

Triton Jr./Sr. High School

High School Course Description Guide

2027 - 2028

ADMINISTRATION

Mr. Nathan McKeand
Principal
nmckeand@triton.k12.in.us

Mrs. Sarrah Arvesen
Dean of Students
sarvesen@triton.k12.in.us

Mr. Rodney Younis
Athletic Director
ryounis@triton.k12.in.us

SCHOOL COUNSELOR

Mrs. Ashli Faulkner
7th-12th Grade Counselor
afaulkner@triton.k12.in.us

OFFICE STAFF

Mrs. Mendy Davis- Main Office
Mrs. Kim Stetzel - Guidance

The following Guidance activities are planned to help students develop an appropriate course of study for the 2027-2028 school year:

- Mrs. Faulkner, and as time allows Mrs. Arvesen and/or Mr. Shafer will meet with 7th-12th grade students to determine class selections and review each student's four year graduation plan.
- Mrs. Faulkner, and as time allows Mrs. Arvesen, will meet with 11th and 12th grade students to review graduation requirements, post-secondary plans, college entrance requirements, and senior courses.
- Mrs. Faulkner will meet with all 7th grade students to determine class selections and build each student's four year graduation plan.
- Counselors will conduct an evening informational session for parents of incoming freshmen to give an overview of high school life, including curriculum and graduation requirements.

SCHEDULE CHANGES

Classes may be changed during the first three days of each semester for the following reasons: unscheduled class period, class needed to complete graduation requirements, elective change, or failure of a prerequisite.

***For 2027-2028, schedule change requests need to be submitted before the school year begins.

GRADES AND ATHLETIC ELIGIBILITY

To demonstrate the importance of academics, we have adopted a "NO PASS - NO PLAY" rule. Students who receive a failing grade during any of the nine week grading periods will become ineligible until the next mid-term progress report. Mid-term grades can be used to make athletes eligible for participation, but the mid-term grade will not be used to make an athlete ineligible.

Triton Jr-Sr High School

Indiana Core 40 Diploma Requirements

THIS DIPLOMA IS VALID FOR THE CLASS OF 2027 & 2028

ENGLISH	English 9, English 10, English 11, English 12	8 Credits
MATH*	Algebra I, Geometry, Algebra II	6 Credits
SCIENCE	Biology, Chemistry, 2 additional credits	6 Credits
SOCIAL STUDIES	World History, US History, Government, Economics	6 Credits
PHYSICAL ED	PE I and PE II	2 Credits
HEALTH	Health & Wellness	1 Credit
REQUIRED ELECTIVE	Prep for College and Careers	1 Credit

Must also complete five total credits in any of the following three areas:

WORLD LANGUAGE	Spanish	
FINE ARTS	Art or Music	
CAREER/TECHNICAL	Any career oriented electives	
		5 Credits

ELECTIVE CREDITS	Any elective classes beyond requirements listed above	6 Credits

**Students MUST take a Math OR "Quantitative Reasoning" class every year of High School. See list of Quantitative reasoning classes at the end of the diploma requirements section.*

TOTAL NUMBER OF CREDITS REQUIRED: **41 Credits**



Triton Jr-Sr High School

Indiana Core 40 with Academic Honors Diploma Requirements

THIS DIPLOMA IS VALID FOR THE CLASS OF 2027 & 2028

ENGLISH	English 9, English 10, English 11, English 12	8 Credits
MATH*	Algebra I, Geometry, Algebra II, 2 additional credits	8 Credits
SCIENCE	Biology, Chemistry, 2 additional credits	6 Credits
SOCIAL STUDIES	World History, US History, Government, Economics	6 Credits
PHYSICAL ED	PE I and PE II	2 Credits
HEALTH	Health & Wellness	1 Credit
REQUIRED ELECTIVE	Prep for College and Careers	1 Credit

FINE ARTS	Music or Art classes	2 Credits
WORLD LANGUAGE	Spanish I, Spanish II, Spanish III	6 Credits

ELECTIVE CREDITS	Any elective classes beyond requirements listed above	7 Credits

GPA REQUIREMENT	Must have a minimum of 2.9 GPA at the end of 12th grade
GRADE REQUIREMENT	No semester grade lower than a C-

MUST COMPLETE 1 OF THE FOLLOWING:

Four AP Credits & Exams
Two AP Credits & Exams and one Dual Credit Class*
Two Dual Credit Classes*
1250 SAT Score (Minimum scores: 560-Math, 590-EBRW)
26 ACT (includes writing section)

