced Three-Dimensional Art
• Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
• Counts as a Directed Elective or Elective for all diplomas

Jewelry is a course based on the Indiana Academic Standards for Visual Art. Students in Jewelry engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works.

Students create works of jewelry design and fabrication techniques including sawing, piercing, filing, and soldering. They reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art-related careers.

Painting I (L) ***4064***
ARH315
• Grades 10-12
• 1 semester, 1 credit

Painting II (L) ***4064***
ARH317
• Grades 10-12
• 1 semester, 1 credit
• The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized
• Recommended Prerequisite: Introduction to Two-Dimensional Art, Advanced Two-Dimensional Art, and Painting I
• Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
• Counts as a Directed Elective or Elective for all diplomas

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

Photography (L) ***4062***
ARH200
• Grades 10-12
• 1 semester, 1 credit
• Recommended Prerequisites: Introduction to Two-Dimensional Art, Advanced Two-Dimensional Art
• Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
• Counts as a Directed Elective or Elective for all diplomas
• ***This course will require additional supplies that students must provide.***

Photography is a course based on the Indiana Academic Standards for Visual Art. Students in photography engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works, creating photographs, films, and videos utilizing a variety of digital tools and darkroom processes. They reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art-related careers.

Sculpture I (L) ***4044***
ARH213
• Grades 10-12
• 1 semester, 1 credit

Sculpture II (L) ***4044***
ARH215
• Grades 10-12
• 1 semester, 1 credit
• The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized
• Recommended Prerequisites: Introduction to Three-Dimensional Art, Advanced Three-Dimensional Art, and Sculpture I
• Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
• Counts as a Directed Elective or Elective all diplomas

Sculpture is a course based on the Indiana Academic Standards for Visual Art. Students in sculpture engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production. Using materials such as plaster, clay, metal, paper, wax,

and plastic, students create portfolio quality works. Students at this level produce works for their portfolios that demonstrate a sincere desire to explore a variety of ideas and problems. They create realistic and abstract sculptures utilizing subtractive and additive processes of carving, modeling, construction, and assembling. They reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art-related careers.

Visual Communication I (L) *4086*

ARH300
- Grades 10-12
- 1 semester, 1 credit
- The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized
- Recommended Prerequisites: Introduction to Two-Dimensional Art, Advanced Two-Dimensional Art
- Students may be eligible to earn 3 college credits for this course through Ivy Tech Community College. Please see page 15 for details.
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Counts as a Directed Elective or Elective for all diplomas

Visual Communication I is a course based on the Indiana Academic Standards for Visual Art. Students in visual communication engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production, and lead to the creation of portfolio quality works. They create print media utilizing graphic design, typography, illustration, and image creation with digital tools and computer technology. Students reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art-related careers.

Visual Communication II (L) *4086*

ARH301
- Grades 10-12
- 1 semester, 1 credit
- The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized
- Recommended Prerequisites: Introduction to Two-Dimensional Art, Advanced Two-Dimensional Art, Visual Communication I
- Students may be eligible to earn 3 college credits for this course through Ivy Tech Community College. Please see page 15 for details.
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Counts as a Directed Elective or Elective for all diplomas

Visual Communication II is a course based on the Indiana Academic Standards for Visual Art. Students in visual communication engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production, and lead to the creation of portfolio quality works. They create print media utilizing graphic design, typography, illustration, and image creation with digital tools and computer technology. Students reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art-related careers.

MATHEMATICS DEPARTMENT

Algebra I *2520*

MAH200/201
- Grades 9-12
- 2 semesters, 2 credits
- Counts as a Mathematics course for all diplomas
- Fulfills the Algebra I/Integrated Mathematics I requirement for all diplomas
- Students pursuing a Core 40, Core 40 with Academics Honors, or Core 40 with Technical Honors diploma should receive credit for Algebra I by the end of Grade 9

Algebra I formalizes and extends the mathematics students learned in the middle grades. Algebra I is made up of 6 strands: Real

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

Algebra I Lab *2516*

MAH152/153

- Grades 9-12
- 2 semesters, 2 credits
- Algebra I Lab is designed as a support course for Algebra I. As such, a student taking Algebra I Lab must also be enrolled in Algebra I during the same academic year.
- Counts as a Mathematics course for the General Diploma
- Counts as an Elective for the Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas

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

Algebra II *2522*

MAH300/301

- Grades 9-12
- 2 semesters, 2 credits

Honors Algebra II *2522*

MAH320/321

- Grades 9-12
- 2 semesters, 2 credits
- Prerequisites: Algebra I and Geometry. This class may be taken during the same year as Geometry for students in grades 10-12 and with proper approval.
- Recommended for students who have earned a minimum grade of A- in Algebra I and Algebra I teacher recommendation.
- Fulfills the Algebra II/Integrated Mathematics III requirement for all diplomas
- Counts as a Mathematics course for all diplomas
- The course content for the Honors class is significantly more rigorous than the state approved course. Honors-level courses must be standards-based, have defined criteria for student admission to the course as well as clear expectations of student outcomes, and include a culminating honors project that reflects understanding of the Honors course content.

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

AP Calculus AB *2562*

MAH630/631

- Grades 10-12
- 2 semesters, 2 credits

• Weighted Grade
• Prerequisites: Algebra I, Geometry, Algebra II, and Pre-Calculus
• Counts as a Mathematics course for all diplomas
• Qualifies as a Quantitative Reasoning course

AP Calculus AB is a course based on the content established and copyrighted by the College Board. AP Calculus AB is equivalent to a first semester college calculus course devoted to topics in differential and integral calculus. This course covers topics in these areas, including concepts and skills of limits, derivatives, definite integrals, and the Fundamental Theorem of Calculus. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

AP Calculus BC *2572*

MAH632/633
• Grades 11-12
• 2 semesters, 2 credits
• Weighted grade
• Recommended Prerequisites: Algebra I, Geometry, Algebra II, Pre-Calculus, and AP Calculus AB
• Counts as a Mathematics course for all diplomas
• Qualifies as a Quantitative Reasoning course

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

AP Statistics *2570*

MAH530/531
• Grades 11-12
• 2 semesters, 2 credits
• Weighted grade
• Recommended Prerequisite: Algebra II
• Counts as a Mathematics course for all diplomas
• Qualifies as a Quantitative Reasoning course

AP Statistics is a course based on the content established and copyrighted by the College Board. The AP Statistics course is equivalent to a one-semester, introductory, non-calculus-based college course in statistics. The course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes in the AP Statistics course: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding.

CCR Bridge: Math Ready *2514*

MAH440/441
• Grade 12
• 2 semesters, 2 credits
• Recommended Prerequisite: Students who have not passed the Grade 10 Math ISTEP+ AND have scored below college readiness proficiency on the PSAT OR students who score below proficient on a diagnostic test
• Counts as a Mathematics course for all diplomas
• Cannot be used for NCAA initial-eligibility certification

The CCR Bridge: Math Ready course will include and reinforce the Algebra I, Geometry, Algebra II, and Statistics skills necessary to be ready for an entry-level college math course. This course emphasizes understanding of math concepts rather than just memorizing

procedures. Math Ready students learn the context behind the procedure: why to use a certain formula or method to solve a problem, for example. This equips them with higher-order thinking skills in order to apply math skills, functions and concepts in different situations. The course is intended for students who currently have achieved the minimum math requirements for college entry. The content of this course is designed to enhance students' math skills so that they are ready for college-level math assignments. It is not designed to prepare students for college-level math in STEM majors.

Finite Mathematics *2530*

MAH430

- Grades 11-12
- 1 semester, 1 credit
- Prerequisite: Algebra II
- Counts as a Mathematics course for all diplomas

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

Geometry *2532*

MAH210/211

- Grades 9-12
- 2 semesters, 2 credits
- Prerequisite: Algebra I

Honors Geometry *2532*

MAH220/221

- Grades 9-12
- 2 semesters, 2 credits
- For students currently in 8th grade Algebra I earning an A or B, or current G-CHS students in Algebra I with teacher recommendation
- Fulfills the Geometry/Integrated Mathematics II requirement for the Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas
- Counts as a Mathematics course for all diplomas
- The course content for the Honors class is significantly more rigorous than the state approved course. Honors-level courses must be standards-based, have defined criteria for student admission to the course as well as clear expectations of student outcomes, and include a culminating honors project that reflects understanding of the Honors course content.

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

Mathematics Lab *2560*

MAH100/101

- Grades 10-12
- 1 semester, 1 credit per semester, 8 credits maximum
- Counts as an Elective for all diplomas

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

Pre-Calculus *2564*

MAH406

- Grades 9-12
- 1 semester, 1 credit

Honors Pre-Calculus *2564*

MAH408

- Grades 9-12
- 1 semester, 1 credit
- Prerequisites: Geometry and Algebra II
- Counts as a Mathematics course for all diplomas
- The course content for the Honors class is significantly more rigorous than the state approved course. Honors-level courses must be standards-based, have defined criteria for student admission to the course as well as clear expectations of student outcomes, and include a culminating honors project that reflects understanding of the Honors course content.

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

Probability and Statistics *2546*

MAH310

- Grades 11-12
- 1 semester, 1 credit
- Prerequisite: Algebra II
- Counts as a Mathematics course for all diplomas

Probability and Statistics includes the concepts and skills needed to apply statistical techniques in the decision-making process. Probability and Statistics is made up of three strands: Data Analysis, Experimental Design, and Probability. Practical examples based on real experimental data are used throughout. Students plan and conduct experiments or surveys and analyze the resulting data. The use of graphing calculators and computer programs is encouraged. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

Trigonometry *2566*

MAH407

- Grades 9-12
- 1 semester, 1 credit

Honors Trigonometry *2566*

- Grades 9-12
- 1 semester, 1 credit
- Prerequisites: Geometry and Algebra II
- Counts as a Mathematics course for all diplomas
- The course content for the Honors class is significantly more rigorous than the state approved course. Honors-level courses must be standards-based, have defined criteria for student admission to the course as well as clear expectations of student outcomes, and include a culminating honors project that reflects understanding of the Honors course content.

