

# COURSE DESCRIPTIONS



**SOUTHRIDGE**  
HIGH SCHOOL

**EVERY STUDENT**

**EVERY DAY**



# WELCOME



**GREG GOGEL**

Principal

Southridge High School



Welcome to Southridge High School! Southridge is pleased to offer comprehensive, career focused pathways to help guide their course selections through their high school years, while at the same time having room to explore other courses and opportunities our school has to offer. We are committed to fulfilling our school mission of developing college and career readiness through excellence, innovation, and opportunity for every student, every day.

Each pathway is designed to offer dual credit opportunities and or certifications. Through extensive collaboration with area schools and businesses, a graduate profile has been created to showcase the skills necessary for post secondary choices. We encourage all students to position themselves to have internships, jobs, and course work that will allow them to be off campus or earn dual credit for a portion of their day. These experiences allow students to gain valuable insight to the career of their choice and network with other professionals.

Southridge High School is in the final stages of being designated by CELL (Center for Excellence of Leadership & Learning) as an Early College High School. Through partnerships with Ivy Tech, University of Southern Indiana, Indiana University, and Vincennes University, Southridge is able to provide unique opportunities for college and career readiness. Southridge offers over 50 dual credit courses in both academic, career, and technical education courses. Although some prerequisite scores on the PSAT math, reading, and writing, students have the opportunity throughout their 8th, freshman, and sophomore years to demonstrate proficiencies.

Through the Early College designation, Southridge will remain committed to offering courses that have been designated as part of the Indiana College Core. As students surpass the 30 credit threshold that are aligned to the Indiana College Core, those credits could go towards 30 credit hours at a university in Indiana. This choice is often taken by students interested in a 4-year college.

Southridge High School has partnered with Toyota to provide a unique class experience for students wishing to pursue employment with the company or to explore the training and coursework. This opportunity to juniors and seniors allow students to earn money as they take classes and work at the Toyota facility. Other pathways include partnerships with the Patoka Valley Vocational Cooperative. This cooperative allows students to pursue a multitude of vocational and technical career fields that support their degree.

Each pathway promises to save students a lot of time and money while pursuing a college certificate or degree.

We are so glad you are part of our Southridge family and community. We look forward to working with you, and as always, **RAIDER PRIDE!**



# REQUIREMENTS



Students graduating in 2023 and beyond must satisfy all three of the Graduation Pathway requirements as shown below by completing **AT LEAST ONE** of the graduation pathway options **WITHIN EACH PATHWAY**.

**P1**

## HIGH SCHOOL DIPLOMA

Students must meet the statutorily defined diploma credit and curricular requirements:

- Core 40 Diploma
- Core 40 Diploma with Academic Honors
- Core 40 Diploma with Technical Honors

**P2**

## EMPLOYABILITY SKILLS

Students must complete at least one of the following:

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

**P3**

## POSTSECONDARY-READY COMPETENCIES

Students must choose a Career-Technical Education Concentrator:

- Engineering & Manufacturing
- Business & Entrepreneurship
- Health Science
- Human Services
- Fine Arts
- Mechanics & Logistics
- Agriculture

... then must complete at least one of the following:

- Honors Diploma
- ACT
- SAT
- ASVAB
- State- and Industry- recognized Credential or Certification
- Federally recognized Apprenticeship
- Career-Technical Education Concentrator
- AP/Dual Credit courses or College Level Examination Program (CLEP) Exams



# PATHWAY 1

## HIGH SCHOOL DIPLOMA

Students must complete at least **ONE** of the following:

**P1**



### CORE40 DIPLOMA

**8 ENGLISH / LANGUAGE ARTS CREDITS**

- 2: English 9 or 9H
- 2: English 10 or 10H
- 2: English 11
- 2: English 12
- 2-8: English as a New Language

**6 SOCIAL STUDIES CREDITS**

- 2: World History / Civilization or  
2: Geography / History of the World
- 1: U.S. Government
- 2: U.S. History
- 1: Economics

**6 MATHEMATICS CREDITS**

- 2: Algebra 1
- 2: Geometry
- 2: Algebra 2 or 2H

**2 PHYSICAL EDUCATION CREDITS**

- 2: Physical Education
- 2: PE Credit from Middle School
- 2: High School Sport Credit

**6 SCIENCE CREDITS**

- 2: Biology 1
- 2: Chemistry 1, or  
2: Physics 1, or  
2: Integrated Chem/Physics
- 2: any Core 40 Science course

**1 HEALTH & WELLNESS CREDIT**

- 1: Health

**4 REQUIRED CREDITS**

- 2: Principles of Business Operations and Technology
- 1: Preparing for College and Careers
- 1: Personal Financial Responsibility

**5 DIRECTED ELECTIVES**

World Languages:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Fine Arts:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Career & Technical:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**6 ELECTIVES**

College & Career Pathway recommended

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_



Students must complete at least **ONE** of the following:

**P1**



### **CORE40 DIPLOMA WITH ACADEMIC HONORS**

For the Core 40 with Academic Honors diploma, 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 a “C” or better in courses that will count toward the diploma.
- Have a grade point average of a “B” or better.
- Complete one of the following:
  - A. Earn 4 credits in 2 or more AP courses and take corresponding AP exams
  - B. Earn 6 verifiable transcribed college credits in dual credit courses from approved dual credit list
  - C. Earn the following:
    - 1. A minimum of 3 verifiable transcribed college credits from approval dual credit list,
    - 2. 2 credits in AP courses and corresponding AP exams,
  - D. Earn a composite score of 1250 or higher on the SAT and a minimum of 560 on math and 580 on the evidence based reading and writing section
  - E. Earn an ACT composite score of 26 or higher and complete written section



### **CORE40 DIPLOMA WITH TECHNICAL HONORS**

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

- Complete all requirements for Core 40.
- Earn 6 credits in the college and career preparation courses in a state-approved College & Career Pathway and one of the following:
  - Pathway designated industry-based certification or credential, or
  - Pathway dual credits from the lists of priority courses resulting in 6 transcribed college credits
- Earn a grade of “C” or better in courses that will count toward the diploma.
- Have a grade point average of a “B” or better.
- Complete one of the following,
  - Any one of the options (A – E) of the Core 40 with Academic Honors
  - Earn the following minimum scores on WorkKeys; Workplace Documents, Level 6; Applied Math, Level 6; and Graphic Literacy, Level 5.
  - Earn the following minimum score(s) on Accuplacer: Writing 80, Reading 90, Math 75.



# PATHWAY 2

## EMPLOYABILITY SKILLS

Students must complete at least **ONE** of the following:



### PROJECT-BASED LEARNING

- PLTW: Civil Engineering and Architecture
- PLTW: Principles of Engineering
- PLTW: Introduction to Engineering Design
- PLTW: Principles of Biomedical Sciences
- PLTW: Medical Interventions



### SERVICE-BASED LEARNING

- School-sanctioned sport: Football, Volleyball, Tennis, Golf, Cross Country, Soccer, Basketball, Track & Field, Unified Track, Wrestling, Baseball, Softball, Bowling
- School-sanctioned club: Academic Teams, Spell Bowl, Band, Theatre, Cheerleading, National Honor Society, Mayor's Youth Council, Key Club, Business Professionals of American, Future Farmers of America, Natural Helpers, Freshman Mentors, Spanish Club, German Club, Yearbook, Student Council, Fellowship of Christian Athletes, Art Club



### WORK-BASED LEARNING

- Employment Verification Signed Letter  
\*See Guidance Office for Form
- Work Ethic Certificate  
JAG Course 0509
- Advanced Manufacturing I & II
- Automotive Services Technology I & II
- Aviation Flight
- Aviation Operations
- Construction Trades I
- Criminal Justice I & II
- Education Professions I & II
- Emergency Medical Services
- Fire & Rescue
- Health Science Education: CNA
- Health Science Education: HOSA
- Health Science Education: Pharmacy
- Industrial Automation & Robotics I & II
- Information Technology Support I & II
- Precision Machining I
- Radio & Television I
- Toyota 4T
- Welding Technology I & II
- Work-Based Learning  
\*Must have completed 1 class in career area, have a 95% attendance rate, and 2.5 GPA
- Cooperative Education (ICE)  
\*Must have 90% attendance rate and NO history of behavior issues at school





# PATHWAY 3

## POSTSECONDARY-READY COMPETENCIES

Students must complete at least **ONE** of the following:



### HONORS DIPLOMA

See page 5



### ACT

Students must meet the college-ready benchmarks set by ACT. As of 2021\*, the benchmarks are as follows: 18 in English; 22 in math; 22 in reading; and 23 in science. Students may sign up to take the ACT at [www.actstudent.org](http://www.actstudent.org). \*Benchmark scores are subject to change.



### SAT

Students must meet the college-ready benchmarks set by CollegeBoard. As of 2021\*, the benchmarks are as follows: 480 in evidence-based reading and writing and 530 in math. Students may register to take the SAT at [www.collegeboard.org](http://www.collegeboard.org). \*Benchmark scores are subject to change.



### ASVAB

The ASVAB will be given once per semester at Southridge High School. A qualifying score of 31 will meet this requirement. The minimum score required to qualify for enlistment varies across the different branches of service as can be seen below.

Army and Marines – Score of 31

Air Force – Score of 36

Navy – Score of 35

Coast Guard – Score of 40



### STATE- AND INDUSTRY- RECOGNIZED CREDENTIAL OR CERTIFICATION

See Course Descriptions beginning on page 20 or Industry Certifications beginning on page 47.



### CAREER-TECHNICAL EDUCATION (CTE) CONCENTRATOR

Class of 2023 and after must earn a “C” average in at least 2 advanced CTE courses in a prescribed pathway.

Engineering and Manufacturing

Health Science

Mechanics and Logistics

Business and Entrepreneurship

Human Services

Agriculture

Fine Arts



### AP/DUAL CREDIT COURSES OR COLLEGE LEVEL EXAMINATION PROGRAM (CLEP) EXAMS.

Students must earn a “C” average or higher in at least three courses. At least one AP/Dual Credit course or CLEP exam needs be in a core content area and/or be a part of a defined CTE curricular sequence. Students pursuing liberal arts tracks must have at least one course corresponding with the Core Transfer Library (CTL).



# PATHWAY 3

## POSTSECONDARY-READY COMPETENCIES



### SCHOOL OF ENGINEERING & MANUFACTURING

#### Is this the Pathway for you?

- Are you curious about how systems/things work?
- Do you like taking time to work through a problem?
- Do you spend time taking things apart and putting them back together?
- Do you enjoy creating, inventing, or imagining new and different ways to do things?
- Are you interested in how things work?
- Do you wonder how things are made?
- Do you like to use math/science skills to build things?

#### CAREERS to explore

Quality Engineering	Construction	Electrician
Mechanical Engineering	Surveyor	Pipe Fitters
Architect	Electrical Engineer	Ironworkers

#### Course work:

##### Engineering

- Introduction to Engineering and Design (DC)
- Principles of Engineering (DC)
- Civil Engineering and Architecture (DC)
- Engineering Design and Development

##### Industrial Maintenance

- Introduction to Advanced Manufacturing and Logistics
- Adv. Manufacturing I
- Adv. Manufacturing II
- Choices: Toyota 4T Program, Automation and Robotics I, Automation and Robotics II

##### Construction

- Introduction to Construction
- Construction Trades I
- Construction Capstone

##### Precision Machining I

- Principles of Precision Machining
- Precision Machining Fundamentals
- Advanced Precision Machining

##### Welding

- Welding Technology I
  - Principles of Welding Technology
  - Shielded Metal Arc Welding
  - Gas Welding Processes
- Welding Technology II

#### PRECISION MACHINING DUAL CREDITS

2	PMTD 110	Vincennes U.
1	PMTD 110L	Vincennes U.
6	PMTD 120	Vincennes U.
2	PMTD 105	Vincennes U.

#### ENGINEERING DUAL CREDITS

3	DESN 101	Ivy Tech
3	DESN 104	Ivy Tech
3	DESN 105	Ivy Tech
3	DESN 113	Ivy Tech

#### WELDING DUAL CREDITS

3	WELD 100	Ivy Tech
3	WELD 108	Ivy Tech
3	WELD 207	Ivy Tech
3	WELD 272	Ivy Tech
3	WELD 206	Ivy Tech
3	WELD 208	Ivy Tech
3	WELD 273	Ivy Tech

#### AUTOMATION & ROBOTICS DUAL CREDITS

3	MFNG 130	Vincennes U.
3	CIMT 110	Vincennes U.
3	CIMT 110L	Vincennes U.
3	CIMT 220	Vincennes U.
2	CIMT 201	Vincennes U.
2	CIMT 202	Vincennes U.

#### CONSTRUCTION TRADES I & CAPSTONE DUAL CREDITS

3	CNST 120	Vincennes U.
1	CNST 100	Vincennes U.
2	CNST 180	Vincennes U.
1	CNST 180 L	Vincennes U.
2	CNST 105	Vincennes U.
2	CNST 105L	Vincennes U.
2	CNST 160	Vincennes U.
2	CNST 160L	Vincennes U.
2	CNST 155	Vincennes U.
1	CNST 155L	Vincennes U.
3	CNST 261	Vincennes U.
2	CNST 220	Vincennes U.
2	CNST 272	Vincennes U.





# PATHWAY 3

## POSTSECONDARY-READY COMPETENCIES



### SCHOOL OF BUSINESS & ENTREPRENEURSHIP

#### Is this the Pathway for you?

- Are you someone who likes to work with data to solve problems?
- Do you like to interact with all kinds of people?
- Do you like to come up with new ideas?
- Do you like to follow directions to complete a task?
- Do you consider yourself a leader who could be part of a team?
- Are you interested in being a team captain, officer, or having a role in an organization?
- Have you ever dreamed of owning your own business?

ACCOUNTING DUAL CREDITS		
3	ACCT 101	Vincennes U.

IT SUPPORT / CYBER SECURITY DUAL CREDITS		
3	COMP 177	Vincennes U.
3	CMET 236	Vincennes U.
3	CMET 151	Vincennes U.
3	CMET 140	Vincennes U.
2	CNET 185	Vincennes U.