**Students MUST take a Math OR "Quantitative Reasoning" class every year of High School. See list of Quantitative reasoning classes at the end of the diploma requirements section.*

TOTAL NUMBER OF CREDITS REQUIRED: **47 Credits**

Triton Jr-Sr High School

Indiana Core 40 with Technical Honors Diploma Requirements

THIS DIPLOMA IS VALID FOR THE CLASS OF 2027 & 2028

ENGLISH	English 9, English 10, English 11, English 12	8 Credits
MATH*	Algebra I, Geometry, Algebra II	6 Credits
SCIENCE	Biology, Chemistry, 2 additional credits	6 Credits
SOCIAL STUDIES	World History, US History, Government, Economics	6 Credits
PHYSICAL ED	PE I and PE II	2 Credits
HEALTH	Health & Wellness	1 Credit
REQUIRED ELECTIVE	Prep for College and Careers	1 Credit

Must also complete five total credits in any of the following three areas:

WORLD LANGUAGE	Spanish	
FINE ARTS	Art or Music	
CAREER/TECHNICAL	Any career oriented electives	
		5 Credits

Must complete six credits in a College and Career Pathway and one of the following:

Pathway designated industry-based certification
Pathway dual credits resulting in 6 transcripted credits

ELECTIVE CREDITS	Any elective classes beyond requirements listed above	6 Credits

GPA REQUIREMENT	Must have a 2.9 GPA at the end of 12th grade
GRADE REQUIREMENT	No semester grade lower than a C- in classes required for the diploma

MUST COMPLETE ONE OF THE FOLLOWING:

Achieve required WorkKeys Score
Earn minimum scores on Accuplacer test
Earn minimum score on Compass test
Achieve any one of the five options of the Academic Honors Diploma

Quantitative reasoning classes at the end of the diploma requirements section.

TOTAL NUMBER OF CREDITS REQUIRED: **47 Credits**

Triton Jr-Sr High School

Indiana General Diploma Requirements

(REQUIRES Core 40 Opt Out Form)

THIS DIPLOMA IS VALID FOR THE CLASS OF 2027 & 2028

ENGLISH	English 9, English 10, English 11, English 12	8 Credits
MATH*	Algebra I, 2 additional credits	4 Credits
SCIENCE	Biology, 2 additional credits	4 Credits
SOCIAL STUDIES	US History, Government, 1 additional credit	4 Credits
PHYSICAL ED	PE I and PE II	2 Credits
HEALTH	Health & Wellness	1 Credit
REQUIRED ELECTIVE	Prep for College and Careers	1 Credit
FINANCIAL LITERACY	Economics, Personal Finance, or Adult Roles	1 Credit

CAREER SEQUENCE	Any Career Pathway	6 Credits

ELECTIVE CREDITS	Any elective classes beyond requirements listed above	9 Credits

**Students MUST take a Math OR "Quantitative Reasoning" class every year of High School. See list of Quantitative reasoning classes at the end of the diploma requirements section.*

TOTAL NUMBER OF CREDITS REQUIRED: **40 Credits**



Quantitative Reasoning Classes

**Any Core 40, Academic Honors, and Technical Honors students must take a mathematics course or a quantitative reasoning course each year they are enrolled in high school. General Diploma students must earn two credits in a mathematics course or a quantitative reasoning course during their junior or senior year.*

Integrated Chemistry-Physics

Chemistry I

Physics I

AP Physics I - Algebra-Based

Business Math

Personal Financial Responsibility

Economics

Construction Trades II

Advanced Life Science, Animals

Advanced Life Science, Plants and Soils

Computer Science (I & II)

Computer Integrated Manufacturing

Principles of Engineering

Industrial Automation and Robotics

Precision Machining (I & II)

Robotics Design and Innovation

Additional Core 40 Science Courses Offered at Triton Jr./Sr. High School

To earn a Core 40 diploma designation, students are still required to obtain:

(1) two credits of Biology I,

(2) two credits of Chemistry I or Physics I or Integrated Chemistry-Physics, and

(3) two credits of any other Core 40 science course.