Trigonometry provides students with the skills and understandings that are necessary for advanced manipulation of angles and measurement. Trigonometry provides the foundation for common periodic functions that are encountered in many disciplines, including music, engineering, medicine, finance, and nearly all other STEM disciplines. Trigonometry consists of seven strands: conics, unit circle, geometry, periodic functions, identities, polar coordinates, and vectors. Students will also advance their understanding of

imaginary numbers through an investigation of complex numbers and polar coordinates. A strong understanding of complex and imaginary numbers is a necessity for fields such as engineering and computer programming. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

PERFORMING ARTS DEPARTMENT

Advanced Chorus (L) Madrigal *4188*

MUH320/321
- Grades 11-12
- 2 semesters, 2 credits
- Prerequisite: Audition
- Fulfills the Fine Arts requirement for Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for all diplomas
- The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.

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

Beginning Chorus (L) *4182*

Freshman Men's Choir: MUH122/123
Freshman Women's Choir: MUH124/125
- Grade 9
- 2 semesters, 2 credits
- Fulfills the Fine Arts requirement for Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for all diplomas

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

Intermediate Chorus (L) *4186*

Bella Voce: MUH220/221 (Women's Choir)
Concert Choir: MUH312/313 (Co-ed Choir)
- Grades 10-12
- 2 semesters, 2 credits
- Prerequisite: Audition
- Fulfills the Fine Arts requirement for Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for all diplomas
- The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.

Intermediate Chorus is based on the Indiana Academic Standards for High School Choral Music. Students taking Intermediate Chorus

develop musicianship and specific performance skills through ensemble and solo singing. These choirs will be a mixed (male & female), an all-female, or all-male ensemble. This class includes the study of quality repertoire in the diverse styles of choral literature appropriate in difficulty and range for the students. Chorus classes provide opportunities for performing, creating, and responding to music. Students develop the ability to understand and convey the composer's intent in performance of music. Time outside of the school day may be scheduled for rehearsals and performances. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Students are required to participate in performance opportunities outside of the school day that support and extend learning in the classroom.

Vocal Jazz (L) Legacy Show Choir *4184*

MUH300/301

- Grades 11-12
- 2 semesters, 2 credits
- Prerequisite: Audition
- Fulfills the Fine Arts requirement for Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for all diplomas
- The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.

Vocal Jazz is based on the Indiana Academic Standards for High School Choral Music. Students in this course develop musicianship and specific performance skills through group and individual settings for the study and performance of varied styles of vocal jazz. Instruction includes the study of the history and formative and stylistic elements of jazz. Students develop their creative skills through improvisation, composition, arranging, performing, listening, and analyzing. Time outside of the school day may be scheduled for rehearsals and performances. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Students are required to participate in performance opportunities outside of the school day that support and extend learning in the classroom.

Advanced Concert Band (L) *4170*

MUH200/201

- Grades 10-12
- 2 semesters, 2 credits
- Prerequisite: Audition
- Fulfills the Fine Arts requirement for Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for all diplomas
- The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.

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

Beginning Concert Band (L) *4160*

MUH050/051

- Grade 9
- 2 semesters, 2 credits
- Fulfills the Fine Arts requirement for Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for all diplomas
- The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.

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

Instrumental Ensemble (L) Strings *4162*

MUH106/107

- Grades 9-12
- 2 semesters, 2 credits
- Prerequisite: Student must have taken the Strings course at GCJHS or have had lessons on the violin prior to enrolling in the course.
- Fulfills the Fine Arts requirement for Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for all diplomas
- The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.

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

Intermediate Concert Band (L) *4168*

MUH100/101

- Grades 10-12
- 2 semesters, 2 credits
- Prerequisite: Audition
- Fulfills the Fine Arts requirement for Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for all diplomas
- The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.

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

Jazz Ensemble I (L) *4164*

MUH110/111

- Grades 9-12
- 2 semesters, 2 credits

Jazz Ensemble II (L) *4164*

MUH112/113
• Grades 9-12
• 2 semesters, 2 credits
• Prerequisite: Member of Marching and Concert Bands or permission of band director by audition.
• Fulfills the Fine Arts requirement for Core 40 with Academic Honors diploma
• Counts as a Directed Elective or Elective for all diplomas
• The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.

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

Music Theory and Composition (L) *4208*

MUH210/211
• Grades 10-12
• 2 semesters, 2 credits
• Fulfills the Fine Arts requirement for Core 40 with Academic Honors diploma
• Counts as a Directed Elective or Elective for all diplomas

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.

AP Music Theory *4210*

MUH510/511
• Grades 11-12
• 2 semesters, 2 credits
• Weighted Grade
• Fulfills the Fine Arts requirement for Core 40 with Academic Honors diploma
• Counts as a Directed Elective or Elective for all diplomas

AP Music Theory is a course based on the content established and copyrighted by the College Board. The AP Music Theory course corresponds to two semesters of a typical introductory college music theory course that covers topics such as musicianship, theory, musical materials, and procedures. Musicianship skills, including dictation and other listening skills, sight-singing, and keyboard harmony, are considered an important part of the course. Through the course, students develop the ability to recognize, understand, and describe basic materials and processes of music that are heard or presented in a score. Development of aural skills is a primary objective. Performance is also part of the learning process. Students understand basic concepts and terminology by listening to and performing a wide variety of music. Notational skills, speed, and fluency with basic materials are emphasized.

Dance Choreography (L) Color Guard *4142*

MUH230/231
• Grades 9-12
• 2 semesters, 2 credits
• Prerequisite: Audition
• Fulfills the Fine Arts requirement for Core 40 with Academic Honors diploma
• Counts as a Directed Elective or Elective for all diplomas
• The nature of this course allows for successive semesters of instruction at an advanced level provided defined proficiencies and

content standards are utilized.
• A non-licensed dance instructor may be contracted with a licensed Performing Arts teacher serving as the teacher of record.

Dance Choreography (Color Guard) is based on the Indiana Academic Standards for Dance. Learning activities in choreography are sequential and systematic and allow students to express themselves. A wide variety of materials and experiences are used in order to provide students with the knowledge, skills, and appreciation of the multi-styled and multicultural dance expressions. Choreographic activities provide students opportunities to participate in roles as a soloist, a choreographer or leader, and in a subject role. Students also explore a wide variety of choreographic philosophies as well as administrative and media skills necessary for the promotion and documentation of works to be performed. Students experience and learn to use appropriate terminology to describe, analyze, interpret, and critique dance compositions by professional individuals or companies.

Dance Performance (L) Blue Fusion Dance Team *4146*

MUH402/403
• Grades 9-12
• 2 semesters, 2 credits
• Prerequisite: Audition
• Fulfills the Fine Arts requirement for Core 40 with Academic Honors diploma
• Counts as a Directed Elective or Elective for all diplomas
• The nature of this course allows for successive semesters of instruction at an advanced level provided defined proficiencies and content standards are utilized.
• A non-licensed dance instructor may be contracted with a licensed Performing Arts teacher serving as the teacher of record.

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

Advanced Theatre Arts (L) *4240*

MUH411
• Grades 10-12
• 1 semester, 1 credit
• Prerequisite: Theatre Arts
• Fulfills requirement for 1 of 2 Fine Arts credits for Core 40 with Academic Honors diploma
• Counts as a Directed Elective or Elective for all diplomas
• ***Students will attend a maximum of four outside performances for which they pay above and beyond the lab fee.***

Advanced Theatre Arts is based on the Indiana Academic Standards for Theatre. Students enrolled in Advanced Theatre Arts read and analyze plays and apply criteria to make informed judgments. They draw on events and experiences to create scripted monologues and scenes, create scenic designs for existing plays, and build characters through observation, improvisation, and script analysis. These activities should incorporate elements of theatre history, culture, analysis, response, creative process, and integrated studies. Additionally, students explore careers in theatre arts and begin to develop a portfolio of their work. They also attend and critique theatre productions and identify ways to support the theatre in their community.

Technical Theatre (L) *4244*

Not offered 2020-21

MUH420
• Grades 9-12
• 1 semester, 1 credit
• Prerequisite: Theatre Arts
• Fulfills requirement for 1 of 2 Fine Arts credits for Core 40 with Academic Honors diploma
• Counts as a Directed Elective or Elective for all diplomas

• ***Students will attend a maximum of four outside performances for which they pay above and beyond the lab fee.***

Technical Theatre is based on the Indiana Academic Standards for Theatre. Students enrolled in Technical Theatre actively engage in the process of designing, building, managing, and implementing the technical aspects of a production. These activities should incorporate elements of theatre history, culture, analysis, response, creative process, and integrated studies. Additionally, students explore career opportunities in the theatre, attend and critique theatrical productions, and recognize the responsibilities and the importance of individual theatre patrons in their community.

Theatre Arts (L) *4242*

MUH410
• Grades 9-12
• 1 semester, 1 credit
• This course is the prerequisite for all other theatre classes
• Fulfills requirement for 1 of 2 Fine Arts credits for Core 40 with Academic Honors diploma
• Counts as a Directed Elective or Elective for all diplomas
• ***Students will attend a maximum of four outside performances for which they pay above and beyond the lab fee.***

Theatre Arts is based on the Indiana Academic Standards for Theatre. Students enrolled in Theatre Arts read and analyze plays, create scripts and theatre pieces, conceive scenic designs, and develop acting skills. These activities incorporate elements of theatre history, culture, analysis, response, creative process, and integrated studies. Additionally, students explore career opportunities in the theatre, attend and critique theatrical productions, and recognize the responsibilities and the importance of individual theatre patrons in their community.