#### CAREERS to explore

Accountant	Budget Analyst	Human Resource Manager
Account Collector	Business Owner	Insurance Agent
Advertising	Buyer	Loan Officer
Appraiser	Cost Estimator	Sales
Auditor	Entrepreneur	
Banking	Financial Analyst	

#### Course work:

##### Accounting

- Principles of Business Management
- Advanced Accounting (DC)
- Accounting Capstone
- Work-based learning

##### Entrepreneurship

- Principles of Entrepreneurship
- Accounting Fundamentals
- New Venture Development
- Small Business Operations
- Work-based learning

##### Information Technology

- Principles of Business Management
- IT Support/Cybersecurity (DC's)
- Work-based learning

##### Marketing

- Principles of Business Management
- Marketing Fundamentals
- Work-based learning

#### Student Leadership Organization

- BPA Business Professionals of America



# PATHWAY 3

## POSTSECONDARY-READY COMPETENCIES



### SCHOOL OF HEALTH SCIENCE

#### Is this the Pathway for you?

- Is this pathway for you?
- Do you get satisfaction from helping people?
- Do you enjoy dealing with a problem that isn't easily solved or doesn't have one correct answer?
- Are you comfortable with situations that are unpredictable and rapidly changing?
- Do you like listening and working with others who have differing viewpoints?
- Are you interested in math and science?
- Do you enjoy doing puzzles, exploring and solving problems?

HOSA DUAL CREDITS		
3	HSGN 102	Vincennes U.

OPTIONAL HOSA DUAL CREDITS		
3	HIMT 110	Vincennes U.

CNA DUAL CREDITS		
5	HSGN 200	Vincennes U.
3	HSGN 102	Vincennes U.
2	HSGN 106	Vincennes U.

CNA CERTIFICATION		
CNA Certification		

#### CAREERS to explore

Athletic Trainer	Dietician	Nurse's Aide
Audiologist	Medical Doctor	Phlebotomist
Chiropractor	Medical Technician	Physicians Assistant
Dental Assistant	Nurse	Pharmacist
Dentist	Nurse Practitioner	Ultrasound Technician

#### Course work:

##### Biomedical

- Principles of Biomedical Sciences
- Anatomy and Physiology
- Medical Interventions
- Health Science Education (HOSA)

##### Nursing

- Principles of Biomedical Sciences
- Anatomy and Physiology
- Health Science Education (HOSA)
- Health Science Education (CNA)
- Emergency Medical Services (EMT)
- Medical Terminology

##### Other Courses of Interest

- Psychology
- Chemistry
- Physics
- Pre-Calculus
- Speech
- Biology II



# PATHWAY 3

## POSTSECONDARY-READY COMPETENCIES



### SCHOOL OF HUMAN SERVICES

#### Is this the Pathway for you?

- Are you open-minded when helping others solve problems?
- Are you self-motivated? Are you interested in helping others?
- Are you compassionate and empathetic?
- Do you have a desire for a career in public service?
- Do you have an interest in human development and behavior?

EDUCATION PROFESSIONALS DUAL CREDITS		
3	EDUC 291	Vincennes U.
3	EDUC 292	Vincennes U.
3	EDUC 200	Vincennes U.

HUMAN & SOCIAL SERVICES DUAL CREDITS		
3	SOCL 153	Vincennes U.
3	SOCL 164	Vincennes U.
3	SOCL 261	Vincennes U.
3	SOCL 260	Vincennes U.
3	SOCL 180	Vincennes U.
3	PSYC 218	Vincennes U.
3	PSYC 291	Vincennes U.

CRIMINAL JUSTICE DUAL CREDITS		
3	LAW 100	Vincennes U.
3	LAW 101	Vincennes U.
3	LAW 150	Vincennes U.
3	LAW 145	Vincennes U.

#### CAREERS to explore

Administration	Lawyer	Counselor
Counselor	Police officer	Teaching Assistant
Early Childcare Provider	Social Worker	Teacher
Judge	Substance Abuse	

#### Course work:

##### Education

- Principles of Business Management
- Education Professions I
  - Principles of Teaching
  - Child and Adolescent Development
  - Teaching and Learning
- Education Professions Capstone

##### Criminal Justice

- Principles of Business Management
- Criminal Justice I
  - Principles of Criminal Justice
  - Law Enforcement Fundamentals
  - Corrections and Cultural Awareness
- Work-based learning

##### Social Work

- Principles of Business Management
- Human and Social Services
  - Principles of Human Services
  - Understanding Diversity
  - Relationships and Emotions

##### Other Courses of Interest

- Psychology
- Sociology
- Speech
- Marketing



# PATHWAY 3

## POSTSECONDARY-READY COMPETENCIES



SCHOOL OF  
FINE ARTS

### Is this the Pathway for you?

- Are you able to communicate your ideas to diverse audiences?
- Are you passionate enough to overcome obstacles?
- Do ideas inspire you to create?
- Do you enjoy drawing, performing or writing stories?
- Do you like to communicate your ideas?
- Do you seek opportunities to learn about and be engaged in history and culture?
- Does the idea of working in or being a part of a community that creates excite you?

VISUAL ARTS DUAL CREDITS		
3	VISC 101	Ivy Tech
3	VISC 111	Ivy Tech

MUSIC DUAL CREDITS		
3	HUMA 118	Ivy Tech

### CAREERS to explore

Advertising	Curator	Media	Technical writer
Animation	Editor	Musician	Textiles
Announcer	Education	Performing arts	Writer
Artist	Fashion	Photographer	Visual arts
Camera operator	Interior design	Reporter	
Critic	Journalism	Sound engineer	

### Course work:

#### Fine Arts

- 2D/3D Art
- Principles of Business Management
- 2D/3D Art
- Adv. 2D/ Adv. 3D Art

#### Music

- Principles of Business Management
- Beginning Band
- Inter Concert Band
- Advanced Concert Band

#### Choir

- Principles of Business Management
- Girls Choir
- Intermed Mixed Choir
- Adv. Choir

#### Other Courses of Interest

- Digital Media
- Design Fundamentals
- Adv. Fine Arts CC
- Music History Dual Credit



# PATHWAY 3

## POSTSECONDARY-READY COMPETENCIES



### SCHOOL OF MECHANICS & LOGISTICS

#### Is this the Pathway for you?

- Are you curious about how systems/things work?
- Do you like taking time to work through a problem?
- Do you spend time taking things apart and putting them back together?
- Are you interested in learning how to fix a car?
- Are you interested in learning about a car's engine?

AUTOMOTIVE DUAL CREDITS		
3	AUTI 121	Ivy Tech
1	AUTI 111	Ivy Tech
3	AUTI 100	Ivy Tech
3	AUTI 122	Ivy Tech
3	AUTI 131	Ivy Tech
3	AUTI 145	Ivy Tech

AVIATION DUAL CREDITS		
2	AMNT 100	Vincennes U.
3	AFLT 258	Vincennes U.
3	AMNT 210	Vincennes U.
4	AFLT 100	Vincennes U.

CREDENTIALS	
ASE Certification	
Maintenance & Light Repair Cert.	

#### CAREERS to explore

Automotive Engineer	Tire Technician
Auto Mechanic	Auto Body Repair Technician
Auto Electrician	

#### Course work:

##### Automotive

- Introduction to Transportation
- Automotive Services Technology I
  - Principles of Automotive Services
  - Brake Systems
  - Steering and Suspensions
- Automotive Service Capstone

##### Aviation

- Aviation I
  - Principles of Aviation Management
  - Private Pilot Theory
  - Aviation Safety and Operations
- Aviation II
  - Aviation Flight



# PATHWAY 3

## POSTSECONDARY-READY COMPETENCIES



### SCHOOL OF AGRICULTURE

#### Is this the Pathway for you?

- Is this pathway for you?
- Do you get satisfaction from helping people, animals and/or the environment?
- Do you like to work both inside and outside?
- Do you enjoy math and science?
- Do you enjoy working with your hands?
- Are you able to adapt to different working environments?

AGRICULTURE DUAL CREDITS		
3	AGBS 101	Vincennes U.
3	AGRI 100	Ivy Tech
3	AGRI 103	Ivy Tech
3	AGRI 106	Ivy Tech
3	AGRI 107	Ivy Tech
3	AGRI 108	Ivy Tech
3	AGRI 109	Ivy Tech

#### CAREERS to explore

- |             |                 |                    |
|-------------|-----------------|--------------------|
| Ag Engineer | DNR Officer     | Teacher            |
| Agronomist  | Manager         | Wildlife Biologist |
| Arborist    | Plant Biologist |                    |

#### Course work:

##### Agriculture

- Principles of Agriculture
- Animal Science
- Food Science
- Agriscience Plants or Animals

##### Other Courses

- Plant and Soil Science
- Agriculture Power, Structure and Technology
- Agribusiness Management

#### Student Leadership Organization

- FFF Future Farmers of America





# ICON KEY

## KEY

9	10	11	12
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### GRADE LEVEL OFFERING

This key tells you which grades are allowed to take this course. For this example, the class would only be available to students entering the 11th or 12th grade.

4/2	CREDITS/SEMESTERS
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### CREDITS/SEMESTERS

This shows how many credits will be earned in the class and how many semesters it lasts. In this case, the course is 2 credits per semester for 2 semesters for a total of 4 credits / 2 semesters.

6	CREDITS MAX
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### CREDITS MAX

Some courses can be taken multiple times, but have a maximum of how many credits can be earned toward graduation.

2	DUAL CREDITS
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### DUAL CREDITS

This shows the number of college credits that can be earned during this course.



### REQUIRED

This course is required for graduation.



### WEIGHTED

This course is weighted.



### ONLINE ONLY

This course is only offered online.



### QUANTITATIVE REASONING

This course counts as a quantitative reasoning course, which is required each year of high school.



### INDIANA COLLEGE CORE

Is a block of 30 credit hours of general education college-level coursework that transfers seamlessly among all Indiana public colleges and universities.



### PATHWAY 2: EMPLOYABILITY SKILLS

Students can meet the Employability Skills within the Graduation Pathways by enrolling and passing this course.



### PATHWAY 3: POSTSECONDARY-READY COMPETENCIES

Students can meet the Postsecondary-Ready Competencies within the Graduation Pathways by earning a certification through this course.



### COLLEGE CREDIT

Students can earn both high school credit and early college credit through Ivy Tech, Vincennes University, the University of Southern Indiana, or Indiana University.



# EARLY COLLEGE

## INDIANA COLLEGE CORE



### INDIANA COLLEGE CORE

The **Indiana College Core** is a block of 30 credit hours of general education college-level coursework that transfers seamlessly among all Indiana public colleges and universities.

Students who earn the **Indiana College Core** are likely to succeed.

About   
**94%**

of high school students who earned the **Indiana College Core** went on to attend college.

  
**70%**  
of **Indiana College Core** earners

met benchmarks for early success in college. Students demonstrating early college success:

- 1) do not require remediation in math or English before beginning college level work;
- 2) complete all courses they attempt in their first year of college; and
- 3) persist to their second year of college.

More high school students are earning the **Indiana College Core**.



The number of high school students earning the **Indiana College Core** (established in 2012) has grown from 11 in the graduating class of 2013 to 1,638 in the class of 2019.

The **Indiana College Core** offers significant cost savings for students and families.

Students can earn the **Indiana College Core** through dual credit in high school for thousands less than earning the same credits at a two- or four-year institution.

**<\$750**  
**INDIANA COLLEGE CORE**  
**THROUGH DUAL CREDIT**

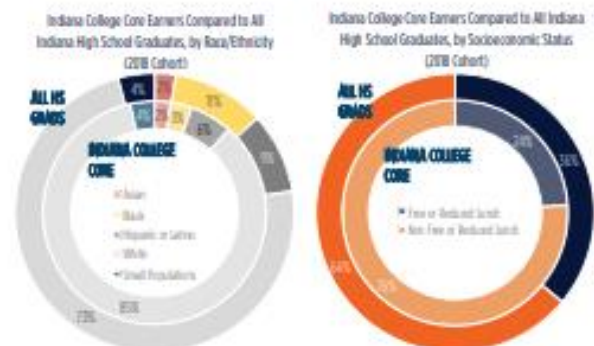
**\$4,200-\$5,700**  
**TWO-YEAR INSTITUTIONS**

**\$7,200-\$10,500**  
**FOUR-YEAR INSTITUTIONS**

More students earn the **Indiana College Core**, but gaps remain.

Students who earn the **Indiana College Core** are more likely to be White and come from higher-income households.

Only **1 in 5** Indiana high schools currently offer\* the **Indiana College Core**.



\* This means at least one student of the school earned the **Indiana College Core**.



# EARLY COLLEGE

## INDIANA COLLEGE CORE

Students must satisfy the following requirements to be awarded the Indiana College Core Technical Certificate through Ivy Tech.

- Students must take at least one course from each of the six Indiana College Core Competencies listed.
- A minimum of 15 credit hours must be earned through Ivy Tech.
- The maximum credit hours permitted for each competency is 12; thus, if a student earns 15 credit hours or more within a competency, only 12 of those credit hours will count towards the program.
- A total of 30 credit hours must be earned from the list of classes offered by Southridge High School.