PHYSICAL EDUCATION AND HEALTH DEPARTMENT

Current Health Issues *3508*

PHH300
• Grades 9-12
• 1 semester, 1 credit
• Prerequisite: Health & Wellness Education
• Counts as an Elective for all diplomas

Current Health Issues, an elective course that can be aligned to Indiana's Academic Standards for Health & Wellness, focuses on specific health issues and/or emerging trends in health and wellness, including, but not limited to: personal health and wellness, non-communicable and communicable diseases, nutrition, mental and emotional health, tobacco use prevention, alcohol and other drug use prevention, human development and family health, health care and/or medical treatments, and national and/or international health issues. This course provides students with the knowledge and skills of health and wellness core concepts, analyzing influences, accessing information, interpersonal communication, decision-making and goal-setting skills, health-enhancing behaviors, and health and wellness advocacy skills.

Elective Physical Education – Aquatics (L) *3560*

PHH102
• Grades 9-12
• 1 semester, 1 credit
• Prerequisites: Complete PE I and PE II; Must be 15 years old, be able to swim 300 yards with 2 strokes, tread water for 5 minutes, and dive and retrieve a 10 lb. weight from the bottom of the deep end of the pool.
• Counts as an Elective for all diplomas

Elective Physical Education – Aquatics promotes lifetime sport and recreational activities and provides an opportunity for an in-depth study in specific areas. The following activities should be included: health related fitness activities (cardio respiratory endurance, muscular strength and endurance, flexibility, and body composition). It includes the study of physical development concepts and principles of sport and exercise, as well as opportunities to develop or refine skills and attitudes that promote lifelong fitness. Students have the opportunity to design and develop an appropriate personal fitness program that enables them to achieve a desired level of fitness. Ongoing assessment includes both written and performance-based skill evaluations. This course will also include a discussion of related careers. This specific course focuses on water skills including stroke performance, endurance, and water safety. Although the

focus is on individual participation, team games are included. Students may seek Red Cross First Aid, CPR, and Lifeguarding certification. Students should have a basic knowledge and mastery of swim strokes to enroll in this class.

Elective Physical Education – Strength & Fitness (L) *3560*

PHH600/601 (men)
PHH700/701 (women)

- Grades 9-12
- 1 semester, 1 credit
- Prerequisites: Complete PE I and PE II
- Counts as an Elective for all diplomas
- The nature of this course allows for successive semesters of instruction provided defined proficiencies and content standards are utilized
- **All students enrolling in Strength and Fitness must have a current physical on file in the athletic office by July 24, 2020. The physical must be dated on or after April 1, 2020. Students will not be allowed to stay in the class if they do not have a physical by the time the class starts.**

Elective Physical Education, a course based on selected standards from Indiana's Academic Standards for Physical Education, identifies what a student should know and be able to do as a result of a quality physical education program. The goal of a physically educated student is to maintain appropriate levels of cardio-respiratory endurance, muscular strength and endurance, flexibility, and body composition necessary for a healthy and productive life. Elective Physical Education promotes lifetime sport and recreational activities and provides an opportunity for an in-depth study in one or more specific areas. A minimum of two of the following activities should be included: team sports; dual sports activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance. This course includes the study of physical development concepts and principles of sport and exercise as well as opportunities to develop or refine skills and attitudes that promote lifelong fitness. Students have the opportunity to design and develop an appropriate personal fitness program that enables them to achieve a desired level of fitness.

Health and Wellness Education *3506*

PHH110

- Grades 9-12
- 1 semester, 1 credit
- Fulfills the Health & Wellness requirement for all diplomas

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

Physical Education I (L) *3542*

PHH100

- Grades 9-12
- 1 semester, 1 credit
- Fulfills part of the Physical Education requirement for all diplomas

Physical Education I focuses on instructional strategies through a planned, sequential, and comprehensive physical education curriculum that provides students with opportunities to actively participate in at least four of the following: team sports; dual sport activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance, all of which are within the framework of the skills, knowledge and confidence needed by the student for a lifetime of healthful physical activity and fitness.

Ongoing assessment includes both written and performance-based skill evaluation. Individual assessments may be modified for individuals with disabilities, in addition to those with IEPs and 504 plans (e.g., chronic illnesses, temporary injuries, obesity, etc.).

Physical Education II (L) *3544*

PHH101
- Grades 9-12
- 1 semester, 1 credit
- Prerequisite: Complete PE I
- Fulfills part of the Physical Education requirement for all diplomas

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

SCIENCE DEPARTMENT

Advanced Science, College Credit (L) *3090*
ACP Biology BIOL L100 – Humans & the Biological World

SCH630/631
- Grades 11-12
- 2 semesters, 2 credits
- Students may be eligible to earn 5 college credit hours for this course through Indiana University-Bloomington. Please see page 16 for details.
- Weighted Grade
- A cumulative GPA of 2.7 or higher is required to earn college credit for this course
- Prerequisites: Biology I and Chemistry I with at least a "B" average or approval of the science department chair
- Counts as a Science course for all diplomas

ACP Biology is a course offered in conjunction with Indiana University-Bloomington. It is a college course designed to examine the fundamental principles of Biology. ACP Biology expands the information presented in Biology I, and reinforces and builds on the principles of biological organization from molecules through cells and organisms. The emphasis is on processes common to all organisms, with special reference to humans. This course may be taken for college credit as well as high school credit. If taken for college credit, it counts as a 5-credit hour lab course for non-science majors, or as a 5-credit hour elective to prepare science majors for more advanced courses.

Anatomy and Physiology *5276*

SCH400/401
- Grades 11-12
- 2 semesters, 2 credits
- Required Prerequisite: Biology I with at least a "B" average
- Recommended Prerequisite: Chemistry I
- Fulfills a Core 40 Science course requirement for all diplomas
- Counts as an Elective or Directed Elective for all diplomas

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

AP Biology (L) *3020*

SCH640/641
• Grades 11-12
• 2 semesters, 2 credits
• Weighted Grade
• Recommended Prerequisites: Biology I and Chemistry I with at least a "B" average
• Counts as a Science course for all diplomas
• Qualifies as a Quantitative Reasoning course

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

AP Chemistry (L) *3060*

SCH650/651
• Grades 11-12
• 2 semesters, 2 credits
• Weighted Grade
• Recommended Prerequisites: Chemistry I, Algebra II, and Pre-Calculus
• Counts as a Science course for all diplomas
• Qualifies as a Quantitative Reasoning course

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

AP Physics 1: Algebra-Based (L) *3080*

SCH662/663
• Grades 10-12
• 2 semesters, 2 credits
• Weighted Grade
• Recommended Prerequisite: Algebra I
• Counts as a Science course for all diplomas
• Qualifies as a Quantitative Reasoning course

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

AP Physics 2: Algebra-Based (L) *3081*

SCH664/665
• Grades 11-12
• 2 semesters, 2 credits
• Weighted grade
• Recommended Prerequisite: AP Physics 1: Algebra-Based
• Counts as a Science course for all diplomas
• Qualifies as a Quantitative Reasoning course

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

AP Physics C (L) *3088*

SCH668/669
• Grade 12
• 2 semesters, 2 credits
• Weighted grade
• Recommended Prerequisites: Physics I, Calculus (can be taken concurrently)
• Counts as a Science course for all diplomas
• Counts as an Elective for all diplomas
• Qualifies as a Quantitative Reasoning course

AP Physics C is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. There are two AP Physics C courses - Physics C: Mechanics and Physics C: Electricity and Magnetism. AP Physics C: Mechanics provides instruction in each of the following six content areas: kinematics; Newton's laws of motion; work, energy, and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation. AP Physics C: Electricity and Magnetism provides instruction in each of the following five content areas: electrostatics; conductors, capacitors, and dielectrics; electric circuits; magnetic fields; and electromagnetism.

Biology I (L) *3024*

SCH100/101
• Grades 9-12
• 2 semesters, 2 credits
• Fulfills the Biology requirement for all diplomas

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

Biology II (L) *3026*

SCH200/201
• Grades 9-12
• 2 semesters, 2 credits
• Recommended Prerequisites: Biology I and Algebra I
• Fulfills a Science course requirement for all diplomas
• Counts as an Elective for all diplomas

Biology II is an advanced laboratory, field, and literature investigations-based course. Students enrolled in Biology II examine in greater depth the structures, functions, and processes of living organisms. Students also analyze and describe the relationship of Earth's living organisms to each other and to the environment in which they live. In this course, students refine their scientific inquiry skills as they collaboratively and independently apply their knowledge of the unifying themes of biology to biological questions and problems related to personal and community issues in the life sciences.

Biology II: Pre-AP Biology (L) *3026*

SCH204/205
• Grades 10-12
• 2 semesters, 2 credits
• Recommended Prerequisites: Biology I and Algebra I
• Fulfills a Science course requirement for all diplomas
• Counts as an Elective for all diplomas

Pre-AP Biology (Biology II) is an advanced laboratory, field, and literature investigations-based course. Students enrolled in Pre-AP Biology examine in greater depth the structures, functions, and processes of living organisms. Students also analyze and describe the relationship of Earth's living organisms to each other and to the environment in which they live. In this course, students refine their scientific inquiry skills as they collaboratively and independently apply their knowledge of the unifying themes of biology to biological questions and problems related to personal and community issues in the life sciences. This course is designed as a course to prepare

students to take AP/ACP Biology.