<b>QUANTITATIVE REASONING</b>		<b>3 – 12 CREDITS</b>
Finite Mathematics	MATH 118 – Finite	3 credits – IU
PreCalculus	MATH 136 – College Algebra	3 credits – Ivy Tech
Trigonometry	MATH 137 – Trigonometry with Analytic Geometry	3 credits – Ivy Tech
Calculus	MATH 211 – Calculus I	4 credits – Ivy Tech
AP Statistics		depends on AP Test
<b>SOCIAL &amp; BEHAVIORAL WAYS OF KNOWING</b>		<b>3 – 12 CREDITS</b>
U.S. History – Semester 1 – Dual Credit	HIST 101 – Survey of American History I	3 credits – Ivy Tech
U.S. History – Semester 2 – Dual Credit	HIST 102 – Survey of American History II	3 credits – Ivy Tech
U.S. Government – Dual Credit	POLS 101 – Intro. to American Gov. and Politics	3 credits – IU
Psychology – Dual Credit	PSYC 101 – Introduction to Psychology	3 credits – Ivy Tech
AP World History		depends on AP Test
<b>HUMANISITIC AND ARTISTIC WAYS OF KNOWING</b>		<b>3 – 12 CREDITS</b>
Adv. English College Credit (CC)	ENG 206 – Introduction to Literature	3 credits – Ivy Tech
Adv. Fine Arts CC: Music History	HUMA 118 – Music Appreciation	3 credits – Ivy Tech
Spanish III – Semester 1	SPAN 101 – Level I	4 credits – Ivy Tech
Spanish III – Semester 2	SPAN 102 – Level II	4 credits – Ivy Tech
Spanish IV – Semester 1	SPAN 203 – Intermediate Spanish I	3 credits – USI
Spanish IV – Semester 2	SPAN 204 – Intermediate Spanish II	3 credits – USI
<b>SOCIAL &amp; BEHAVIORAL WAYS OF KNOWING</b>		<b>3 – 12 CREDITS</b>
Biology II	BIOL 101 – Introductory Biology	3 credits – Ivy Tech
AP Biology		3 credits – AP Exam
Chemistry – Dual Credit		3 credits – IU
AP Physics		depends on AP Test
Anatomy & Physiology	BIOL 100 – Human Biology	3 credits – USI
<b>WRITTEN COMMUNICATION</b>		<b>3 – 12 CREDITS</b>
Advanced Composition	ENG 101 – English Composition	3 credits – USI
<b>SPEAKING AND LISTENING</b>		<b>3 – 12 CREDITS</b>
Advanced Speech	CMST 101 – Fundamentals of Public Speaking	3 credits – USI



# COURSES

## AGRICULTURE

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5008	Animal Science	20
5056	Intro to Agriculture, Food, & Natural Resources	20
5070	Advanced Life Science: Animals	21
5070	Advanced Life Science: Plants and Soils	21
5072	Advanced Life Science: Foods	22
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4522	Advanced Accounting	23
4524	Accounting Fundamentals	23
4540	Personal Financial Responsibility	23
4562	Principles of Business Management	24
4801	AP Computer Science Principles	24
5394	Preparing for College and Careers	24
5550	Graphic Design and Layout	24
5914	Marketing Fundamentals	25
7153	Principles of Business Operations & Tech	25
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1084	Digital Media	28
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1124	Advanced English for College Credit	28

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4006	Advanced 3D Art	29
4060	Advanced Drawing	30
4060	Beginning Concert Band	30
4168	Intermediate Concert Band	30
4182	Beginning Chorus – Girls Ensemble	31
4186	Intermediate Chorus – Mixed Choir	31
4188	Advanced Chorus	31
4260	Advanced Fine Arts CC: Music History	31
4834	Design Fundamentals	32

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2522	Algebra II Honors	34
2527	Calculus	34
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2565	PreCalculus	36
2566	Trigonometry	36
2570	AP Statistics	36





# COURSES

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3010	Environmental Science	37
3012	AP Environmental Science	37
3020	AP Biology	37
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3044	Earth and Space Science	38
3064	Chemistry	38
3066	Chemistry II	38
3080	AP Physics I – Algebra-Based	39
3108	Integrated Chemistry and Physics	39
5217	PLTW: Medical Interventions	39
5218	PLTW: Principles of Biomedical Sciences	40
5274	Medical Terminology	40
5276	Anatomy and Physiology	40

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1514	Economics	41
1514	Economics (Dual Credit)	41
1516	Ethnic Studies	41
1532	Psychology	41
1540	United States Government	42
1540	United States Government (Dual Credit)	42
1542	U.S. History	42
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1534	Sociology	43
1548	World History and Civilization	43
1570	Geography and History of the World	43
1612	AP World History Modern	43

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0520	Peer Tutoring	48
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4802	PLTW: Introduction to Engineering Design	49
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5644	PLTW: Principles of Engineering	50
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5698	Engineering Design and Development	50
4798	Intro to Transportation	50
5510	Automotive I	51
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5580	Construction Trades I	56
5578	Construction Trades II	56
0000	Fire Science	56
5528	Aviation 1	57
5524	Aviation 2: Flight	57
0000	Business Management and Administration	57
5776	Welding I	58
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5822	Criminal Justice	60
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9	10	11	12
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1/1	CREDIT/SEMESTER
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2	CREDITS MAX
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3	DUAL CREDITS
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QUANTITATIVE



### 5002 AGRIBUSINESS MANAGEMENT

The Agribusiness Management course introduces students to business management in agriculture. Mathematics, reading, and writing components are woven in the context of agriculture, and students will use the introductory skills and knowledge developed in this course throughout subsequent courses. Throughout the course are practical and engaging activities, projects, and problems to develop and improve business and employability skills. Additionally, students investigate and develop viable business plans in order to solve local problems. The business plan ideas are communicated to student peers and members of the professional community.

The course includes:

- Starting a Business
- Financial Documents
- Risk Management
- Writing a Business Plan

**Vincennes University:** AGBS 101 – Introduction to Agribusiness Management

9	10	11	12
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2/2	CREDIT/SEMESTER
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3	DUAL CREDITS
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### 5008 ANIMAL SCIENCE

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

- Counts as a directed elective or elective for all diplomas
- Fulfills a science course requirement for all diplomas
- Fulfills a physical science requirement for General Diploma

**Ivy Tech:** AGRI 103 – Animal Science

9	10	11	12
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1/1	CREDIT/SEMESTER
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2	CREDITS MAX
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3	DUAL CREDITS
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### 5056 INTRO. TO AGRICULTURE, FOOD, & NATURAL RESOURCES

The Introduction to Agriculture, Food, and Natural Resources course introduces students to agricultural opportunities and the pathways of study in agriculture. Students participating in this course experience hands-on activities, projects, and problems. Student experiences involve the study of communication, the science of agriculture, plants, animals, natural resources, and agricultural mechanics. While surveying the opportunities available in agriculture and natural resources, students learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions, and learning. For example, students work in groups to determine the efficiency and environmental impacts of fuel sources in a practical learning exercise.

The course includes:

- Agricultural Education
  - Agriculture, FFA, and SAE
- Communication Methods
- Science Processes
- Natural Resources

**Ivy Tech:** AGRI 100 – Intro to Ag





9	10	11	12
1/1	CREDIT/SEMESTER		
2	CREDITS MAX		
3	DUAL CREDITS		



QUANTITATIVE



### 5070 ADVANCED LIFE SCIENCE: ANIMALS

The primary goal of this course is to expose students to agriculture, animal science, and related career options. Throughout the course, students investigate the consumer perceptions and preferences related to animals in local, regional, and global markets. Students gain knowledge and skills related to animal anatomy, physiology, behavior, nutrition, reproduction, health, selection, and marketing through hands-on activities, projects, and problems. By mimicking work similar to that of animal science specialists such as industry personnel, livestock producers, veterinarians, and zoologists, students learn to document work, solve problems, and communicate solutions to peers and members of the professional community. Additionally, students encounter connections between animal science lessons and Supervised Agricultural Experience and FFA opportunities for experiential learning and leadership development.

The course includes:

- Background and Social Issues of Animal Science
- Handling and Caring for Animals Safely
- Anatomy and Physiology
- Nutrition, Reproduction, and Genetics
- Animal Health, Selection, Products, and Marketing

**Ivy Tech:** AGRI 107 – Advanced Animal Science

9	10	11	12
1/1	CREDIT/SEMESTER		
2	CREDITS MAX		
3	DUAL CREDITS		



QUANTITATIVE



### 5070 ADVANCED LIFE SCIENCE: PLANTS AND SOILS

The Advanced Life Science: Plants course provides a foundation of plant science knowledge and skills. Students will experience various plant science concepts through exciting hands-on activities, projects, and problems. Student experiences will include the study of plant anatomy and physiology, classification, and the fundamentals of production and harvesting. Students will learn how to apply scientific knowledge and skills to use plants effectively for agronomic, forestry, and horticultural industries. Students will work on major projects and problems similar to those that plant science specialists such as horticulturalists, agronomists, greenhouse and nursery managers, and plant research specialists face in their respective careers.

The course includes the following units of study:

- Worlds of Opportunity
- Mineral Soils
- Soilless Systems
- Anatomy and Physiology
- Taxonomy
- The Growing Environment
- Plant Reproduction
- Surviving a Harsh Environment
- Crop Production and Marketing

**Ivy Tech:** AGRI 109 – Advanced Plant Science



9	10	11	12
1/1	CREDIT/SEMESTER		
2	CREDITS MAX		
3	DUAL CREDITS		



QUANTITATIVE



### 5072 ADVANCED LIFE SCIENCE: FOODS

In the Advanced Life Science: Foods course, students will complete hands-on activities, projects, and problems that simulate actual concepts and situations found in the food science and safety industry, allowing students to build content knowledge and technical skills. Students will investigate areas of food science including food safety, food chemistry, food processing, food product development, and marketing. Students will maintain a research level Laboratory Notebook throughout the course documenting their experiences in the laboratory. Research and experimental design will be highlighted as students develop and conduct industry appropriate investigations. Students will investigate, experiment, and learn about documenting a project, solving problems, and communicating solutions to their peers and members of the professional community.

The course includes:

- Introduction to Food Science
- Chemistry of Food & Safety of our Food
- Food Processing Preservation and Packaging
- Food Health and Security
- Preference and Product Availability
- Food Product Development

**Ivy Tech:** AGRI 108 – Advanced Food Science

9	10	11	12
1/1	CREDIT/SEMESTER		
2	CREDITS MAX		
3	DUAL CREDITS		



### 5088 AGRICULTURE POWER, STRUCTURE, AND TECHNOLOGY

Agricultural Power, Structure and Technology exposes students to mechanics, power, technology, and career options in the world of agriculture. Students participating in this course will experience mechanical and engineering concepts with exciting hands-on activities with two to three labs per week. Students will acquire the basic skills to operate, repair, engineer, and design agricultural tools and equipment.

The course includes:

- Shop Safety
- Tool Operation
- Material Selection and Uses
- Fabrication
- Energy and Power Production
- Machine Components and Design
- Agricultural Structures
- Engineering Design Process

**Ivy Tech:** AGRI 106 – Agriculture Mechanization



9	10	11	12
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### 4512 BUSINESS MATH

2/2	CREDITS/SEMESTERS
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SHS Course Prerequisite: Algebra



QUANTITATIVE

Business Math is a business 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.

9	10	11	12
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### 4522 ADVANCED ACCOUNTING

2/2	CREDITS/SEMESTERS
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SHS Course Prerequisite: Accounting Fundamentals

3	DUAL CREDITS
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QUANTITATIVE



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

**Ivy Tech:** ACCT 101 – Accounting

9	10	11	12
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### 4524 ACCOUNTING FUNDAMENTALS

2/2	CREDITS/SEMESTERS
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Accounting Fundamentals introduces the language of business using Generally Accepted Accounting Principles (GAAP) and procedures for proprietorships and partnerships using double-entry accounting. Emphasis is placed on accounting principles as they relate to both manual and automated financial systems. This course involves understanding, analyzing, and recording business transactions and preparing, analyzing, and interpreting financial reports as a basis for decision-making.

2	CREDITS MAX
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9	10	11	12
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### 4540 PERSONAL FINANCIAL RESPONSIBILITY

1/1	CREDIT/SEMESTER
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REQUIRED

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



9	10	11	12
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2/2	CREDITS/SEMESTERS
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### 4562 PRINCIPLES OF BUSINESS MANAGEMENT

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

9	10	11	12
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2/2	CREDITS/SEMESTERS
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**WEIGHTED**



**QUANTITATIVE**

### 4801 AP COMPUTER SCIENCE PRINCIPLES

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

- Counts as a science credit

8	9	10	11	12
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1/1	CREDIT/SEMESTER
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**REQUIRED**

### 5394 PREPARING FOR COLLEGE AND CAREERS

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

9	10	11	12
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2/2	CREDITS/SEMESTERS
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6	CREDITS MAX
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### 5550 GRAPHIC DESIGN AND LAYOUT

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.



9	10	11	12
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### 5914 MARKETING FUNDAMENTALS

2/2	CREDITS/SEMESTERS
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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.

9	10	11	12
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### 7153 PRINCIPLES OF BUSINESS OPERATIONS AND TECHNOLOGY

2/2	CREDITS/SEMESTERS
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The Principles of Business Operations and Technology course will prepare students to plan, organize, direct, and control the functions and processes of a firm or organization and be successful in a work environment. Students are provided opportunities to develop attitudes and apply skills and knowledge in the areas of business, management, Microsoft office, and finance. Individual experiences will be based upon the student's career and educational goals.

9	10	11	12
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### 7154 PRINCIPLES OF ENTREPRENEURSHIP

2/2	CREDITS/SEMESTERS
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Principles of Entrepreneurship focuses on students learning about their own strengths, character and skills and how their unique abilities can apply to entrepreneurship, as well as how an entrepreneurial mindset can serve them regardless of their career path. Students will learn about the local, regional and state resources and will begin to understand and apply the entrepreneurial process. The course helps students to identify and evaluate business ideas while learning the steps and competencies required to launch a successful new venture. The course helps students apply what they have learned from the content when they write a Personal Vision Statement, a Business Concept Statement, and an Elevator Pitch.



9	10	11	12
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2/2	CREDITS/SEMESTERS
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**REQUIRED**

### 1002 ENGLISH 9

This course will be a continuation in the study of grammar as well as an introduction to literature. The emphasis will be on the study of phrases, clauses, usage, punctuation, and the application of these concepts through writing. Also the course focuses on the short story, drama, poetry, and vocabulary development.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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**WEIGHTED**

### 1002 ENGLISH 9 HONORS

This course will be a continuation in the study of grammar as well as an introduction to literature. The emphasis will be on the study of phrases, clauses, usage, punctuation, and the application of these concepts through writing. Also the course focuses on the short story, drama, poetry, and vocabulary development.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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**REQUIRED**

### 1004 ENGLISH 10

SHS Course Prerequisite: English 9 or recommendation

This class consists of writing, beginning with process and ending with long compositions and a research paper, a survey of literature including all literary genre, and vocabulary study.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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**WEIGHTED**

### 1004 ENGLISH 10 HONORS

SHS Course Prerequisite: English 9 or recommendation

This class consists of writing, beginning with process and ending with long compositions and a research paper, a survey of literature including all literary genre, and vocabulary study.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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**REQUIRED**

### 1008 ENGLISH 12

SHS Course Prerequisite: English 9, 10, 11, or recommendation

This course is a practical approach to the study of English for students who plan to enter the work force immediately after graduation or attend a technical program of study. Many activities will utilize cooperative learning techniques, possible novel studies, project-based learning activities, vocabulary study, and concentration on essay responses.





# ENGLISH

## DEPARTMENT

9	10	11	12
2/2	CREDITS/SEMESTERS		
4	CREDITS MAX		

### 1012 ENGLISH AS A NEW LANGUAGE (freshman)

This course provides non-English speaking students with instruction in English that should help improve their proficiency in listening, speaking, reading, and writing in English. Emphasis is placed on helping students to function within the regular school setting and within and English speaking society.

**Special Note:** This course is not a part of standard foreign language sequence. A maximum of four credits may be earned through this course in the language arts area.

9	10	11	12
2/2	CREDITS/SEMESTERS		
4	CREDITS MAX		

### 1012 ENGLISH AS A NEW LANGUAGE (sophomore)

This course provides non-English speaking students with instruction in English that should help improve their proficiency in listening, speaking, reading, and writing in English. Emphasis is placed on helping students to function within the regular school setting and within and English speaking society.

**Special Note:** This course is not a part of standard foreign language sequence. A maximum of four credits may be earned through this course in the language arts area.

9	10	11	12
2/2	CREDIT/SEMESTER		

### 1020 AMERICAN LITERATURE

SHS Course Prerequisite: English 9, 10, or recommendation

This course is an overview of the basic schools of American Literature from Pre-Columbian through modern times. Specific activities include possible novel studies, vocabulary study, project-based learning activities, and concentration on essay responses.

9	10	11	12
1/1	CREDIT/SEMESTER		

### 1030 ENGLISH LITERATURE

SHS Course Prerequisite: English 9, 10, 11, or recommendation

This course presents the beginnings of literature in the English language and follows a timeline presenting significant historical and literary events during the literary history of the British Isles. This class is for four-year, college-bound students.

9	10	11	12
1/1	CREDIT/SEMESTER		
3	DUAL CREDITS		

### 1076 ADVANCED SPEECH

SHS Course Prerequisite: English 9, 10, or recommendation

This course is the study of the process and product of interpersonal communications. Specific activities include: giving four presentations, outlining, finding valid research, and vocabulary study.

**University of Southern Indiana:** CMST 101 – Introduction to Speech



WEIGHTED



INDIANA COLLEGE CORE





9	10	11	12
1/1	CREDITS/SEMESTERS		
2	CREDITS MAX		

### 1084 DIGITAL MEDIA

Digital Media, a course based on the Indiana Academic Standards for English/Language Arts and Media Literacy Standards, is a study of media literacy and production skills. This course examines the impact of informational, narrative, and persuasive media on everyday life. This course will focus on changes in media and includes practice in broadcast journalism, audio/visual storytelling, multimedia storytelling, as well as different platforms such as online and social media. Students will analyze local, national, and global media through the lens of law, ethics, and social responsibility. Students use course content to become knowledgeable consumers and producers of media. For the second credit: Students continue to develop media production skills in addition to continuing critical media analysis. By the end of the semester, students write and produce media projects.

- Credits can be counted towards English Credits

9	10	11	12
1/1	CREDIT/SEMESTER		
3	DUAL CREDITS		

### 1098 ADVANCED COMPOSITION

SHS Course Prerequisite: English 9, 10, 11, or recommendation

Advanced Composition, a course based on the Indiana Academic Standards for English/Language Arts, is a study and application of the rhetorical writing strategies of exposition and persuasion. Students write expository critiques of nonfiction selections, literary criticism of fiction selections, persuasive compositions, and research reports in addition to other appropriate writing tasks. Course can be offered in conjunction with a literature course, or schools may embed Indiana Academic Standards for English/Language Arts reading standards within curriculum.

**University of Southern Indiana:** ENG 101 – Rhetoric and Composition I: Literacy and the Self



**WEIGHTED**



**INDIANA COLLEGE CORE**



9	10	11	12
1/1	CREDIT/SEMESTER		
3	DUAL CREDITS		

### 1124 ADVANCED ENGLISH FOR COLLEGE CREDIT

SHS Course Prerequisite: Advanced Composition for dual credit

This class is an advanced course based on the Indiana Academic standards for English/Language Arts in grades 11 and 12. This course title covers any English language and composition advanced course offered by an accredited post-secondary institution through an adjunct agreement with a secondary school. Specifically, this class provides development of basic strategies for critically reading and interpreting poetry, fiction, and drama; introduction to the premises and motives of literary analysis and critical methods associated with various literary concerns through class discussion and focused writing assignments.

**Ivy Tech:** ENGL 206 – Introduction to Literature



**WEIGHTED**



**INDIANA COLLEGE CORE**





# FINE ARTS

## DEPARTMENT

9	10	11	12
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1/1	CREDIT/SEMESTER
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### 4000 INTRODUCTION TO 2D ART

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.

9	10	11	12
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1/1	CREDIT/SEMESTER
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### 4002 INTRODUCTION TO 3D ART

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.

9	10	11	12
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1/1	CREDIT/SEMESTER
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### 4004 ADVANCED 2D ART

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.

9	10	11	12
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1/1	CREDIT/SEMESTER
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### 4006 ADVANCED 3D ART

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.



# FINE ARTS

## DEPARTMENT

9	10	11	12
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1/1	CREDIT/SEMESTER
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3	DUAL CREDITS
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### 4060 ADVANCED DRAWING

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.

**Ivy Tech:** VISC 111 – Drawing for Visualization

9	10	11	12
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2/2	CREDITS/SEMESTERS
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### 4060 BEGINNING CONCERT BAND

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. Music styles studied will include but are not limited to the following: concert band, marching band, pep band, solo and ensemble. Marching band requires extra effort for rehearsals and performances. Attendance at rehearsals, concerts, and performances ARE MANDATORY requirements. Students must take band the entire school year unless a severe hardship is presented whereby the band director and principal must both agree that the course can be dropped.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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### 4168 INTERMEDIATE CONCERT BAND

SHS Course Prerequisite: Beginning Concert Band

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. Music styles studied will include but are not limited to the following: concert band, marching band, pep band, solo and ensemble.



# FINE ARTS

## DEPARTMENT

9	10	11	12
2/2	CREDITS/SEMESTERS		

### 4182 BEGINNING CHORUS – GIRLS ENSEMBLE

The girl's ensemble consists of only Treble voices. All other rules are the same as for mixed choir.

9	10	11	12
2/2	CREDITS/SEMESTERS		

### 4186 INTERMEDIATE CHORUS – MIXED CHOIR

SHS Course Prerequisite: Audition

This course 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. 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.

9	10	11	12
2/2	CREDITS/SEMESTERS		

### 4188 ADVANCED CHORUS

SHS Course Prerequisite: Beginning and Intermediate Chorus

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

9	10	11	12
2/2	CREDITS/SEMESTERS		
3	DUAL CREDITS		

### 4260 ADVANCED FINE ARTS CC: MUSIC HISTORY

This course introduces students to music with an emphasis on critical listening. Surveys a variety of genres, composers, and their composition. Students will be able to demonstrate an increased proficiency in music vocabulary, identify the major periods in music history, recognize certain genres by listening to musical examples and identify their origins, distinguish between composers' styles, and demonstrate an appreciation of various musical styles including those previously unfamiliar to the student.



**Ivy Tech:** HUMA 118 – Music Appreciation



# FINE ARTS

## DEPARTMENT

9	10	11	12
1/1	CREDIT/SEMESTER		
3	DUAL CREDITS		



### 4834 DESIGN FUNDAMENTALS

Design Fundamentals introduces students to fundamental design theory. Investigations into design theory and color dynamics will provide experiences in applying design theory, ideas and creative problem solving in the area of communication technology. Student learning experiences encompass art history, art criticism, aesthetics, and production, which lead to the creation of portfolio-quality works. 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 in areas of communication; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills.

**Ivy Tech:** VISC 101 – Design Fundamentals



9	10	11	12
1/1	CREDIT/SEMESTER		
2	CREDITS MAX		

### 3542 PHYSICAL EDUCATION 1

These courses continue with an emphasis on health-related fitness and developing the skills and habits necessary for a lifetime of activity. This program includes skill development and the application of rules and strategies of complex difficulty in at least three of the following movement forms: (1) health-related fitness activities (cardio respiratory endurance, muscular strength and endurance, flexibility, and body composition) (2) aerobic exercise (3) team sports (4) individual and dual sports (5) gymnastics (6) outdoor pursuit, (7) self-defense (8) aquatics (9) dance and (10) recreational games.

9	10	11	12
1/1	CREDIT/SEMESTER		
2	CREDITS MAX		

### 3544 PHYSICAL EDUCATION 2

These courses continue with an emphasis on health-related fitness and developing the skills and habits necessary for a lifetime of activity. This program includes skill development and the application of rules and strategies of complex difficulty in at least three of the following movement forms: (1) health-related fitness activities (cardio respiratory endurance, muscular strength and endurance, flexibility, and body composition) (2) aerobic exercise (3) team sports (4) individual and dual sports (5) gymnastics (6) outdoor pursuit, (7) self-defense (8) aquatics (9) dance and (10) recreational games.

9	10	11	12
2/2	CREDITS/SEMESTERS		
6	CREDITS MAX		

### 3560 ELECTIVE PE / STRENGTH AND CONDITIONING OR SPORTS OFFICIATING

SHS Course Prerequisite: Physical Education 1 and 2

This course will be designed to condition and strengthen students. There will be no activities involving games. This class will be coordinated with each sport so that each student athlete will receive maximum benefit from this class. Students will participate in weight training, running/agility training, plyometrics, stretching, skeletal and muscular testing. Students must be a member of an athletic team or have permission from strength coach. All students must complete a strength application and return it to the strength coach.





9	10	11	12
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2/2	CREDITS/SEMESTERS
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**REQUIRED**



**QUANTITATIVE**

### 2520 ALGEBRA I/E

Algebra I will provide a formal development of algebraic skills and concepts. This course is comprised of six critical areas: 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. The critical areas deepen and extend understanding of concepts learned in middle school. Skills are assessed through formal and informal assessments as well as enrichment activities and projects. Algebra I E courses will have additional support to maximize student learning.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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**REQUIRED**



**QUANTITATIVE**

### 2522 ALGEBRA II/E

This course 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. Skills are assessed through formal and informal assessments as well as enrichment activities and projects.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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**QUANTITATIVE**



**WEIGHTED**

### 2522 ALGEBRA II HONORS

SHS Course Prerequisite: Algebra I

This course provides students with the skills and understandings that are necessary for advanced manipulation of linear, quadratic, exponential, 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. Students will also be introduced to concepts taught in precalculus and trigonometry. Skills are assessed through formal and informal assessments as well as enrichment activities and projects.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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4	DUAL CREDITS
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**WEIGHTED**



**QUANTITATIVE**



**INDIANA COLLEGE CORE**



### 2527 CALCULUS

SHS Course Prerequisite: Precalculus/Trigonometry

Calculus is designed to be the equivalent of a first semester college calculus course devoted to topics in differential and integral calculus. The course is comprised of three big ideas: Change, Limits, and Analysis of Functions. These abstract concepts and themes will be revisited throughout the year, which will provide students the opportunity to apply them in a variety of contexts to develop a deeper conceptual understanding. Additionally, the coursework and instruction will prepare students for advanced coursework in mathematics or other fields engaged in modeling change (i.e. pure sciences, engineering, or economics) and for creating useful, reasonable solutions to problems encountered in an ever-changing world. A graphing calculator is required for the course.

**Ivy Tech:** MATH 211 – Calculus I





# MATHEMATICS

## DEPARTMENT

9	10	11	12
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2/2	CREDITS/SEMESTERS
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3	DUAL CREDITS
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**WEIGHTED**



**QUANTITATIVE**



**INDIANA COLLEGE CORE**



### 2530 FINITE MATHEMATICS

SHS Course Prerequisite: Precalculus/Trigonometry

Finite Mathematics is a collection of topics that are anything but calculus; therefore, it is a course designed for students who will undertake higher-level mathematics in college that may not include calculus (or even precalculus). The purpose of the course is to give a survey of mathematical analysis techniques used in the working world as well as provide valuable experience at organizing information and then analyzing it. Finite Mathematics is made up of five main concepts: Sets, Matrices, Networks, Optimization, and Probability. Skills are assessed through formal and informal assessments as well as enrichment activities and projects.

**Indiana University:** MATH 118 – Finite Mathematics

9	10	11	12
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2/2	CREDITS/SEMESTERS
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**REQUIRED**



**QUANTITATIVE**

### 2532 GEOMETRY

SHS Course Prerequisite: Algebra I

Geometry reinforces 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. Skills are assessed through formal and informal assessments as well as enrichment activities and projects.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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	AP EXAM
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**WEIGHTED**



**QUANTITATIVE**

### 2562 AP CALCULUS AB

SHS Course Prerequisite: Precalculus/Trigonometry

AP Calculus AB is designed to be the equivalent of a first semester college calculus course devoted to topics in differential and integral calculus. The course is comprised of three big ideas: Change, Limits, and Analysis of Functions. These abstract concepts and themes will be revisited throughout the year, which will provide students the opportunity to apply them in a variety of contexts to develop a deeper conceptual understanding. Additionally, the coursework and instruction will prepare students for advanced coursework in mathematics or other fields engaged in modeling change (i.e. pure sciences, engineering, or economics) and for creating useful, reasonable solutions to problems encountered in an ever-changing world. A graphing calculator is required for the course, and all students enrolled will be expected to participate in the AP exam at the end of the year.



# MATHEMATICS

## DEPARTMENT

9	10	11	12
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1/1	CREDIT/SEMESTER
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3	DUAL CREDITS
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WEIGHTED



QUANTITATIVE



INDIANA COLLEGE CORE



### 2565 PRECALCULUS

SHS Course Prerequisite: Algebra II and Geometry

This course is designed for students who have successfully completed algebra II and geometry and who expect math to be a major component of their future college and career experiences. It will provide an in-depth study of all topics essential to the study of AP Calculus as well as prepare all students for the SAT and ACT. Students will be actively engaged in problem solving, reasoning, connecting, and communicating mathematically as they explore families of functions. Special emphasis will be on Quadratic, Polynomial, Rational, Exponential, and Logarithmic Functions. To enhance the understanding of these topics, data analysis and mathematical modeling of real world situations will be an integral part of this course; therefore, each student must have access to a graphing calculator. Skills are assessed through formal and informal assessments as well as enrichment activities and projects.