Chemistry I (L) *3064*

SCH300/301

- Grades 9-12
- 2 semesters, 2 credits
- Prerequisite: Algebra I with at least a "C" average
- Recommended Prerequisite: Algebra II (can be taken concurrently)
- Fulfills a Physical Science course requirement for all diplomas
- Qualifies as a Quantitative Reasoning course

Honors Chemistry I (L) *3064*

SCH304/305

- Grades 9-12
- 2 semesters, 2 credits
- Recommended Prerequisites: High Ability Track, Algebra II (can be taken concurrently), and Algebra I with at least a "B" average
- Fulfills a Physical Science course requirement for all diplomas
- Qualifies as a Quantitative Reasoning course
- The course content for the Honors class is significantly more rigorous than the state approved course. Honors-level courses must be standards-based, have defined criteria for student admission to the course as well as clear expectations of student outcomes, and include a culminating honors project that reflects understanding of the Honors course content.

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

Chemistry II (L) *3066*

SCH320/321

- Grades 10-12
- 2 semesters, 2 credits
- Recommended Prerequisites: Chemistry I and Algebra II
- Fulfills a Physical Science course requirement for all diplomas
- Counts as an Elective for all diplomas
- Qualifies as a Quantitative Reasoning course

Chemistry II is an extended laboratory, field, and literature investigations-based course. Students enrolled in Chemistry II examine the chemical reactions of matter in living and nonliving materials. Based on the unifying themes of chemistry and the application of physical and mathematical models of the interactions of matter, students use the methods of scientific inquiry to answer chemical questions and solve problems concerning personal needs and community issues related to chemistry.

Chemistry II (L) *3066*

ACP Chemistry C101/C121 (Elementary Chemistry/Elementary Chemistry I Lab)

SCH672/673

- Grades 10-12
- 2 semesters, 2 credits
- Students may be eligible to earn 5 college credit hours for this course through Indiana University-Bloomington. Please see 15 for details.
- Weighted Grade
- A cumulative GPA of 2.7 or higher is required to earn college credit for this course
- Recommended Prerequisites: Chemistry I and Algebra II
- Fulfills a Physical Science course requirement for all diplomas
- Counts as an Elective for all diplomas

• Qualifies as a Quantitative Reasoning course

ACP Chemistry is a course offered in conjunction with Indiana University-Bloomington. This is an introduction to aspects of general chemistry, as well as the techniques and reasoning of experimental chemistry. Topics covered will include atomic structure, stoichiometry, matter, gases, kinetics, equilibrium, acid base chemistry, etc. All topics will also be covered in the laboratory. The course will have a strong emphasis on problem solving and laboratory work with reporting. See your counselor for more information and the discounted IU tuition cost for this course. Tuition will be determined by IU and will be communicated to students at the beginning of the semester.

Earth and Space Science I (L) *3044*

SCH350/351
• Grades 10-12
• 2 semesters, 2 credits
• Fulfills a Science course requirement for all diplomas
• Counts as an Elective for all diplomas

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

Integrated Chemistry-Physics (L) *3108*

SCH230/231
• Grades 9-12
• 2 semesters, 2 credits
• Recommended Prerequisite: Algebra I (may be taken concurrently)
• Fulfills a Physical Science course requirement for all diplomas
• Counts as an Elective for all diplomas
• Qualifies as a Quantitative Reasoning course

Integrated Chemistry-Physics is a course focused on the following core topics: constant velocity; uniform acceleration; Newton's Laws of Motion (one dimension); energy; particle theory of matter; describing substances; representing chemical change; electricity and magnetism; waves; and nuclear energy. Instruction should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation by designing and conducting investigations guided by theory and by evaluating and communicating the results of those investigations according to accepted procedures.

Physics I (L) *3084*

SCH420/421
• Grades 10-12
• 2 semesters, 2 credits
• Recommended Prerequisites: Algebra I, Algebra II
• Fulfills a Physical Science course requirement for all diplomas
• Counts as an Elective for all diplomas
• Qualifies as a Quantitative Reasoning course
• This is a college prep class for students that do not intend to enroll in engineering or a physical science related career.

Physics I is a course focused on the following core topics: constant velocity; constant acceleration; forces; energy; linear momentum in one dimension; simple harmonic oscillating systems; mechanical waves and sound; and simple circuit analysis. Instruction should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation, by designing and conducting investigations guided by theory, and by evaluating and communicating the results of those investigations according to accepted procedures.

PROJECT LEAD THE WAY – BIOMEDICAL ACADEMY

This program consists of four courses: Principles of Biomedical Sciences, Human Body Systems, Medical Interventions, and Biomedical Innovation. Principles of Biomedical Sciences is the first and is geared toward the freshman student. The second course is Human Body Systems. The third course, Medical Interventions, includes interventions to support humans in treating disease and maintaining health. Student projects investigate various medical interventions that extend and improve quality of life, including gene therapy, pharmacology, surgery, prosthetics, rehabilitation, and supportive care. The final capstone course, Biomedical Innovation, gives student teams the opportunity to work with a mentor, identify a science research topic, conduct research, write a scientific paper, and defend team conclusions and recommendations to a panel of outside reviewers. Each team will have one or more mentors from the scientific and/or medical community guiding their scientific research. This course may be combined with the capstone course from the pre-engineering pathway, allowing students from both pathways to work together to engineer a product that could impact healthcare. Students must earn a C+ or better in all PLTW - Biomedical courses to continue in the program.

Required courses:

9th Grade:	PBS – Principles of Biomedical Sciences
10th Grade:	HBS – Human Body Systems
11th Grade:	MI – Medical Interventions
12th Grade:	BI – Biomedical Innovation

PLTW Principles of Biomedical Sciences *5218*

SCH250/251
CIP Code 14.0501
• Grade 9
• 2 semesters, 2 credits
• Weighted Grade
• Prerequisite: Biology I or concurrent enrollment in Biology I is required
• Fulfills a Science requirement for all diplomas
• Counts as an Elective or Directed Elective for all diplomas

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

PLTW Human Body Systems *5216*

SCH310/311
CIP Code 26.0101
• Grade 10
• 2 semesters, 2 credits
• Weighted Grade
• Prerequisite: Principles of Biomedical Sciences
• Fulfills a Science requirement for all diplomas
• Counts as an Elective or Directed Elective for all diplomas

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

PLTW Medical Interventions *5217*

SCH430/431
CIP Code 14.0501
• Grade 11
• 2 semesters, 2 credits
• Weighted Grade
• Required Prerequisites: Principles of Biomedical Sciences and Human Body Systems or Anatomy & Physiology
• Fulfills a Science requirement for all diplomas
• Counts as an Elective or Directed Elective for all diplomas

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

PLTW Biomedical Innovations *5219*

SCH450/451
CIP Code 14.0501
• Grade 12
• 2 semesters, 2 credits
• Students may be eligible to earn 3 college credits for this course through Ivy Tech Community College. Please see page 15 for details.
• Weighted Grade
• Prerequisites: Principles of Biomedical Sciences, Human Body Systems or Anatomy and Physiology, and Medical Interventions
• Counts as a Directed Elective or Elective for all diplomas
• Qualifies as PBL course for graduation pathways

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

SOCIAL STUDIES DEPARTMENT

AP European History *1556*

SOH650/651
• Grades 11-12
• 2 semesters, 2 credits
• Weighted Grade
• Recommended Prerequisite: World History. Students should be able to read a college level textbook and write grammatically correct sentences.
• Counts as an Elective for all diplomas

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

AP Psychology *1558*
SOH670/671
• Grade 12
• 2 semesters, 2 credits
• Weighted Grade
• Recommended Prerequisite: Strong academic background. Students should be able to read a college level textbook and write grammatically correct, complete sentences.
• Counts as an Elective for all diplomas

AP Psychology is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The AP Psychology course introduces students to the systematic and scientific study of human behavior and mental processes. While considering the psychologists and studies that have shaped the field, students explore and apply psychological theories, key concepts, and phenomena associated with such topics as the biological bases of behavior, sensation and perception, learning and cognition, motivation, developmental psychology, testing and individual differences, treatment of abnormal behavior, and social psychology. Throughout the course, students employ psychological research methods, including ethical considerations, as they use the scientific method, analyze bias, evaluate claims and evidence, and effectively communicate ideas. Topics include: History and Approaches; Research Methods; Biological Bases of Behavior; Sensation and Perception; States of Consciousness; Learning; Cognition; Motivation and Emotion; Developmental Psychology; Personality; Testing and Individual Differences; Abnormal Behavior; Treatment of Abnormal Behavior; and Social Psychology.

AP United States History *1562*
SOH660/661
• Grade 11
• 2 semesters, 2 credits
• Weighted Grade
• Recommended Prerequisite: Strong academic background. Students should be able to read a college level textbook and write grammatically correct, complete sentences.
• Fulfills the U.S. History requirement for all diplomas

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

Economics *1514*
SOH420
• Grade 12
• 1 semester, 1 credit
• Fulfills the Economics requirement for the Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas
• Fulfills a Social Studies requirement for the General Diploma
• Counts as an Elective for all diplomas
• Qualifies as a Quantitative Reasoning course

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

Ethnic Studies *1516*
SOH450
• Grades 9-12
• 1 semester, 1 credit
• Counts as an Elective for all diplomas

Ethnic Studies provides opportunities to broaden students' perspectives concerning lifestyles and cultural patterns of ethnic groups in

the United States. This course will either focus on a particular ethnic group or groups, or use a comparative approach to the study of patterns of cultural development, immigration, and assimilation, as well as the contributions of specific ethnic or cultural groups. The course may also include analysis of the political impact of ethnic diversity in the United States.