**Ivy Tech:** MATH 136 – College Algebra

9	10	11	12
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1/1	CREDIT/SEMESTER
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3	DUAL CREDITS
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WEIGHTED



QUANTITATIVE



INDIANA COLLEGE CORE



### 2566 TRIGONOMETRY

SHS Course Prerequisite: Algebra II and Geometry

This course is designed for students who have successfully completed algebra II and geometry and who expect math to be a major component of their future college and career experiences. It will provide an in-depth study of all topics essential to the study of AP Calculus as well as prepare all students for the SAT and ACT. Trigonometry provides students with the skills that are necessary for advanced manipulation of angles and measurement as well as the foundational knowledge for common periodic functions that are encountered in many disciplines, including music, engineering, medicine, and finance (and nearly all other STEM disciplines).

Trigonometry consists of seven main concepts: Conics, the Unit Circle, Geometry, Periodic Functions; Trigonometric Identities, Polar Coordinates, and Vectors. To enhance the understanding of these topics, data analysis and mathematical modeling of real world situations will be an integral part of this course; therefore, each student must have access to a graphing calculator. Skills are assessed through formal and informal assessments as well as enrichment activities and projects.

**Ivy Tech:** MATH 137 – Trigonometry

9	10	11	12
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1/1	CREDIT/SEMESTER
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	AP EXAM
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WEIGHTED



QUANTITATIVE

### 2570 AP STATISTICS

SHS Course Prerequisite: Algebra I and Algebra II (A or B grade)

The purpose of AP Statistics is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students will be exposed to four broad conceptual themes: Exploring Data, Sampling and experimentation, Anticipating Patterns, and Statistical Inference. The course is designed to be equivalent to a one semester introductory college statistics course. Coursework and instruction will include the use of technology, projects and laboratories, cooperative group problem-solving, and writing – all of which will allow students to build interdisciplinary connections with other subjects and with their world outside school. A graphing calculator is required for the course, and all students enrolled will be expected to participate in the AP exam at the end of the year.



9	10	11	12
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2/2	CREDITS/SEMESTERS
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### 3010 ENVIRONMENTAL SCIENCE

Environmental Science is an interdisciplinary course that integrates biology, earth science, chemistry, and other disciplines. Students enrolled in this course integrate Science and Engineering Practices and Crosscutting Concepts to conduct in-depth scientific studies of environmental systems, flow of matter and energy, natural disasters, environmental policies, biodiversity, population, pollution, and natural and anthropogenic resource cycles. Students formulate, design, and carry out laboratory and field investigations as an essential course component. Students completing Environmental Science acquire the essential tools for understanding the complexities of national and global environmental systems.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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AP EXAM	
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### 3012 AP ENVIRONMENTAL SCIENCE

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



9	10	11	12
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2/2	CREDITS/SEMESTERS
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AP EXAM	
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### 3020 AP BIOLOGY

SHS Course Prerequisite: Biology I and Chemistry I

AP Biology is designed to offer students a solid foundation in introductory college-level Biology. By structuring the course around the four Big Ideas, Enduring Understandings and Science Practices, the students will be assisted in developing an appreciation for the study of life and helped to identify and understand unifying principles within a diversified biological world. Science is a way of knowing. Therefore, knowing about Biology requires that students learn the process of inquiry and develop critical thinking skills. The course will focus not only on knowing science content, but also learning skills to analyze and interpret data, and to communicate information in a meaningful way to others. At the end of the course, students will have an awareness of the integration of other sciences into the study of Biology, understand how our own species is similar, yet different from other species, and become knowledgeable and responsible citizens in understanding biological issues that could potentially impact their lives. Students will have use of computer labs and tools, such as Google Classroom, for instructional use, accessing assignments and other web based information.



9	10	11	12
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2/2	CREDITS/SEMESTERS
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### 3024 BIOLOGY I

This course covers 4 primary areas of study; cells and cell division, genetics, evolution, and ecology (Chapters 1-18) Students who demonstrate academic strength should take Bio I as a freshman. Those who do not should have Bio I for sophomore year. Along with lecture, students will enjoy labs and hands on activities like; making DNA necklaces, leaf collections, microscope labs, “Build a Beast” and many more.



9	10	11	12
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2/2	CREDITS/SEMESTERS
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3	DUAL CREDITS
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**WEIGHTED**



**INDIANA COLLEGE CORE**



### 3026 BIOLOGY II, ADVANCED

SHS Course Prerequisite: Biology I

This course continues from Bio I, covering the remainder of the topics in the textbook. (Chapters 19-35) Bio II also covers 4 primary areas of study; plants and fungi, microbes (bacteria, viruses, and protists), Invertebrate Animals and Vertebrate Animals. If you love animals – we cover them all! Collect leaves, fruits and nuts as well as collect common mushrooms. Learn about the many tiny microbes that live in and on YOU, and even the ones that can make you sick. Make an insect collection, dissect squid, worms, crayfish, fish, and even a fetal pig. \*Make sure you are motivated. Quizzes and tests are challenging.

**Ivy Tech:** BIOL 101 – Introductory Biology

9	10	11	12
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2/2	CREDITS/SEMESTERS
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### 3044 EARTH AND SPACE SCIENCE

Earth and Space Science I is a course focused on the following core topics: universe; solar system; Earth cycles and systems; atmosphere and hydrosphere; solid Earth; 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.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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### 3064 CHEMISTRY

SHS Course Prerequisite: Algebra II

This course is designed around understanding; the history of the atom, the structure of the periodic table and how to apply periodic law, the structure of atoms and the types of compounds that can be formed from them, stoichiometry, states of matter, and basic organic chemistry. Chemistry is meant to make you think and build your problem solving skills. It will also test your basic math skills. The class uses lecture as the main instructional strategy along with labs to help better your understanding of certain concepts.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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3	DUAL CREDITS
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**WEIGHTED**



**QUANTITATIVE**



**INDIANA COLLEGE CORE**



### 3066 CHEMISTRY II

SHS Course Prerequisite: Chemistry, PreCalculus/Trigonometry

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.

**Indiana University:**



9	10	11	12
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2/2	CREDITS/SEMESTERS
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AP EXAM
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**WEIGHTED**

### 3080 AP PHYSICS I – ALGEBRA-BASED

SHS Course Prerequisite: Precalculus/Trigonometry

AP Physics is designed to be a challenging course. It will test your abilities to process in-depth problems and your math abilities to solve them. Physics is a comprehensive look at: mechanics, dynamics, momentum, energy and energy transfer, electricity, and waves. This is done through a structure that requires 25% lab time and 75% instructional time. Instruction is focused 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.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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**QUANTITATIVE**

### 3084 PHYSICS

Physics I incorporates high school Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts to help students gain a three dimensional understanding of Physics topics. Disciplinary Core Ideas for this course include Forces and Interactions, Energy, Wave Properties, and Electromagnetic Radiation. Instruction focuses on the observation of phenomena to develop an understanding of how scientific knowledge is acquired.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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### 3108 INTEGRATED CHEMISTRY AND PHYSICS

This course is focused on the following core topics; motion and energy of macroscopic objects, chemical, electrical, mechanical and nuclear energy, properties of matter, transport of energy, magnetism, energy production and its relationship to the environment and economy. The CPO lab based format allows students to experience each core topic through at least 2 labs in each chapter.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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**EMPLOYABILITY SKILLS**

### 5217 PLTW: MEDICAL INTERVENTIONS

SHS Course Prerequisite: PLTW: Human Body Systems

Medical Interventions is a course that studies medical practices including interventions to support humans in treating disease and maintaining health. Using a project-based learning approach, students will investigate various medical interventions that extend and improve quality of life, including gene therapy, pharmacology, surgery, prosthetics, rehabilitation, and supportive care. Students will also study the design and development of various interventions. Lessons will cover the history of organ transplants and gene therapy with additional readings from current scientific literature addressing cutting edge developments.



9	10	11	12
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2/2	CREDITS/SEMESTERS
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**EMPLOYABILITY SKILLS**

### 5218 PLTW: PRINCIPLES OF BIOMEDICAL SCIENCES

SHS Course Prerequisite: Biology I or concurrent with Biology I

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

9	10	11	12
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2/2	CREDITS/SEMESTERS
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**ONLINE ONLY**

### 5274 MEDICAL TERMINOLOGY

Medical Terminology prepares students with language skills necessary for effective, independent use of health and medical reference materials. It includes the study of health and medical abbreviations, symbols, and Greek and Latin word part meanings, all taught within the context of body systems. This course builds skills in pronouncing, spelling, and defining new words encountered in verbal and written information in the healthcare industry. Students have the opportunity to acquire essential skills for accurate and logical communication, and interpretation of medical records. Emphasis is on forming a foundation of a medical vocabulary including; appropriate and accurate meaning, spelling, and pronunciation of medical terms, and abbreviations, signs, and symbols.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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4	DUAL CREDITS
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**WEIGHTED**



**INDIANA COLLEGE CORE**



### 5276 ANATOMY AND PHYSIOLOGY

This course investigates each and every system in the human body, from the tiny cells and tissues that make up the body to the 208 bones that form your skeletal system. \*Be advised\*, in order to cover 11 systems, child development, and cat dissection, this course moves very fast. Credit may also be earned through the University of Southern Indiana so please understand this is a college course. If you are interested in a future in the medical field, you should take this course.

**University of Southern Indiana:** BIOL 105 – Biology of Human Concern



# SOCIAL STUDIES

## DEPARTMENT

9	10	11	12
1/1	CREDIT/SEMESTER		

### 1512 CURRENT PROBLEMS, ISSUES & EVENTS

A daily influence will be placed on current events and news stories that will give students a better understanding of the world in which we live.

9	10	11	12
1/1	CREDIT/SEMESTER		

### 1514 ECONOMICS

Economics will study the problem of scarcity and the choices consumers must look at in the decision making process. Economics will also look at decision making in the following areas: producer, saver, investor, employers, businesses, public policy, economic systems, and the stock market. This class is taken in conjunction with United States Government.



QUANTITATIVE

9	10	11	12
1/1	CREDIT/SEMESTER		

### 1514 ECONOMICS (DUAL CREDIT)

Economics will study the problem of scarcity and the choices consumers must look at in the decision making process. Economics will also look at decision making in the following areas: producer, saver, investor, employers, businesses, public policy, economic systems, and the stock market. This class is taken in conjunction with United States Government.

3	DUAL CREDITS		
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WEIGHTED



QUANTITATIVE



ONLINE ONLY



INDIANA COLLEGE CORE



9	10	11	12
1/1	CREDIT/SEMESTER		

### 1516 ETHNIC STUDIES

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.

9	10	11	12
1/1	CREDIT/SEMESTER		

### 1532 PSYCHOLOGY

Psychology will study individual behavior and cognition. The course will look at different methods of study that apply to the investigation of both normal and abnormal behavior. This course will also investigate mind and body relationships, perceptions, emotions, memory processes, learning, stress and mental disorders. Offered based on interest.

3	DUAL CREDITS		
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WEIGHTED



INDIANA COLLEGE CORE



**Ivy Tech:** PSYC 101 – Introduction to Psychology





# SOCIAL STUDIES

## DEPARTMENT

9	10	11	12
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1/1	CREDIT/SEMESTER
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**REQUIRED**

### 1540 UNITED STATES GOVERNMENT

United States Government provides a framework for understanding the nature and importance of responsible civic participation for learning the rights and responsibilities of individuals in a constitutional democracy. The course enables students to explore the historic origins and evolution of political philosophies into contemporary political and legal systems. Constitutional structure and the process of the legislative, executive, and judicial branches of the national, state, and local levels of government are examined. Students learn to draw conclusions about the impact and interrelationships of history, geography, and economics upon our system of government. They also learn to demonstrate an understanding of the government structures of the United States and other political systems, as well as the relationship of American Government to world affairs. This class is taken in conjunction with Economics.

9	10	11	12
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1/1	CREDIT/SEMESTER
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3	DUAL CREDITS
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**WEIGHTED**



**INDIANA COLLEGE CORE**



### 1540 UNITED STATES GOVERNMENT (DUAL CREDIT)

United States Government provides a framework for understanding the nature and importance of responsible civic participation for learning the rights and responsibilities of individuals in a constitutional democracy. The course enables students to explore the historic origins and evolution of political philosophies into contemporary political and legal systems. Constitutional structure and the process of the legislative, executive, and judicial branches of the national, state, and local levels of government are examined. Students learn to draw conclusions about the impact and interrelationships of history, geography, and economics upon our system of government. They also learn to demonstrate an understanding of the government structures of the United States and other political systems, as well as the relationship of American Government to world affairs. This class is taken in conjunction with Economics.

**Indiana University:** POLS 101 – Introduction to American Government and Politics

9	10	11	12
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2/2	CREDITS/SEMESTERS
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**REQUIRED**

### 1542 U.S. HISTORY

United States History will review, in chronological order, the major eras of our history to the post-Civil War times. Major emphasis will be put on post-Civil War America blending together the geographic, social and economic factors of our nation's history with the historical events. The student should be able to place major events in sequence and discuss cause and effect of events. The cultural diversity of our nation will be discussed. Current events will be integrated with the events of the past. The student's semester project will help to develop inquiry skills.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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6	DUAL CREDITS
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**WEIGHTED**



**INDIANA COLLEGE CORE**



### 1542 U.S. HISTORY (DUAL CREDIT)

United States History will review, in chronological order, the major eras of our history to the post-Civil War times. Major emphasis will be put on post-Civil War America blending together the geographic, social and economic factors of our nation's history with the historical events. The student should be able to place major events in sequence and discuss cause and effect of events. The cultural diversity of our nation will be discussed. Current events will be integrated with the events of the past. The student's semester project will help to develop inquiry skills.