Geography and History of the World *1570*

SOH220/221
- Grades 9-12
- 2 semesters, 2 credits
- Fulfills the Geography and History of the World/World History and Civilization requirement for the Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas
- Fulfills a Social Studies requirement for the General Diploma
- Counts as an Elective for all diplomas

Geography and History of the World is designed to enable students to use geographical tools, skills, and historical concepts to deepen their understanding of major global themes including the origin and spread of world religions, exploration, conquest, imperialism, urbanization, innovations, and revolutions. Geographical and historical skills include forming research questions, acquiring information by investigating a variety of primary and secondary sources, organizing information by creating graphic representations, analyzing information to determine and explain patterns and trends, planning for the future, and documenting and presenting findings orally or in writing. The historical geography concepts used to explore the global themes include change over time, origin, diffusion, physical systems, cultural landscapes, and spatial distribution/patterns and interaction/relationships. Students use the knowledge, tools, and skills obtained from this course in order to analyze, evaluate, and make predictions about major global developments. This course is designed to nurture perceptive and responsible citizenship, to encourage and support the development of critical thinking skills and lifelong learning, and to help prepare Indiana students for the 21st Century.

Indiana Studies *1518*

SOH440
- Grades 9-12
- 1 semester, 1 credit
- Counts as an Elective for all diplomas

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.

Psychology *1532*

SOH430
- Grades 11-12
- 1 semester, 1 credit
- Counts as an Elective for all diplomas

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

Sociology *1534*

SOH410
- Grades 11-12
- 1 semester, 1 credit
- Counts as an Elective for all diplomas

Sociology allows students to study human social behavior from a group perspective. The sociological perspective is a method of studying recurring patterns in people's attitudes and actions and how these patterns vary across time, cultures, and in social settings and groups. Students will describe the development of sociology as a social science and identify methods of research. Through research methods such as scientific inquiry students will examine society, group behavior, and social structures. The influence of culture on group behavior is addressed through institutions such as the family, religion, education, economics, community organizations, government, and political and social groups. The impact of social groups and institutions on group and individual behavior and the changing nature of society will be examined. Influences on group behavior and social problems are included in the course. Students will also analyze the role of individuals in the community and social problems in today's world.

United States Government *1540*

SOH400
- Grade 12
- 1 semester, 1 credit
- Fulfills the Government requirement for all diplomas
- Students are required to take the naturalization test for citizenship per SEA 132

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

United States History *1542*

SOH300/301
- Grade 11
- 2 semesters, 2 credits
- Fulfills the U.S. History requirement for all diplomas

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

ACP United States History *1542*
HIST H105 American History I, HIST 106 American History II

SOH640/641
- Grade 11
- 2 semesters, 2 credits
- Weighted Grade
- Prerequisite: Strong academic background. Students should be able to read a college level textbook and write grammatically correct, complete sentences.
- Students may be eligible to earn 6 college credits for this course through Indiana University-Bloomington. Please see page 16 for details.
- Students must have a minimum 2.7 GPA to earn college credit for this course. The expectation is for the student to take this course for dual credit and officially register for the course with Indiana University.
- Fulfills the U.S. History requirement for all diplomas

ACP United States History is a two-semester course that builds upon concepts developed in previous studies of U.S. History and emphasizes national development from the late nineteenth century into the twenty-first century. After reviewing fundamental themes in the early development of the nation, students are expected to identify and review significant events, persons, and movements in the early development of the nation. The course then gives major emphasis to the interaction of key events, people, and political, economic, social, and cultural influences in national developments from the late nineteenth century through the present as they relate to life in

Indiana and the United States. Students are expected to trace and analyze chronological periods and examine the significant themes and concepts in U.S. History. Students develop historical thinking and research skills and use primary and secondary sources to explore topical issues and to understand the cause for changes in the nation over time.

World History and Civilization *1548*

SOH200/201
- Grades 9-12
- 2 semesters, 2 credits
- Fulfills the Geography and History of the World/World History and Civilization requirement for the Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors diplomas
- Fulfills a Social Studies requirement for the General Diploma
- Counts as an Elective for all diplomas

World History and Civilization emphasizes events and developments in the past that greatly affected large numbers of people across broad areas and that significantly influenced peoples and places in subsequent eras. Key events related to people and places as well as transcultural interaction and exchanges are examined in this course. Students are expected to compare and contrast events and developments involving diverse peoples and civilizations in different regions of the world. They will examine examples of continuity and change, universality and particularity, and unity and diversity among various peoples and cultures from the past to the present. Students are also expected to practice and process skills of historical thinking and research and apply content knowledge to the practice of thinking and inquiry skills and processes. There will be continuous and pervasive interactions of processes, content, skills and substance in the teaching and learning of history.

WORLD LANGUAGE DEPARTMENT

French, German, Spanish I *2020, 2040, 2120*

FFH100/101
FGH100/101
FSH100/101
- Grades 9-12
- 2 semesters, 2 credits
- Prerequisite: It is recommended that 8th graders have a "C" or better in Language Arts before taking World Language in grade 8
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for all diplomas

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

French, German, Spanish II *2022, 2042, 2122*

FFH200/201
FGH200/201
FSH200/201
- Grades 9-12
- 2 semesters, 2 credits
- Prerequisite: World Language I in the language studied with a passing grade
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for all diplomas

Level II World Language is based on Indiana's Academic Standards for World Languages and builds upon effective strategies for language learning by encouraging the use of the language and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to requests and questions in expanded contexts, participating independently in brief conversations on familiar topics, and writing cohesive passages

with greater independence and using appropriate formats. This course also emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and comprehending longer written or oral directions. Students will address the presentational mode by presenting prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation and intonation. Additionally, students will describe the practices, products, and perspectives of the culture, report on basic family and social practices of the target culture, and describe contributions from the target culture. This course further emphasizes making connections across content areas and the application of understanding language and culture outside of the classroom.

Honors Spanish II *2122*

FSH210/211
- Grades 9-12
- 2 semesters, 2 credits
- Prerequisite: Spanish I
- Teacher recommendation is required
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for all diplomas
- The course content for the Honors class is significantly more rigorous than the state approved course. Honors-level courses must be standards-based, have defined criteria for student admission to the course as well as clear expectations of student outcomes, and include a culminating honors project that reflects understanding of the Honors course content.

Honors Spanish II enables students to participate in conversations dealing with daily activities and personal interests. Students are able to participate in conversations on a variety of topics, relate a simple narrative about a personal experience or event, interact in a variety of situations to meet personal needs, such as asking permission, asking for or responding to an offer of help, and expressing preferences pertaining to everyday life, understand main ideas and facts from simple texts over familiar topics, read aloud with appropriate intonation and pronunciation, and write briefly in response to given situations. Students will communicate through listening and speaking in various cultural contexts within a foreign culture and within the student's own culture. Students will apply effective strategies in order to comprehend developmentally appropriate reading materials and utilize writing strategies for different purposes. Additionally, students become familiar with geographical areas and with different aspects of the culture, including literature and music, using the world language where appropriate. They are able to extend and respond to hospitality as a host or a guest. Students will demonstrate behaviors appropriate in the cultures of the languages being studied. Honors Spanish II maintains the same objectives as the regular Spanish II class, but the students study the language on a deeper level with more challenging assignments, utilizing more instruction and communication in Spanish.

French, German, Spanish III *2024, 2044, 2124*

FFH300/301
FGH300/301
FSH300/301
- Grades 10-12
- 2 semesters, 2 credits
- Prerequisites: World Language I and II in the language studied with a passing grade
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for all diplomas

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

Honors Spanish III *2124*

FSH310/311
- Grades 10-12
- 2 semesters, 2 credits

- Recommended Prerequisite: Honors Spanish II. Teacher recommendation is required.
- Students may be eligible to earn up to 8 college credits for this course through Ivy Tech Community College. Please see page 15 for details.
- Weighted Grade
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for all diplomas
- The course content for the Honors class is significantly more rigorous than the state approved course. Honors-level courses must be standards-based, have defined criteria for student admission to the course as well as clear expectations of student outcomes, and include a culminating honors project that reflects understanding of the Honors course content.

Honors Spanish III provides instruction enabling students to understand and appreciate other cultures by comparing social behaviors and values of people using Spanish. Students are willing to initiate and participate in discussions concerning this culture. In addition, students are able to respond to factual and interpretive questions and interact in a variety of social situations, read for comprehension from a variety of authentic materials write paraphrases, summaries, and brief compositions, apply effective strategies in order to comprehend developmentally appropriate reading materials, apply developmentally appropriate writing strategies for different purposes, recognize the interrelatedness of languages, literatures, and cultures through a knowledge of the artifacts, expressions, and traditions of the foreign cultures, and demonstrate behaviors appropriate in the cultures of the languages being studied. Honors Spanish III maintains the same objectives, course materials, and teaching strategies as the regular program materials. They use additional vocabulary and information to research and prepare presentations on various areas where the Spanish is spoken. Students write and speak in response to given situations, using compound and complex sentences. They are given opportunities to use the language creatively in writing.

French, German IV *2026, 2046*

FFH400/401
FGH400/401
- Grades 11-12
- 2 semesters, 2 credits
- Prerequisites: World Language I, II, and III in the language studied with a passing grade
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for all diplomas

Level IV World Language is based on Indiana's Academic Standards for World Languages and provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral information are expanded through emphasis on practicing speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop understanding of the culture that speaks the targeted language 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 students' 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 world language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native language speakers.

Spanish IV *2126*

FSH400/401
- Grades 11-12
- 2 semesters, 2 credits
- Required Prerequisite: Honors Spanish III or Department Chair Recommendation
- Students may be eligible to earn up to 6 college credits for this course through Ivy Tech Community College. Please see page 15 for details.
- Weighted Grade
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for all diplomas

This is a fast-paced, college-level course which adds to and applies all knowledge learned in Spanish from levels 1-3. The course is intended to prepare students for upper level college courses and it follows the rigor and guidelines of a second-year college level class. Level IV World Language is based on Indiana's Academic Standards for World Languages and provides a context for integration of the continued development of language skills and cultural understanding with other content areas and the community beyond the classroom. The skill sets that apply to the exchange of written and oral information are expanded through emphasis on practicing speaking and listening strategies that facilitate communication, such as the use of circumlocution, guessing meaning in familiar and

unfamiliar contexts, and using elements of word formation to expand vocabulary and derive meaning. Additionally, students will continue to develop understanding of the culture that speaks the targeted language 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 students' 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 world language and culture in the community beyond the classroom is explored through the identification and evaluation of resources intended for native language speakers.