**Indiana University:** HIST-H 105 – American History I  
HIST-H 106 – American History II



# SOCIAL STUDIES

## DEPARTMENT

9	10	11	12
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1/1	CREDIT/SEMESTER
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### 1534 SOCIOLOGY

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 describe the development of sociology as a social science and identify methods of research. Through research methods such as scientific inquiry students 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 also analyze the role of individuals in the community and social problems in today's world.

**Dual Credits:** Only available if taken online.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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### 1548 WORLD HISTORY AND CIVILIZATION

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 and content, skills and substance, in the teaching and learning of history.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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### 1570 GEOGRAPHY AND HISTORY OF THE WORLD

Geography and History of the World is a course in which students will geographically look at the world. Students will learn various geographic and historical skills and concepts of historical geography that will be used to explore certain global themes throughout the world since 1000 C.E. Some examples are: the origin and spread of world religions; world exploration; imperialism; urbanization; and innovations and revolutions. By using these skills, concepts and the processes associates with hem students are able to analyze, evaluate, and make predictions about major global developments.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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### 1612 AP WORLD HISTORY MODERN

AP World History Modern students investigate significant events, individuals, developments, and processes in historical periods from approximately 1200 CE to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; and utilizing reasoning about comparison, causation, and continuity and change over time. The course provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: humans and the environment, cultural developments and interactions, governance, economic systems, economic systems, social interactions and organization, and technology and innovation.



**WEIGHTED**



9	10	11	12
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### 2120 SPANISH I

2/2	CREDITS/SEMESTERS
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In this course, students begin their world language study through listening, speaking, reading and writing activities. The course is aligned to Indiana’s World Language Standards and the National Foreign Language Standards.

In the first semester, topics include greetings, the numbers, leisure activities, family, physical descriptions, school subjects & schedules, and time. In the second semester, the topics of study are likes & dislikes, clothing & shopping, sports, giving opinions, health, and leisure activities.

Throughout the course, students learn to express themselves using an ever-increasing vocabulary, present tense verbs, articles and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Culture is sprinkled throughout the course to help the learner understand the Spanish-speaking world and their culture, people, geographical locations and histories.

9	10	11	12
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### 2122 SPANISH II

2/2	CREDITS/SEMESTERS
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SHS Course Prerequisite: Spanish I

This course is a continuation of Spanish 1 and is designed to help improve skills in the Spanish language. Students will increase their skills through listening, speaking, reading and writing activities based on pedagogically proven methods of foreign language instruction.

In the first semester, topics include review of material previously learned in Spanish 1 as well as daily routines and food and meals. In the second semester, the topics of study are parties and holidays and at the doctor’s office.

Throughout the course, students will continue to learn to express themselves using an ever-increasing vocabulary, present, past, and increasingly complex grammatical structures. Grammar is an important component to second year as it is the basis for advanced speaking and writing in Spanish 3 and 4. It will be practiced in a variety of ways including in class, online, homework practice, and integrated reading. Culture is sprinkled throughout the course to help the learner understand the Spanish-speaking world and their culture, people, geographical locations and histories. This course is aligned to Indiana’s World Language Standards and the National Foreign Language Standards.



# WORLD LANGUAGE

## DEPARTMENT

9	10	11	12
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2/2	CREDITS/SEMESTERS
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6	DUAL CREDITS
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**WEIGHTED**



**INDIANA COLLEGE CORE**



### 2124 SPANISH III

SHS Course Prerequisite: Spanish II

This course is a continuation of the beginning level courses that will help the student continue learning the Spanish language. In the course, the student will practice and learn listening, speaking, reading and writing skills through activities that are based on pedagogically proven methods of foreign language instruction.

In the first semester, students will study nature and environment and in the city. In the second semester, the topics of study are daily life and health and well-being.

Students learn to express themselves using an ever-increasing vocabulary, the subjunctive mood, nosotros commands, the present and past perfect, the future perfect, and the conditional perfect tenses and increasingly complex grammatical structures. This year will have a greater focus on culture and reading selections of interesting and appropriately leveled material. Culture is addressed throughout the course to help the learner understand the Spanish-speaking world and their culture, people, geographical locations and histories. The course is aligned to Indiana's World Language Standards and the National Foreign Language Standards.

**Ivy Tech:** SPAN 101 – Level I (Semester 1)  
SPAN 102 – Level II (Semester 2)

9	10	11	12
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2/2	CREDITS/SEMESTERS
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6	DUAL CREDITS
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**WEIGHTED**



**INDIANA COLLEGE CORE**



### 2126 SPANISH IV

SHS Course Prerequisite: Spanish III

The fourth year of Spanish builds upon the first three levels. Students will continue to sharpen their listening, reading and writing skills as well as learn skills to think critically and express themselves on topics relevant to Hispanic culture. Spanish 4 will include authentic texts for current events, culture and literature. Students will learn vocabulary, refinement of grammar skills, and build confidence in expressing themselves with the Spanish language on a variety of topics. The course is aligned to Indiana's World Language Standards and the National Foreign Language Standards. This course is also available for Dual Credit through USI.

While the fourth year is critical in developing enhanced skills that will enable students to pass their college placement exams, it is also a more relaxed setting. We, throughout the course of the year, develop our listening and speaking skills with English support when needed. Vocabulary and culture/history will be of great importance.

First semester topics include personal relations/cultural values, traditions/customs/values, eating habits/food/diet/measurement terms, social changes/political terms/national identity, and contemporary society/technology/civil rights and actions. Second semester topics of study are film and entertainment, work and finances, urban and rural areas, music and musical instruments, and literature. Supporting vocabulary will coexist with these topics and grammar review.

New grammar structures will be introduced throughout each chapter while mastering previously learned grammar structures. Students will be expected to express their opinions and thoughts through spoken and written communication while using the grammar structures and vocabulary.

**University of Southern Indiana:** SPAN 203 – Intermediate Spanish I (semester 1)  
SPAN 204 – Intermediate Spanish II (semester 2)



9	10	11	12
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### 2040 GERMAN I

2/2	CREDITS/SEMESTERS
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In this course, students begin their world language study through listening, speaking, reading and writing activities. The course is aligned to Indiana’s World Language Standards and the national Foreign Language standards.

In the first semester, topics include greetings, the numbers, likes & dislikes, leisure activities, family, physical descriptions, school subjects & schedules, present tense verbs, and time. In the second semester the topics of study are animals, colors, clothing & shopping, ordering & eating in a cafe/restaurant, giving opinions, leisure activities, household chores, weather, food, and the city. Students learn to express themselves using an ever-increasing vocabulary, present tense verbs, articles, and increasingly complex grammatical structures.

Throughout the course, students learn to express themselves using an ever-increasing vocabulary, present tense verbs, articles and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Culture is sprinkled throughout the course to help the learner understand the German-speaking world and their culture, people, geographical locations and histories.

9	10	11	12
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### 2042 GERMAN II

2/2	CREDITS/SEMESTERS
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SHS Course Prerequisite: German I

This course is a continuation of German 1 and is designed to help improve skills in the German language. Students will increase their skills through listening, speaking, reading and writing activities based on pedagogically proven methods of foreign language instruction.

In the first semester, topics include household items, birthdays & holidays, gifts, body parts, sports, and travel. In the second semester, topics include vacation, healthy living & eating, health and illness, dance, animals, camping, and other outdoor activities. Students learn to express themselves using an ever-increasing vocabulary, present and past tense verbs, articles, adjectives and increasingly complex grammatical structures.

Grammar is an important component to second year as it is the basis for advanced speaking and writing in German 3 and 4. It will be practiced in a variety of ways including in class, online, homework practice, and integrated reading. Culture is sprinkled throughout the course to help students learn about German culture, people, geographical locations and histories. The course is aligned to Indiana’s World Language Standards and the national Foreign Language standards.



9	10	11	12
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### 2044 GERMAN III

2/2	CREDITS/SEMESTERS
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SHS Course Prerequisite: German II

This course is a continuation of the beginning level courses that will help the student continue learning the German language. In this course, the student will practice and learn listening, speaking, reading and writing skills through activities that are based on pedagogically proven methods of foreign language instruction.

In the first semester, students will study German speaking countries, tourist sites, holidays and events such as Oktoberfest and Sankt Nikolaus Tag, important historical events such as the Berlin Wall, foods, vacations, hobbies & interests. In the second semester the topic of study are cultural activities and holidays such as Fasching and other festivals, making plans, traveling & visiting, healthcare, concerns of Germany, and Bavarian castles.

Students learn to express themselves using an ever-increasing vocabulary, present, past, future and conditional-tense verbs, articles, adjectives and increasingly complex grammatical structures. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind.

This year will have a far greater focus on culture and reading selections of interesting and appropriately leveled material. We will increase understanding of the written material with corresponding audio and visual assistance (movies). The course is aligned to the national Foreign Language standards.

9	10	11	12
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### 2020 FRENCH I

2/2	CREDITS/SEMESTERS
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In this course, students begin their world language study through listening, speaking, reading and writing activities. The course is aligned to Indiana's World Language Standards and the national Foreign Language standards.

In the first semester, topics include greetings, the numbers, likes & dislikes, leisure activities, school subjects & schedules, and time. In the second semester the topics of study are colors, clothing & shopping, ordering & eating in a cafe/restaurant, giving opinions, leisure activities, household chores, weather, and food. Students learn to express themselves using an ever-increasing vocabulary, present tense verbs, articles, and increasingly complex grammatical structures.

Throughout the course, students learn to express themselves using an ever-increasing vocabulary, present tense verbs, articles and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Culture is sprinkled throughout the course to help the learner understand the French-speaking world and their culture, people, geographical locations and histories.



9	10	11	12
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2/2	CREDITS/SEMESTERS
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PATHWAY 2

### 0509 JOBS FOR AMERICA'S GRADUATES

The JAG course is designed to help students learn the required skills to become quality members of society. Students throughout the course will learn about the different options available to them. Students will go through a discovery process and hopefully by the end will have an idea of what they want to do in life. JAG is first and foremost focused on the students graduating high school, then what college or career choice is best for them. Students are also able to job shadow and earn community service hours, students will also work on PBL lessons and have opportunities for internships. JAG satisfies the new graduation pathway box #2. Students also have the opportunity to earn the Governor's Work Ethic Certification.

9	10	11	12
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1/1	CREDIT/SEMESTER
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2	CREDITS MAX
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### 0520 PEER TUTORING

Peer Tutoring provides high school students with an organized exploratory experience to assist students in kindergarten through grade twelve (K-12), through a helping relationship, with their studies and personal growth and development. The course provides opportunities for the students taking the course 160 Indiana Department of Education 2021-2022 High School Course Titles and Descriptions 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.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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### 4792 INTRO TO CONSTRUCTION

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.





9	10	11	12
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2/2	CREDITS/SEMESTERS
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6	DUAL CREDITS
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PATHWAY 2



PATHWAY 3



### 4802 PLTW: INTRODUCTION TO ENGINEERING DESIGN

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 begin with completing structured activities and move 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.

**Ivy Tech:** DESN 101 – Intro to Design Technology  
DESN 113 – 2D Computer-Aided Design

9	10	11	12
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2/2	CREDITS/SEMESTERS
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### 5606 ADVANCED MANUFACTURING II

SHS Course Prerequisite: Advanced Manufacturing I

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

9	10	11	12
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2/2	CREDITS/SEMESTERS
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### 5608 ADVANCED MANUFACTURING I

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



9	10	11	12
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2/2	CREDITS/SEMESTERS
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3	DUAL CREDITS
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 **PATHWAY 2**

 **PATHWAY 3**



### 5644 PLTW: PRINCIPLES OF ENGINEERING

SHS Course Prerequisite: Introduction to Engineering Design

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.

**Ivy Tech:** DESN 104 – Mechanical Graphics

9	10	11	12
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2/2	CREDITS/SEMESTERS
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3	DUAL CREDITS
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 **PATHWAY 2**

 **PATHWAY 3**



### 5650 PLTW: CIVIL ENGINEERING AND ARCHITECTURE

SHS Course Prerequisite: Introduction to Engineering Design; and Principles of Engineering Design;

This course provides an overview of the fields of Civil Engineering, Architecture, while emphasizing the interrelationship and dependence of both fields on each other. Students use state of the art software to solve real world problems and communicate solutions to hand-on projects and activities. This is a course that covers Project Lead the Way content standards.

**Ivy Tech:** DESN 105 – Architectural Design

9	10	11	12
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2/2	CREDITS/SEMESTERS
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### 5698 ENGINEERING DESIGN AND DEVELOPMENT

SHS Course Prerequisite: Introduction to Engineering Design; Principles of Engineering Design; and one pre-engineering specialty course

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 individual(s) communicates 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.

9	10	11	12
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2/2	CREDITS/SEMESTERS
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### 4798 INTRODUCTION TO TRANSPORTATION

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.



### AUTOMOTIVE 1 — 3 PERIOD BLOCK

9	10	11	12
3/1	CREDIT/SEMESTER		
9	DUAL CREDITS		



#### 7205 BRAKE SYSTEMS

This course teaches theory, service and repair of automotive braking systems. This course provides an overview of various mechanical brake systems used on today's automobiles. This course will emphasize professional diagnosis and repair methods for brake systems.

#### 7212 STEERING AND SUSPENSION

This course will study driveline theory and in-car service procedures. Theory and overhaul procedures related to the driveshaft and axle assemblies for front and rear wheel drive vehicles are included as well. Additionally, this course teaches theory, service and repair of automotive steering and suspension systems. It provides an overview of various mechanical, power, and electrical steering and suspension systems used on today's automobiles and will emphasize professional diagnosis and repair methods for steering and suspension systems.

#### 7213 PRINCIPLES OF AUTO SERVICES

This course gives students an overview of the operating and general maintenance systems of the modern automobile. Students will be introduced to the safety and operation of equipment and tools used in the automotive industry. Students will study the maintenance and light repair of automotive systems. Also, this course gives students an overview of the electrical operating systems of the modern automobile. Students will be introduced to the safety and operation of equipment and tools used in the electrical diagnosis and repair in the automotive electrical industry. Students will study the fundamentals of electricity and automotive electronics.

**Ivy Tech:** AUTI 121 – Brake Systems – 3 credits  
 AUTI 111 – Electrical Systems I – 3 credits  
 AUTI 100 – Basic Automotive Service – 3 credits

### AUTOMOTIVE 2 — 3 PERIOD BLOCK

9	10	11	12
6/2	CREDITS/SEMESTERS		
9	DUAL CREDITS		



#### 7375 AUTOMOTIVE OR DIESEL SERVICES CAPSTONE

SHS Course Prerequisite: 7205 Brake Systems, 7212 Steering and Suspension, 7213 Principles of Auto Services

This course further explores important skills and competencies within the Automotive Service Technology Pathway. Students will be exposed to an in-depth study of vehicle electrical systems. Students will study the fundamentals of electricity and automotive electronics in various automotive systems. Students will understand other topics such as Engine Repair, Climate Control, and Driveline Service. Additionally, Co-Op and Internship opportunities will be available for students.

**Ivy Tech:** AUTI 122 – Steering and Suspension Systems – 3 credits  
 AUTI 131 – Engine Performance Systems I – 3 credits  
 AUTI 145 – Driveline Service – 3 credits



9	10	11	12
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### 7386 PRINCIPLES OF TRANSPORTATION AND LOGISTICS

2/2	CREDITS/SEMESTERS
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CDL Licensing – Must be 18 before January. Students are required to get a Department of Transportation Physical and Drug Screen.

Principles of Transportation and Logistics examines the structure and importance of the commercial transportation industry in the logistics sector of business. Topics covered include an in-depth examination of the various modes of transportation including discussions of regulations, economics, characteristics, and development in major transportation modes. Also discussed are costing and pricing issues in transportation and relationship management between buyers and sellers of transportation. Additionally, this course introduces students to an overview of the CDL licensure and prepares them to get their CDL permit.

9	10	11	12
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### 7202 MANUFACTURING PRINCIPLES & DESIGN

2/2	CREDITS/SEMESTERS
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Manufacturing Principles and Design will challenge students to use 2D and 3D CAD skills to explore topics related to manufacturing principles and design. Students will gain an understanding of solid modeling and parametric solid modeling and use 3D printers to create industry part prints. Additionally, students will compare manufacturing practices like Lean Manufacturing, design and program CNC processes, and use metrology tools and practices to evaluate an object.

3	DUAL CREDITS
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QUANTITATIVE



**Ivy Tech:** DESN 195 – Manufacturing Principles & Design – 3 credits  
 DESN 220 – 3D Computer-Aided Design – 3 credits



# CAREER & TECHNICAL

## COURSES OFFERED OFF-CAMPUS

### HEALTH SCIENCE I (HOSA) — 2 CLASSES / 3 PERIOD BLOCK

9	10	11	12
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4/2	CREDITS/SEMESTERS
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3	DUAL CREDITS
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Location: VUJ Campus  
Class time: 8:00-9:30,  
10:00-11:30, 1:25-2:55

Prerequisite: (recommended) BioMed classes, A and P, AP Bio

#### 7168 PRINCIPLES OF HEALTHCARE

Principles of Healthcare content includes skills common to specific health career topics such as patient nursing care, dental care, animal care, medical laboratory, public health, and an introduction to healthcare systems. Lab experiences are organized and planned around the activities associated with the student's career objectives.

#### 5286 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 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 postsecondary 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.

**Vincennes University:** HSGN 102 – Introduction to Health Careers – 3 credits

9	10	11	12
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PART OF HOSA ROTATION	
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3	DUAL CREDITS
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Location: HOSA Class  
Class time: Varies depending  
on student schedule

#### 5274 HOSA MEDICAL TERMINOLOGY

Prerequisites/Requirements for application: must be a HOSA student

This course is offered currently with HOSA. To receive the dual credit, VU requires that Med Terms students see the HOSA instructor in person. This course builds skills in pronunciation, spelling (with 100% accuracy), and defining new words encountered in verbal and/or written information. Medical terms and abbreviations, pathology, pharmacology, diagnosis and treatment options will be taught using a body systems approach. Students must have time management skills, a strong work ethic and strong study skills, be intrinsically motivated all while working in an independent learning environment. Time dedicated DAILY must be 1.5 hours minimum to achieve success. Students will be held to a college course standard. Grades will consist of exams and research projects only.

**Vincennes University:** HMIT 110 –



# CAREER & TECHNICAL

## COURSES OFFERED OFF-CAMPUS

### 5282 HEALTH SCIENCE (CNA) — 2 CLASSES / 3 PERIOD BLOCK

9	10	11	12
4/2	CREDITS/SEMESTERS		
10	DUAL CREDITS		



Location: VUJ Campus  
 Class time: 8:00-9:30,  
 9:45-11:15

Prerequisite: keen interest in healthcare, and strong interpersonal skills/criminal background check, health physical, PPD, and influenza vaccine.

#### 7168 PRINCIPLES OF HEALTHCARE

Principles of Healthcare content includes skills common to specific health career topics such as patient nursing care, dental care, animal care, medical laboratory, public health, and an introduction to healthcare systems. Lab experiences are organized and planned around the activities associated with the student's career objectives.

#### 7166 HEALTH SPECIALIST CNA

The Healthcare Specialist: CNA prepares individuals desiring to work as nursing assistants with the knowledge, skills and attitudes essential for providing basic care in extended care facilities, hospitals and home health agencies under the direction of licensed nurses. The course will introduce students to the disease process and aspects of caring for a long-term care resident with dementia. Individuals who successfully complete this course are eligible to apply to sit for the Indiana State Department of Health (ISDH) certification exam for nursing assistants. This course meets the minimum standards set forth by the ISDH for Certified Nursing Assistant training and for health care workers in long-term care facilities.

**Vincennes University:** HSGN 200 – Nurse Assistant Prep – 5 credits  
 HSGN 102 – Introduction to Health Careers – 3 credits  
 HSGN 106 – Dementia Care – 2 credits

### 5210 EMERGENCY MEDICAL SERVICES (EMT) — 3 PERIOD BLOCK

9	10	11	12
6/2	CREDITS/SEMESTERS		
12	DUAL CREDITS		



Location: VUJC Classroom  
 Building, Memorial Hospital  
 Class time: 8:10-10:05

#### 7168 PRINCIPLES OF HEALTHCARE

#### 5274 MEDICAL TERMINOLOGY

#### 7165 EMT

Prerequisites/Requirements for application: Must turn 18 before April of the students senior year

This course is designed for individuals desiring to perform emergency medical care. Students will learn to recognize the seriousness of the patient's condition, use the appropriate emergency care techniques and equipment to stabilize the patient, and transport to the hospital. Students meeting appropriate standards will be eligible for certification by the National Registry of EMTs and the State of Indiana as Emergency Medical Technicians. This class also provides an opportunity for a great variety of experiences into the healthcare world. There is a classroom, skills lab, computer lab and a clinical component required.

**Vincennes University:** HSGN 102 – Introduction to Health Careers – 3 credits  
 HIMT 110 – Medical Terminology for Allied Health – 3 credits  
 EMTB 212 – Emergency Medical Technician – 6 credits



# CAREER & TECHNICAL

## COURSES OFFERED OFF-CAMPUS

### 5230 IT SUPPORT/CYBER SECURITY — 3 PERIOD BLOCK

9	10	11	12
6/2	CREDITS/SEMESTERS		
14	DUAL CREDITS		



Location: VUJ CTIM building  
Class time: 8:10-10:05

#### 7183 PRINCIPLES OF COMPUTING

#### 7180 IT FUNDAMENTALS

#### 7181 NETWORKING CYBERSECURITY OPERATIONS

Students will learn how to support and maintain many different technology devices and prepare students for a computer certification that will benefit them in multiple career choices. Technology is a part of our lives, and is embedded in almost every career path. This class will prepare students to be comfortable addressing technology issues that might arise in everyday use of technology. The students leave this course able to troubleshoot general technology issues and resolve many of those issues. Hands-on activities, such as building computers, repairing printers, soldering, and using numerous testing tools, gives the students real experiences to carry them into future careers. Students will be introduced to the fundamentals of Cybersecurity.

**Vincennes University:** COMP 177 – Intro to Programming and Logic – 3 credits  
COMP 236 – Operating Systems 1 – 3 credits  
CNET 151 – Intro to Data Security – 3 credits  
CMET 140 – Comp TIA A+ – 3 credits  
CMET 185 – Comp TIA A+ – 2 credits

### 5610 AUTOMATION AND ROBOTICS I — 3 PERIOD BLOCK

...OR 4T (will earn different dual credits)

9	10	11	12
6/2	CREDITS/SEMESTERS		
12	DUAL CREDITS		



Location: VUJ CTIM Building  
Class time: 8:10-10:05

#### 7108 PRINCIPLES OF MANUFACTURING

#### 7103 ADVANCED MANUFACTURING TECHNOLOGY

#### 7106 MECHATRONICS

The classroom experience will focus on an introduction to manufacturing, Industrial Maintenance, Fluid Powers and Pneumatics, Industrial Automation, and Robotics.

**Vincennes University:** MGNG 130 – Intro to Industrial Maintenance – 3 credits  
CIMT 110 – Concepts in Electronics for Automation – 3 credits  
CIMT 110L – Concepts in Electronics for Automation Lab – 3 credits  
CIMT 220 – Concepts and Application in Industrial Automation – 3 credits

### 5612 AUTOMATION AND ROBOTICS II — 3 PERIOD BLOCK

...OR 4T (will earn different dual credits)

9	10	11	12
6/2	CREDITS/SEMESTERS		
4	DUAL CREDITS		



Location: VUJ CTIM Building  
Class time: 1:15-3:00 EST

#### 5612 AUTOMATION AND ROBOTICS II

Prerequisites/Requirements for application: ARA 1

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

**Vincennes University:** CIMT 201 – Concepts of Fluids for Industrial Maintenance – 2 credits  
CIMT 202 – Concepts of PLC – 2 credits





# CAREER & TECHNICAL

## COURSES OFFERED OFF-CAMPUS

### 5580 CONSTRUCTION TRADES I — 3 PERIOD BLOCK

9	10	11	12
6/2	CREDITS/SEMESTERS		
15	DUAL CREDITS		



Location: VUJ CTIM  
Building  
Class time: 8:10-10:05 EST

#### 7130 PRINCIPLES OF CONSTRUCTION

#### 7123 GENERAL CARPENTRY

#### 7122 FRAMING AND FINISHING

Students will meet at VUJ 5 days per week for instruction to earn a dual credits. Students will complete labs, visit construction sites, while completing all aspects of the building process.

**Vincennes University:** CNST 120 – Construction Safety – 3 credits  
CNST 100 – Construction Seminar – 1 credit  
CNST 180 – Concrete and Masonry – 2 credits  
CNST 180L – Concrete and Masonry Lab – 1 credit  
CNST 105 – Framing – 2 credits  
CNST 105L – Framing Lab – 2 credits  
CNST 160 – Finish Carpentry – 2 credits  
CNST 160L – Finish Carpentry – 2 credits

### 5578 CONSTRUCTION TRADES II — 3 PERIOD BLOCK

9	10	11	12
6/2	CREDITS/SEMESTERS		
	DUAL CREDITS		



Location: VUJ CTIM  
Building. Build a new Habitat  
for Humanity home  
Class time: 1:00-3:00

#### 7242 CONSTRUCTION CAPSTONE

Prerequisites/Requirements for application: Construction Trades 1

Students will meet at VUJC 1 time per week for instruction to earn a VU dual credit. Students will be at the new home build site 4 days per week. Students will complete all aspects of the building process. Students will complete an internship with a local contractor after completing a Habitat for Humanity house.

**Vincennes University:** CNST 155 – Electrical Wiring – 2 credits  
CNST 155L – Electrical Wiring – 1 credit  
CNST 261 – The Indiana Residential Code for One & Two Family Dwellings – 3 credits  
CNST 220 – Construction Internship – 2 credits  
CNST 272 – Portfolio Development – 2 credits

### FIRE SCIENCE — 3 PERIOD BLOCK

9	10	11	12
6/2	CREDITS/SEMESTERS		
9	DUAL CREDITS		



Location: Pike Central HS  
Class time: 12:50-3:10

#### 7195 PRINCIPLES OF FIRE FIGHTING

#### 7189 FIRE FIGHTING FUNDAMENTALS

#### 7186 ADVANCED FIRE

Students will earn credits related to fire safety. The classroom will include coursework as well as labwork. The instructor will be a certified fire instructor which will allow students to complete the Fire Safety Exam. This program will partner with local fire departments to conduct training exercises.

**Ivy Tech:** 9 credits



# CAREER & TECHNICAL

## COURSES OFFERED OFF-CAMPUS

### 5524 AVIATION 1 — 3 PERIOD BLOCK

9	10	11	12
6/2	CREDITS/SEMESTERS		
5	DUAL CREDITS		



Location: Huntingburg  
Airport  
Class time: 1:00-3:00

#### 7214 PRINCIPLES OF AVIATION

#### 7217 PRIVATE PILOT THEORY

#### 7207 AVIATION SAFETY AND OPERATIONS

This course provides the student the opportunity to develop an understanding of various aspects of the aviation industry to include general regulations and laws associated with the field. Included is an overview of the aviation field and all employment opportunities. The student will receive ground school knowledge required for certification as a private pilot with an airplane single engine land rating. Areas of study include aerodynamics, aircraft systems, performance, weight and balance, physiology, regulations, cross country planning, weather, and decision-making skills. This course is an overview of general aviation operations, including the operation and management of the Fixed Base Operation (FBO). It introduces the challenges and complexity of aviation security faced by aviation professionals across the industry and traces the evolution of current security approaches and explores technologies and processes targeting threat mitigation and improved operational efficiency.

**Vincennes University:** AMNT 100 – Intro to Aviation – 2 credits  
AFLT 258 – Air Transportation – 3 credits

### 5524 AVIATION 2 — 3 PERIOD BLOCK

9	10	11	12
6/2	CREDITS/SEMESTERS		
7	DUAL CREDITS		



Location: Huntingburg  
Airport  
Class time: 1:00-3:00

#### 5524 AVIATION PILOT

Location: Huntingburg Airport  
Class time: 1:00-3:00

Students will complete coursework related to pilot training 3 days per week and complete an internship at airport 2 days per week.