Spanish V *2128*

FSH500/501
- Grades 11-12
- 2 semesters, 2 credits
- Required Prerequisite: Spanish IV
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for all diplomas

Spanish V, a course based on Indiana's Academic Standards for World Languages, provides opportunities for students to interact and exchange information in culturally and socially authentic and/or simulated situations to demonstrate integration of language skills with understanding of Spanish-speaking culture. This course emphasizes the use of appropriate formats, varied vocabulary and complex language structures within student communication, both oral and written, as well as the opportunity to produce and present creative material using the language. Additionally, students will continue to develop understanding of Spanish-speaking culture through investigating the origin and impact of significant events and contributions unique to the target culture, comparing and contrasting elements that shape cultural identity in the target culture and the student's own culture, and explaining how the target language and culture have impacted other communities. This course further emphasizes the integration of concepts and skills from other content areas with the target language and cultural understanding, as well as the exploration of community resources intended for native Spanish speakers.

CAREER AND TECHNICAL EDUCATION PROGRAMS

In cooperation with Warren Central High School, Greenfield-Central juniors and seniors may attend classes at Walker Career Center. Students can receive four to eight credits per year depending upon which program they choose. Greenfield-Central provides bus transportation to and from Walker Career Center for most programs. Students who are accepted into a Walker program and choose to attend will be given information about this opportunity prior to the start of the school year. Adequate time is allowed for safe travel between Greenfield-Central High School and Walker Career Center for students who must provide their own transportation.

Students applying for admission to any program at the career center will fill out an application which will be reviewed by the student's counselor, along with one or more interviews. The student's attendance record, number of high school credits earned to that point, and high school discipline record will be reviewed. Additionally, teacher recommendations and the results of aptitude and interest testing may be used to help place the student in a program leading to a rewarding and satisfying career. Admission to any career and technical program at Walker Career Center will not be denied to anyone in the school corporation on the basis of race, sex, disability, or national origin including limited English proficiency.

CAREER & TECHNICAL EDUCATION COURSES AT GREENFIELD-CENTRAL HIGH SCHOOL

Construction Trades: HVAC I *5496*

VOH326/327
- Grades 11-12
- 2 semesters, 3 credits per semester
- Recommended Prerequisite: Introduction to Construction
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Construction Technology: HVAC I includes classroom and laboratory experiences focused on heat generation, ventilation, and cooling/refrigeration systems. This course introduces scientific and mathematical principles applicable in the installation, operation, and maintenance of HVAC systems. Types of units, parts, basic controls, functions, and applications will be covered. Additional topics include tool and meter use, temperature measurement, heat flow, the combustion process, and pipe installation practices. This course also

emphasizes health, safety, and welfare standards and codes as mandated by professional and governmental agencies.

Construction Trades: HVAC II *5498*

VOH328/329

- Grade 12
- 2 semesters, 3 credits per semester
- Required Prerequisite: Construction Trades: HVAC II
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as Quantitative Reasoning course
- Qualifies as WBL course for graduation pathways

Construction Technology: HVAC II builds on concepts introduced in HVAC I. This course will emphasize reading blueprints and other technical documents, as well as troubleshooting common mechanical and electrical problems encountered when servicing HVAC systems. Additional topics include: combustion testing, venting and air requirements, electrical control systems, and electrical motor basics. Students will hone their science and math skills in HVAC system installation, maintenance, or repair projects.

Radio and Television I *5986*

GCH410/411

- Grades 9-12
- 1 credit per block taken, maximum of 6 credits
- Recommended Prerequisites: Introduction to Communications; "C" or better average in English/Language Arts classes; Cumulative GPA of 2.0.
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Radio and Television I 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 operation 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. The purpose of this course is to serve as a staff member in Greenfield-Central's television production studio (GCTV Channels 19 & 95) and/or the 2000-watt stereo radio station WRGF 89.7 FM. Students may be required to perform before, during, and after school as air personalities, sportscasters, newscasters, technicians, production assistants, and audio/video editors. Students may also be expected to perform public service, promotional, programming, and management duties. Upon completion of the course, the students will be well versed in a variety of television production and radio broadcasting skills. These skills will prepare students for a career in video production, radio broadcasting, or further education in communications. Units studied: Radio Programming, Public Service, Station Promotions, News, Sports-casting, Air Personality, Video Camera Operation, Videotape, Scripts, Graphics, Master Control, Lighting, Set Design, Radio & Video Production, Editing, Broadcast Careers, Job Search, Cover Letter, Demo Tape, and Résumé.

Radio and Television Sports Broadcasting *5986*

GCH414/415

- Grades 10-12
- 1 credit per block taken, maximum of 6 credits
- Prerequisites: Students should have taken at least one semester of Radio/TV. Students should be juniors & seniors with reliable transportation. Sophomores that can drive or have reliable transportation will be considered. Students must be serious about broadcasting and be approved for the class by the instructors. New students (only juniors & seniors) will be accepted into the class after an audition involving reading sports news and doing play by play commentary. Knowledge of football, soccer, volleyball, basketball, softball, and baseball is required.
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Radio/TV Sports Broadcasting is a class for aspiring sports broadcasters. Students enrolled in this course are expected to regularly broadcast sporting events of all kinds. During the class time, students will be researching statistics, creating video and radio packages, conducting interviews, and creating episodes of "Let's Talk Sports" and other various sports programs. Students get a chance to broadcast on radio and television for a sports enthused community and school system. This course will essentially be a designated section of Radio/TV that will meet at the end of the day to allow for work to continue after school.

CAREER & TECHNICAL EDUCATION COURSES AT MT. VERNON HIGH SCHOOL

Aviation Flight *5524*

VOH600/601

- Grades 11-12
- 2 semesters, 3 credits per semester
- Recommended Prerequisite: Aerospace Engineering
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Aviation Flight familiarizes students with aviation technology and provides a historic overview of the field. This course also provides an overview of the careers and employment opportunities in the field of aviation. It prepares new student pilots for the maneuvers that are required to be performed during the Practical Test portion of the Private Checkride. In addition to these maneuvers, the concepts of basic aerodynamics, aircraft systems, instrument operation, weight and balance, flight physiology, and a basic working knowledge of aircraft power plants and their construction will be covered.

Aviation Operations *5528*

VOH602/603

- Grades 11-12
- 2 semesters, 3 credits per semester
- Recommended Prerequisite: Aerospace Engineering
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

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.

CAREER & TECHNICAL EDUCATION COURSES AT WALKER CAREER CENTER (WARREN CENTRAL HIGH SCHOOL)

Architectural Drafting and Design I *5640*

VOH332/333

- Grades 11-12
- 2 semesters, 2 credits per semester
- Recommended Prerequisite: Computers in Design and Production (CADD)
- Counts as a Directed Elective or Elective for all diplomas

Architectural Drafting and Design I gives students a basic understanding of the detailing skills commonly used by drafting technicians. Areas of study include lettering, sketching, proper use of equipment, and geometric constructions with emphasis on orthographic (multi-view) drawings that are dimensioned and noted to ANSI standards. This course includes the creation and interpretation of construction documents. Methods of geometric construction, three-dimensional drawing techniques, and sketching will be presented as well as elementary aspects of residential design and site work. Areas of emphasis will include print reading and drawing. This course also provides students with a basic understanding of the features and considerations associated with the operation of a computer-aided design (CAD) system. Students will gain valuable hands-on experience with Auto CAD. They will be expected to complete several projects relating to command topics. These topics include 2D drawing commands, coordinate systems, editing commands, paper and model space, inquiry commands, layers, plotting, text, and basic dimensioning.

Architectural Drafting and Design II *5652*

VOH432/433

- Grade 12
- 2 semesters, 2 credits per semester
- Recommended Prerequisite: Architectural Drafting and Design I
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as a Quantitative Reasoning course

• Qualifies as PBL course for graduation pathways

Architectural Drafting and Design II presents a history and survey of architecture and focuses on the creative design of buildings in a studio environment. It covers problems of site analysis, facilities programming, space planning, conceptual design, proper use of materials, selection of structure, and construction techniques. This course teaches students how to develop presentation drawings and requires oral presentations and critiques. Generation of form and space is addressed through basic architectural theory, related architectural styles, design strategies, and a visual representation of the student's design process. This course will focus on advanced CAD techniques, including fundamentals of three-dimensional modeling for design. The course includes an overview of modeling, graphical manipulation, part structuring, coordinate system, and developing strategies of modeling. Advanced CAD will enable the student to make the transition from 2D drafting to 3D modeling. Various architectural software packages and applications may be used.

Automotive Collision Repair I *5514*

VOH303/304
• Grades 11-12
• 2 semesters, 2 credits per semester
• Recommended Prerequisite: Introduction to Transportation
• Counts as a Directed Elective or Elective for all diplomas
• Qualifies as WBL course for graduation pathways

Automotive Collision Repair I includes classroom and laboratory experiences concerned with all phases of the repair of damaged vehicle bodies and frames, including metal straightening; smoothing areas by filing, grinding, or sanding; concealment of imperfections; painting; and replacement of body components including trim. Students examine the characteristics of body metals including the installation of moldings, ornaments, and fasteners with emphasis on sheet metal analysis and safety. Course coverage also includes instruction in personal and environmental safety practices as related to OSHA and other agencies that affect individuals working in the ground transportation technology areas. Additional instruction is given in the course on measurement principles and automotive fasteners. Instruction should also emphasize computerized frame diagnosis, computerized color-mixing, and computerized estimating of repair costs. Additional academic skills taught in this course include precision measurement and mathematical calibrations, as well as scientific principles related to adhesive compounds, color-mixing, abrasive materials, metallurgy, and composite materials.

Automotive Collision Repair II *5544*

VOH403/404
• Grade 12
• 2 semesters, 2 credits per semester
• Recommended Prerequisite: Automotive Collision Repair I
• Counts as a Directed Elective or Elective for all diplomas
• Qualifies as WBL course for graduation pathways

Automotive Collision Repair II introduces concepts in auto paint considerations with an emphasis on the handling of materials and equipment in modern automotive technologies. Instruction should build on concepts learned in Automotive Collision Repair I such as computerized frame diagnosis, computerized color-mixing, and computerized estimating of repair costs. Additional academic skills taught in this course include precision measurement and mathematical calibrations, as well as scientific principles related to adhesive compounds, color-mixing, abrasive materials, metallurgy, and composite materials.

Automotive Services Technology I *5510*

VOH312/313
• Grades 11-12
• 2 semesters, 2 credits per semester
• Counts as a Directed Elective or Elective for all diplomas
• Qualifies as WBL course for graduation pathways

Automotive Services Technology I is a one year course that encompasses the sub topics of the NATEF/ASE identified areas of Steering & Suspension and Braking Systems. This one year course offering may be structured in a series of two topics per year offered in any combination of instructional strategies of semester based or yearlong instruction. Additional areas of manual transmissions and differentials, automatic transmissions, air conditioning, and engine repair should be covered as time permits. This one year offering must meet the NATEF program certifications for the two primary areas offered in this course. This course provides the opportunity for dual credit for students who meet postsecondary requirements for earning dual credit and successfully complete the dual credit

requirements of this course. Mathematical skills will be reinforced through precision measuring activities and cost estimation/calculation activities. Scientific principles taught and reinforced in this course include the study of viscosity, friction, thermal expansion, and compound solutions. Written and oral skills will also be emphasized to help students communicate with customers, colleagues, and supervisors.

Automotive Services Technology II *5546*

VOH412/413
- Grade 12
- 2 semesters, 2 credits per semester
- Recommended Prerequisite: Automotive Services Technology I
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Automotive Services Technology II is a one year course that encompasses the sub topics of the NATEF/ASE identified areas of Electrical Systems and Engine Performance. This one year course offering may be structured in a series of two topics per year offered in any combination of instructional strategies of semester based or yearlong instruction. Additional areas of manual transmissions and differentials, automatic transmissions, air conditioning, and engine repair should be covered as time permits. This one-year offering must meet the NATEF program certifications for the two primary areas offered in this course. Mathematical skills will be reinforced through precision measuring activities and cost estimation/calculation activities. Scientific principles taught and reinforced in this course include the study of viscosity, friction, thermal expansion, and compound solutions. Written and oral skills will also be emphasized to help students communicate with customers, colleagues, and supervisors.

Commercial Photography *5570*

VOH374/375
- Grades 11-12
- 2 semesters, 1 credit per semester
- Recommended Prerequisite: Introduction to Communications
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Commercial Photography is an organized learning experience that includes theory, laboratory, and studio work as each relates to all phases of camera use, photographic processing, and electronic photographic editing. Instruction covers the topics of composition and color dynamics; contact printing and enlarging; developing film; lighting techniques and meters; large and medium format cameras and other current photographic equipment used for portrait, commercial, and industrial photography. Focus is placed on camera operation and composition related to traditional photographic principles and also tools and creative effects for editing and/or enhancing photographs. Instruction emphasizes the planning, development, and production of materials that visually communicate ideas and information.

Construction Trades I *5580*

VOH322/323
- Grades 11-12
- 2 semesters, 2 credits per semester
- Recommended Prerequisite: Introduction to Construction
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Construction Trades I focuses on classroom and laboratory experiences involving the formation, installation, maintenance, and repair of buildings, homes, and other structures. A history of construction, with an emphasis on future trends and career options, will also be covered. This course provides instruction in reading technical drawings and transforming those drawings into physical structures. The relationship of views and details, interpretation of dimension, transposing scale, tolerance, electrical symbols, sections, materials lists, architectural plans, geometric construction, three-dimensional drawing techniques, and sketching will be presented, as well as elementary aspects of residential design and site work. Areas of emphasis will include print reading and drawing, room schedules, and plot plans. Students will examine the design and construction of floor and wall systems and develop layout and floor construction skills. Blueprints and other professional planning definitions, building planning, foundations, wall coverings, roof and ceiling construction, and roof assembly Students will develop an understanding and interpretation of the Indiana Residential Code for one and two-family dwellings and safety practices, including Occupational Safety and Health Administration's Safety & Health Standards for the construction industry. Students learn through a hands-on experience building a custom home in a residential subdivision. The students

will be involved in the carpentry, roofing, insulation, painting, drywalling, masonry, plumbing, electrical, heating, and cooling.

Construction Trades II *5578*

VOH422/423
- Grade 12
- 2 semesters, 3 credits per semester
- Recommended Prerequisite: Construction Trades I
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as a Quantitative Reasoning course
- Qualifies as WBL course for graduation pathways

Construction Trades II builds on the formation, installation, maintenance, and repair skills learned in Construction Trades I. Information on materials, occupations, and professional organizations within the industry will be covered. 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. Students learn through a hands-on experience building a custom home in a residential subdivision. The students will be involved in the carpentry, roofing, insulation, painting, drywalling, masonry, plumbing, electrical, heating, and cooling.

Cosmetology I *5802*

VOH342/343
- Grade 11
- 2 semesters, 4 credits per semester
- Counts as a Directed Elective or Elective for all diplomas

Cosmetology I offers an introduction to cosmetology with an emphasis on basic practical skills and theories including roller control, quick styling, shampooing, hair coloring, permanent waving, facials, manicuring business and personal ethics, bacteriology, and sanitation. In the second semester greater emphasis is placed on the application and development of these skills. The State of Indiana requires a total of 1500 hours of instruction for licensure. Students interested in this course must complete an application and interview process, have a history of good school attendance, and have qualifying grades/GPA. The cost for necessary materials is approximately $450.00, which is subject to change.

Cosmetology II *5806*

VOH442/443
- Grade 12
- 2 semesters, 4 credits per semester
- Recommended Prerequisite: Cosmetology I
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Cosmetology II builds on concepts learned in Cosmetology I with an emphasis on the development of advanced skills in styling, hair coloring, permanent waving, facials and manicuring. Students will also study anatomy and physiology, professionalism, and salon management in relation to cosmetology. Students interested in this course must complete an application and interview process, have a history of good school attendance, and have qualifying grades/GPA. The cost for necessary materials is approximately $225.00, which is subject to change.

Culinary Arts and Hospitality I *5440*

VOH388/389
- Grades 11-12
- 2 semesters, 3 credits per semester
- Prerequisites: Nutrition and Wellness, Advanced Nutrition and Wellness, and Introduction to Culinary Arts and Hospitality
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Culinary Arts and Hospitality I 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; food preparation techniques and applications; principles of purchasing, storage, preparation, and service of food and food products; application of sanitation and safety principles to maintain safe and healthy food service and hospitality environments; use and maintenance of related tools and equipment; and application of management principles. Students will learn about current trends in the industry, classical food preparation methods, restaurant management, culinary math skills, customer service, and hospitality basics through the National Restaurant Association ProStart Curriculum while working in the Threshold Restaurant.

Culinary Arts and Hospitality II: Culinary Arts *5346*

VOH488/489

- Grade 12
- 2 semesters, 3 credits per semester
- Required Prerequisite: Culinary Arts and Hospitality I
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Culinary Arts and Hospitality II: Culinary Arts prepares students for occupations and higher education programs of study related to the entire spectrum of careers in the food industry, including, but not limited to, food production and services, food science, dietetics, nutrition, and baking and pastry arts. Major topics for this advanced course include basic baking theory and skills, introduction to breads, introduction to pastry arts, nutrition, nutrition accommodations and adaptations, cost control and purchasing, and current marketing and trends. Instruction and intensive laboratory experiences include commercial applications of principles of nutrition, aesthetic, and sanitary selection; purchase, storage, preparation, and service of food and food products; use and maintenance of related tools and equipment; baking and pastry arts skills; management of operations in food service, food science, or hospitality establishments; providing for the dietary needs of persons with special requirements; and related research, development, and testing. Intensive laboratory experiences with commercial applications are a required component of this course of study. Advanced Culinary Arts builds upon skills and techniques learned in Culinary Arts and Hospitality I, which must be successfully completed before enrolling in this advanced course. Students will learn about current trends in the industry, classical food preparation methods, restaurant management, culinary math skills, customer service, and hospitality basics through the National Restaurant Association ProStart Curriculum while working in the Threshold Restaurant.

Dental Careers I *5203*

VOH396/397

- Grade 12
- 2 semesters, 3 credits per semester
- Required Prerequisite: Health Science Education I
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Dental Careers I prepares the student for an entry level dental assisting position. Emphasis is placed on the clinical environment, chair-side assisting, equipment and instrument identification, tray set-ups, sterilization, and characteristics of microorganisms and disease control. In addition, oral, head, and neck anatomy, basic embryology, histology, tooth morphology, charting dental surfaces, and illness are all introduced. Students are instructed in dental anatomy, terminology, instruments, and materials with a hands-on approach to dental procedures in the simulated dental office classroom. Work experience becomes a part of the program second semester with a six-week internship. Through a new partnership with the IU School of Dentistry, students will have the opportunity to work beside IU dental students and practicing dentists in the new dental office located at the career center.