**Vincennes University:** AMNT 210 – Aircraft Systems, Performance, and Aerodynamics – 3 credits  
AFLT 100 – Private Ground School – 4 credits

### 0000 BUSINESS MANAGEMENT AND ADMINISTRATION — 3 PERIOD BLOCK

9	10	11	12
6/2	CREDITS/SEMESTERS		

Location: VUJ  
Class time: 1:00-3:00

#### 7153 PRINCIPLES OF BUSINESS OPERATIONS AND TECHNOLOGY

#### 7144 BUSINESS OFFICE COMMUNICATIONS

#### 7146 DIGITAL DATA APPLICATIONS

Introduction to business operations, management, and administration. Students will participate in an embedded workplace experience.



# CAREER & TECHNICAL

## COURSES OFFERED OFF-CAMPUS

### 5776 WELDING I — 3 PERIOD BLOCK

9	10	11	12
6/2	CREDITS/SEMESTERS		
9	DUAL CREDITS		



Location: Pike Central HS  
Class time: 8:45-11:15 M-F

#### 7110 PRINCIPLES OF WELDING

#### 7111 SHIELDED METAL ARC

#### 7101 GAS WELDING

Welding 1 is a one-year course for 11th grade students. The class meets three hours per day. Students gain experience and knowledge in the following processes using the A.W.S. Entry-level Welder Training Program:

1. Shielded Metal Arc Welding (S.M.A.W.)
2. Gas Metal Arc Welding (G.M.A.W. or M.I.G.)
3. Flux Core Arc Welding (F.C.A.W.)
4. Gas Tungsten Arc Welding (G.T.A.W. or T.I.G.)
5. Oxy-Acetylene Welding and Cutting (O.A.W. and O.F.C.-A)
6. Brazing
7. Air Carbon Arc Cutting
8. Plasma Arc Cutting
9. Blueprint Reading and Weld Symbols

**Ivy Tech:** WELD 100 – Principles of Welding – 3 credits  
WELD 108 – Shielded Metal Arc Welding – 3 credits  
WELD 207 – Gas Metal Arc Welding – 3 credits

### 5778 WELDING II — 3 PERIOD BLOCK

9	10	11	12
6/2	CREDITS/SEMESTERS		
12	DUAL CREDITS		



Location: Pike Central HS  
Class time: 12:50-3:15

#### 5778 WELDING II

Prerequisites/Requirements for application: Welding 1

Welding 2 is a one-year course for 12th grade students. The class meets three hours per day. Students gain additional experience and knowledge in the following processes using the A.W.S. Entry-level Welder Training Program:

1. Shielded Metal Arc Welding (S.M.A.W.)
2. Gas Metal Arc Welding (G.M.A.W. or M.I.G.)
3. Flux Core Arc Welding (F.C.A.W.)
4. Gas Tungsten Arc Welding (G.T.A.W. or T.I.G.)
5. Oxy-Acetylene Welding and Cutting (O.A.W. and O.F.C.-A)
6. Brazing
7. Air Carbon Arc Cutting
8. Plasma Arc Cutting
9. Blueprint Reading and Weld Symbols

**Ivy Tech:** WELD 272 – Advanced Gas Metal Arc Welding – 3 credits  
WELD 206 – Advanced Shielded Metal Arc Welding – 3 credits  
WELD 208 – Gas Tungsten Arc Welding – 3 credits  
WELD 273 – Advanced Gas Tungsten Arc Welding – 3 credits



# CAREER & TECHNICAL

## COURSES OFFERED OFF-CAMPUS

### 5782 PRECISION MACHINING I — 3 PERIOD BLOCK

9	10	11	12
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6/2	CREDITS/SEMESTERS
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11	DUAL CREDITS
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Location: Pike Central HS  
Class time: 8:45-11:15

#### 7109 PRINCIPLES OF PRECISION MACHINING

#### 7105 MACHINING FUNDAMENTALS

#### 7107 ADV. MACHINING

Introduction to manual machining using manual mills, lathes, surface grinders, drill presses, and saws. Blueprint reading, metallurgy, shop math, and safety incorporated into curriculum. Students machine basic machinist tools.

**Vincennes University:** PMTD 110 – Manufacturing Processes – 2 credits  
PMTD 110L – Manufacturing Processes Lab – 1 credits  
PMTD 120 – General Machines – 6 credits  
PMTD 105 – Understanding Industrial Blueprints – 2 credits

### HUMAN AND SOCIAL SERVICES — 3 PERIOD BLOCK

9	10	11	12
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6/2	CREDITS/SEMESTERS
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21	DUAL CREDITS
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Location: VUJ Campus  
Class time: 8:10-10:05

#### 7176 PRINCIPLES OF HUMAN SERVICES

Principles of Human Services explores the history of human services, career opportunities, and the role of the human service worker. Focuses on target populations and community agencies designed to meet the needs of various populations. The course includes a required job shadowing project in a Human Services setting (a suggested four-hour minimum to meet Ivy Tech requirements). This course will also encourage cultural awareness and appreciation of diversity. Focuses on cultural variations in attitudes, values, language, gestures, and customs. Includes information about major racial and ethnic groups in the United States.

#### 7174 UNDERSTANDING DIVERSITY

Understanding Diversity encourages cultural awareness and appreciation of diversity. Focuses on cultural variations in attitudes, values, language, gestures, and customs. Includes information about major racial and ethnic groups in the United States.

#### 7177 RELATIONSHIPS & EMOTIONS

Relationship & Emotions examines the key elements of healthy relationships. Explores the main problems that damage relationships. Presents research findings on successful and unsuccessful relationships, and emotional connections. Explores the impact of one's emotional and relationship history on current and future romantic relationships. Presents practical, scientific-based skills for improving relationships. Additionally, this course offers practical and useful information for people who have experienced loss. Students have the opportunity to evaluate their own experiences and attitudes toward loss and grief.

**Vincennes University:** SOCL 153 – Intro to Social Work – 3 credit hours  
SOCL 164 – Introduction to Multicultural Studies – 3 credit hours  
SOCL 261 – Sociology of Relationships and Family – 3 credit hours  
SOCL 260 – Sociological Aspects of Death – 3 credit hours  
SOCL 180 – Addiction Disorders and Psychoactive Drugs – 3 credit hours  
PSYC 218 – Psychology of Childhood and Adolescence – 3 credit hours  
PSYC 291 – Introduction to Disabilities – 3 credit hours



# CAREER & TECHNICAL

## COURSES OFFERED OFF-CAMPUS

### CRIMINAL JUSTICE — 3 PERIOD BLOCK

9	10	11	12
6/2	CREDITS/SEMESTERS		
12	DUAL CREDITS		



Location: VUJ Campus  
Class time: 8:10-10:05

#### 7193 PRINCIPLES OF CRIMINAL JUSTICE

Principles of Criminal Justice covers the purposes, functions, and history of the three primary parts of the criminal justice system: law enforcement, courts, and corrections. This course further explores the interrelationships and responsibilities of these three primary elements of the criminal justice system.

#### 7191 LAW ENFORCEMENT FUNDAMENTALS

Law Enforcement Fundamentals Critically examines the history and nature of the major theoretical perspectives in criminology, and the theories found within those perspectives. Analyzes the research support for such theories and perspectives, and the connections between theory and criminal justice system practice within all the major components of the criminal justice system. Demonstrates the application of specific theories to explain violent and non-violent criminal behavior on both the micro and macro levels of analysis. Additionally, this course will introduce fundamental law enforcement operations and organization. This includes the evolution of law enforcement at federal, state, and local levels.

#### 7188 CORRECTIONS & CULTURAL AWARENESS

Corrections and Cultural Awareness emphasizes the study of American criminal justice problems and systems in historical and cultural perspectives, as well as discussing social and public policy factors affecting crime. Multidisciplinary and multicultural perspectives are stressed. Additionally, this course takes a further examination of the American correctional system; the study of administration of local, state, and federal correctional agencies. The examination also includes the history and development of correctional policies and practices, criminal sentencing, jails, prisons, alternative sentencing, prisoner rights, rehabilitation, and community corrections including probation and parole. Current philosophies of corrections and the debates surrounding the roles and effectiveness of criminal sentences, institutional procedures, technological developments, and special populations are discussed.

**Vincennes University:** LAWE 100 – Survey of Criminal Justice – 3 credits  
LAWE 101 – Basic Police Operations – 3 credits  
LAWE 150 – Criminal Minds and Deviant Behavior – 3 credits  
LAWE 145 – Ethics and Professionalism in Criminal Justice – 3 credits



# CAREER & TECHNICAL

## COURSES OFFERED OFF-CAMPUS

### EDUCATION PROFESSIONS I — 3 PERIOD BLOCK

9	10	11	12
6/2	CREDITS/SEMESTERS		
9	DUAL CREDITS		



Location: VUJ Campus  
Class time: 8:10-10:05

#### 7161 PRINCIPLES OF TEACHING

This course provides a general introduction to the field of teaching. Students will explore educational careers, teaching preparation, and professional expectations as well as requirements for teacher certification. Current trends and issues in education will be examined. A minimum 20 hour classroom observation experience is required for successful completion of this course.

#### 7157 CHILD & ADOLESCENT DEVELOPMENT

Child and Adolescent Development examines the physical, social, emotional, cognitive, and moral development of the child from birth through adolescence with a focus on the middle years through adolescence. Basic theories of child development, biological and environmental foundations of development, and the study of children through observation and interviewing techniques are explored. The influence of parents, peers, the school environment, culture and the media are discussed. An observation experience up to 20 hours may be required for completion of this course. This course has been approved to be offered for dual credit. Students pursuing this course for dual credit are still required to meet the minimum prerequisites for the course and pass the course with a C or better in order for dual credit to be awarded.

#### 7162 TEACHING & LEARNING

Teaching and Learning provides students the opportunity to apply many of the concepts that they have learned throughout the Education Professions pathway. In addition to a focus on best practices, this course will provide an introduction to the role that technology plays in the modern classroom. Through hands-on experience with educational software, utility packages, and commonly used microcomputer hardware, students will analyze ways to integrate technology as a tool for instruction, evaluation, and management.

**Vincennes University:** EDUC 291 – Introduction to Exceptionalities – 3 credits  
EDUC 292 – Foundations in Education – 3 credits  
EDUC 200 – Technology in Education – 3 credits

### 7267 EDUCATION PROFESSIONS CAPSTONE — 3 PERIOD BLOCK

9	10	11	12
6/2	CREDITS/SEMESTERS		

Location: Southridge HS  
Class time: 8:10-10:35

#### 7267 EDUCATION PROFESSIONS CAPSTONE

The Education Professions Capstone provides an extended opportunity for field experience to further apply concepts that have been presented throughout the pathway. Students will also have the opportunity to explore the topics of exceptional child and literacy development through children's literature. Students will gain a deeper understanding of inclusive teaching techniques along with policies, theories, and laws related to special education. Students interested in pursuing a career in Elementary Education are encouraged to also study the benefits of using children's literature in the classroom. This course may be further developed to include specific content for students interested in pursuing a career in secondary education. The course should include a significant classroom observation and assisting experience.



# CAREER & TECHNICAL

## COURSES OFFERED OFF-CAMPUS

### 5974 WORK BASED LEARNING (INTERNSHIP) – DUBOIS COUNTY — 3 PERIOD BLOCK

9	10	11	12
4/2	CREDITS/SEMESTERS		

Location: Approved Worksite  
 Class time: 2 class periods  
 + travel, whenever it fits into  
 student schedule

Prerequisites/Requirements for application:

- High School Senior
- 95% attendance rate (missed fewer than 9 days junior year)
- Have a cumulative GPA of 2.5 on a 4.0 scale. Jasper students need at least a 3.0 or higher with the weighted scale.
- Have a reliable means of transportation.
- Have a strong work ethic, strong communication skills, and a desire to learn.
- Students interested in taking Internship should have completed 1 advanced CTE Course in a pathway related to their requested internship discipline.

The Work Based Learning Program is a course of work experience in which the student is provided an opportunity to experience a variety of job related activities that are associated within a specific career. Work Based Learning recognizes that classroom learning provides only part of the skills and knowledge students need to succeed in college or a career. By creating opportunities to learn in the workplace, students are provided work experiences that allow them to explore or ensure their college or career choice is the right one for them. As the student completes his or her job shadow, hands on, and work experiences they will be under the supervision of the internship coordinator. The internship coordinator will work closely with the professional or master craftsman to make sure that the school, the student, and internship provider is carrying out all responsibilities of the internship. Students will be required to complete an application prior to the beginning of class. The purpose of the application is to ensure that the student is in good standing in other classes required for graduation and that prior classes relate to the student's internship choice. Internships typically are not paid. Note that students pursuing experiences in the medical field should do so through the Health Occupations class, students in Professional Career Internship will not be placed in medical training stations.





# CAREER & TECHNICAL

## COURSES OFFERED OFF-CAMPUS

### 6162 COOPERATIVE EDUCATION (ICE) – DUBOIS COUNTY — 3 PERIOD BLOCK

9	10	11	12
6/2	CREDITS/SEMESTERS		

Location: Approved ICE  
 Worksite  
 Class time: Typically periods  
 5, 6, 7

Prerequisites/Requirements for application:

- High School Senior
- 90% attendance rate (missed fewer than 18 days junior year)
- Not have a history if behavior concerns that would make an employer question the students character and or ability to be a productive employee. (Examples include cases of excessive insubordination, fighting, written referrals by school personnel, etc.)
- Have a reliable means of transportation.
- Have a strong work ethic, strong communication skills, and a desire to learn.
- Students should be on track for graduation.

ICE is a senior level course designed to provide a valuable work-based learning experience in pathways offered to students at their school. The course consists of on the job work and a classroom portion. The ICE instructor teaches a variety of career success skills for the classroom portion. Much of the classroom instruction is delivered on-line thus students are not required to be in class every day. Students are required to work in a paid job a minimum of 15 hours per week; the course will be three periods per day. Work hours are typically during the school day, however other arrangements may be made depending on circumstances. Students will be required to complete an application prior to the beginning of class. The purpose of the application is to ensure that the student is in good standing in other classes required for graduation. Also the student must not have a record of discipline issues at school. A student currently working may have that job approved by the instructor if the job holds the rigor of the intent of this course. The job should provide new and relevant experiences helping to prepare the student for related careers following high school. Personal transportation and a work permit are required.