Early Childhood Education I *5412*

VOH316/317

- Grades 11-12
- 2 semesters, 3 credits per semester
- Recommended Prerequisites: Child Development and Advanced Child Development
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Early Childhood Education I prepares students for employment in early childhood education and related careers that involve working

with children from birth to 8 years (3rd grade) and provides the foundations for study in higher education that leads to early childhood education and other child-related careers. Major course topics include: career paths in early childhood education; promoting child development and learning; building family and community relationships; observing, documenting, and assessing to support young children and families; using developmentally effective approaches; using content knowledge to build meaningful curriculum, and becoming an early childhood education professional. The course provides an overview of the history, theory, and foundations of early childhood education as well as exposure to types of programs, curricula, and services available to young children. Students examine basic principles of child development, importance of family, licensing, and elements of quality care of young children. The course addresses planning and guiding developmentally appropriate activities for young children in various childcare settings; developmentally appropriate practices of guidance and discipline; application of basic health, safety, and nutrition principles when working with children; overview of management and operation of licensed child care facilities or educational settings; child care regulations and licensing requirements; and employability skills. The students supervise children while engaged in a wide variety of creative activities such as storytelling, music, and poems with actions, role playing, art, and learning centers. Students will serve as cadet teachers at the Warren Early Childhood Center.

Education Professions I *5408*

VOH416/417

- Grades 12
- 2 semesters, 2 credits per semester
- Recommended Prerequisites: Nutrition and Wellness, Child Development, Advanced Child Development, and Interpersonal Relationships
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Education Professions I 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.

Electronics and Computer Technology I *5684*

VOH337/338

- Grades 11-12
- 2 semesters, 2 credits per semester
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Electronics and Computer Technology I introduces students to the fundamental electronic concepts necessary for entry into an electronic and computer systems career. Classroom and laboratory experiences will allow students to begin their career preparation in the fundamental electronics concepts of Jobsite Skills, DC Basics, AC Basics, and Personal Computer Design, and will incorporate safety, technical writing, mathematical concepts, and customer service.

Electronics and Computer Technology II *5694*

VOH437/438

- Grade 12
- 2 semesters, 2 credits per semester
- Prerequisite: Electronics and Computer Technology I
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as a Quantitative Reasoning course
- Qualifies as WBL course for graduation pathways

Electronics and Computer Technology II provides the opportunity for students to continue with foundational electronic concepts including circuit analysis and digital electronics modules. This course focuses on applying electronic concepts to real-world solutions in the fields of: industrial technology, emerging electronic technologies, residential and commercial electronic communication, and automation. Industry certifications and additional post-secondary education are critical components of this pathway. Classroom, laboratory, and work-based experiences in the fundamental electronics concepts of circuit analysis and digital electronics as well as one

of the optional modules will incorporate safety, technical writing, mathematics, and customer service.

Graphic Design and Layout *5550*

VOH372/373
- Grades 11-12
- 2 semesters, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Graphic Design and Layout includes organized learning experiences that incorporate a variety of visual art techniques as they relate to the design and execution of layouts and illustrations for advertising, displays, promotional materials, and instructional manuals. Instruction also covers advertising theory and preparation of copy, lettering, posters, and artwork in addition to incorporation of photographic images. Communication skills will be emphasized through the study of effective methods used to design commercial products that impart information and ideas. Advanced instruction might also include experiences in various printing processes as well as activities in designing product packaging and commercial displays or exhibits.

Health Science Education I *5282*

VOH354/355
- Grade 11
- 2 semesters, 2 credits per semester
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

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, and 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.

Health Science Education II: Special Topics *5286*

VOH454/455
- Grade 12
- 2 semesters, 3 credits per semester
- Prerequisite: Health Science Education I
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Health Science Education II: Special Topics is an extended laboratory experience designed to address the advancement and specialization of healthcare careers through the provision of a specialized course for a specific healthcare workforce need in the school's region. Practicum is at a qualified clinical site, and is designed to give the student the opportunity to practice technical skills previously learned in the classroom; all while working under the direction of the appropriately licensed healthcare professional. Throughout the course, students will focus on learning about the healthcare system and employment opportunities at a variety of entry levels; an overview of the healthcare delivery systems, healthcare teams, and legal and ethical considerations; and obtaining the knowledge, skills and attitudes essential for providing basic care in a variety of healthcare settings. Additionally, students will build their essential job related skills for providing basic care appropriate for their healthcare setting and audience. Course standards and curriculum must be tailored to the specific healthcare profession, preparing students to advance in this career field, and where applicable, provide students with opportunities for certification or dual credit. This course also provides students with the knowledge, attitudes, and skills needed to make the transition from high school, to post-secondary opportunities, and to work in a variety of health science careers. Students are encouraged to focus on self-analysis to aid in their career selection. Job seeking and job maintenance skills, personal management skills, and completion of the application process for admission into a post-secondary program are also areas of focus. Participation in HOSA encourages the development of leadership, communication and career related skills, and opportunities for community service

Industrial Automation and Robotics I *5610*

VOH324/325
- Grades 11-12
- 2 semesters, 2 credits per semester
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Industrial Automation and Robotics I will introduce students to design and programming concepts in basic robots that use sensors and actuators to solve specific problems and complete specific tasks. This will include introductory programming autonomous mode. Students will also learn to program a humanoid robot, tethered and in autonomous mode, able to react to specific circumstances and perform human-like tasks when programming is complete. This course will provide fundamentals in industrial robotics basic programming and operations. Students will program an industrial robot through explanation of a teach pendant and use proper programming commands with hands-on utilization of an industrial robot. This course will provide fundamental knowledge and skills in basic lasers, pneumatics, hydraulics, mechanics, basic electronics, and programmable logic controllers along with an understanding of career pathways in this sector.

Industrial Automation and Robotics II *5612*

VOH424/425
- Grade 12
- 2 semesters, 2 credits per semester
- Required Prerequisite: Industrial Automation and Robotics I
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as a Quantitative Reasoning course
- Qualifies as WBL course for graduation pathways

Industrial Automation and Robotics II focuses on industrial robots, programming PLC's, automating cells, advanced programming, and designing/building task oriented robots. Students will engage in active learning, critical thinking, and problem solving through advanced robotic procedures and processes. Students will learn industrial robotic programming languages, as well as strategies for improving efficiency through automation. Students will study basic computer numerical controlled (CNC) machining and will combine automation and CNC machining to perform common industrial tasks. They will also apply knowledge to real world situations to create working solutions.

Information Technology Support I *5230*

VOH344/345
- Grades 11-12
- 2 semesters, 2 credits per semester
- Recommended Prerequisite: Digital Applications and Responsibility
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Computer Tech Support allows students to explore how computers work. Students learn the functionality of hardware and software components as well as suggested best practices in maintenance and safety issues. Through hands-on activities and labs, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems.

Networking I *5234*

VOH435/436
- Grade 12
- 2 semesters, 2 credits per semester
- Recommended Prerequisite: Computer Tech Support
- Counts as a Directed Elective or Elective for all diplomas

Networking I introduces students to local and wide area networks, home networking, networking standards using the IEEE/OSI Model, network protocols, transmission media and network architecture/topologies. Security and data integrity are introduced and emphasized throughout this course, which offers students the critical information needed to successfully move into a role as an IT professional supporting networked computers. Concepts covered will include TCP/IP client administration, planning a network topology, configuring the TCP/IP protocol, managing network clients, configuring routers and hubs, as well as creating a wireless LAN.

Precision Machining I 5782

VOH362/363
- Grades 11-12
- 2 semesters, 2 credits per semester
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Precision Machining I provides students with a basic understanding of the precision machining processes used in industry, manufacturing, maintenance, and repair. The course instructs the student in industrial safety, terminology, tools and machine tools, measurement and layout. Students will become familiar with the setup and operation of power saws, drill presses, lathes, milling machines, grinders and an introduction to CNC (computer numerically controlled) machines.

Precision Machining II 5784

VOH462/463
- Grade 12
- 2 semesters, 2 credits per semester
- Prerequisite: Precision Machining I
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Precision Machining II is a more in-depth study of skills learned in Precision Machining I, with a stronger focus on CNC setup, operation, and programming. Classroom activities will concentrate on precision set-up and inspection work as well as machine shop calculations. Students will develop skills in advanced machining and measuring parts involving tighter tolerances and more complex geometry. A continued focus on safety will also be included.

Radio and Television I *5986*

VOH394/395
- Grades 11-12
- 2 semesters, 2 credits per semester
- Recommended Prerequisite: Introduction to Communications
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Radio and Television I 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 operation 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.

Radio and Television II *5992*

VOH498/499
- Grade 12
- 2 semesters, 2 credits per semester
- Recommended Prerequisites: Radio and Television I
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as WBL course for graduation pathways

Radio and Television II prepares students for admission to television production programs at institutions of higher learning. Students train on professional equipment creating a variety of video projects. Students enrolling in this program should have successfully completed Radio and Television I. During this second-year program students integrate and build on first-year curriculum while mastering advanced concepts in production, lighting, and audio.

Welding Technology I *5776*

VOH386/387
- Grades 11-12
- 2 semesters, 2 credits per semester
- Counts as a Directed Elective or Elective for all diplomas

• Qualifies as WBL course for graduation pathways

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

Welding Technology II *5778*

VOH486/487
• Grade 12
• 2 semesters, 2 credits per semester
• Prerequisite: Welding Technology I
• Counts as a Directed Elective or Elective for all diplomas
• Qualifies as WBL course for graduation pathways

Welding Technology II builds on the Gas Metal Arc welding, Flux Cored Arc Welding, Gas Tungsten Arc welding, Plasma Cutting, and Carbon Arc skills covered in Welding Technology I. Emphasis is placed on safety at all times. OSHA standards and guidelines endorsed by the American Welding Society (AWS) are used. Instructional activities emphasize properties of metals, safety issues, blueprint reading, electrical principles, welding symbols, and mechanical drawing through projects and exercises that teach students how to weld and be prepared for college and career success.