Principles of Engineering
Animal Science
Advanced Life Science: Animals
Plant and Soil Sciences
Advanced Life Science: Plants and Soils
PLTW Human Body Systems
PLTW Medical Interventions
PLTW Principles of Biomedical Science
Principles of Computing
Topics in Computer Science
Computer Science

Triton Jr-Sr High School

Indiana Diploma Requirements

THIS DIPLOMA IS FOR THE CLASS OF 2029 and Beyond

INDIANA DEPARTMENT of EDUCATION

THE NEW INDIANA DIPLOMA: EARNING CREDITS FOR SY 2025-2026

The new Indiana diploma, effective for all students beginning with the class of 2029, includes a base (minimum requirements) for every student, plus the opportunity to earn readiness seals aligned with their unique path. Students are encouraged to seize this flexibility by personalizing their high school experience. The new seals provide additional intentionality to maximize readiness and are designed to be permeable, allowing students to update their graduation plan and pivot, if their original interests and goals change. Students who do not earn a seal must still complete components 2 and 3 of Graduation Pathways.

		REQUIRED CREDITS	FLEXIBLE CREDITS
ENGLISH	8 CREDITS	• 2 credits: English 9 • 1 credit: Communications-focused course	• 5 additional English credits ○ Ex.: English 10-12, American Literature, World Literature, Expository Writing, etc.
MATH	7 CREDITS	• 2 credits: Algebra I • 1 credit: Personal Finance	• 4 additional math credits ○ Ex. Geometry, Algebra II, Pre-Calculus, Probability and Statistics, Business Math, etc.

SCIENCE, TECHNOLOGY, AND ENGINEERING	7 CREDITS	• 2 credits: Biology I
		• 1 credit: Computer Science
			• 2 additional science credits
			  ○ Ex. Biology II, Chemistry I, Physics I, etc.
			• 2 STEM-focused credits
			  ○ Ex. Plant and Soil Science, Principles of Engineering, Software Development, etc.

SOCIAL STUDIES	5 CREDITS	• 2 credits: U.S. History • 1 credit: U.S. Government	• 2 credits: World Perspectives ○ Ex. Geography and History of the World, AP World History, French III, etc.
PE/HEALTH	2 CREDITS	• 1 credit: Physical Education • 1 credit: Health & Wellness	
PERSONALIZED ELECTIVES	12 CREDITS	Students are encouraged to utilize the new readiness-seals to align these personalized electives with their unique goals. Personalized electives can include a variety of courses, such as Career and Technical Education (CTE), Performing or Fine Arts, and World Languages.	
COLLEGE & CAREERS	1 CREDIT	• 1 credit: Preparing for College & Careers	Preparing for College and Careers can be offered in middle school to provide additional flexibility in a student's high school schedule.

A complete list of eligible courses for the 2025-2026 school year can be found here.

Note: The federally-required alternate diploma for students in special education with a significant cognitive disability is still available.

Triton Jr-Sr High School

Indiana Diploma Honors Seals Requirements

THIS DIPLOMA IS FOR THE CLASS OF 2029 and Beyond

****Students MUST meet the Indiana Diploma Requirements above PLUS the following:**

INDIANA DEPARTMENT of EDUCATION

BLUEPRINT FOR SUCCESS: READINESS-SEALS

Readiness seals are designed to be permeable, allowing students to update their graduation plan and pivot, if their original interests and goals change. Although seals are optional, students are encouraged to utilize the blueprints below to focus their flexible credits into a connected pathway that aligns with their future goals. Students may earn one or multiple seals. Graduation Pathways requirements will be satisfied through completion of any seal.

HONORS SEAL

ENROLLMENT

- Complete at least 4 World Language and 6 Social Studies credits
- Complete at least 8 Math credits
  - Algebra I plus Geometry, Algebra II, and Pre-Calculus or any advanced math credits aligned to their course of study
- Complete at least 6 Science credits
  - Biology I plus Chemistry and Physics or any advanced lab science credits aligned to their course of study
- Earn a C or higher in all courses and earn a cumulative B average
- Complete one of the following:
  - Earn 4 credits in AP, IB, or Cambridge courses and take corresponding exams
  - Earn 6 college credits
  - Score a 1250 on the SAT or a 26 on the ACT
  - Earn two of the following:
    - At least 3 college credits
    - 2 credits in AP courses and take corresponding exams
    - 2 credits in IB courses and take corresponding exams
    - 2 credits in Cambridge courses and take corresponding exams

EMPLOYMENT

- Complete one of the following:
  - A market-driven credential of value aligned to a specific occupation
  - 3 courses in a Career and Technology Education (CTE) pathway
  - An approved career preparation experience aligned to Indiana's CSA program, or
  - An approved, locally-created pathway
- Complete 150 hours of work-based learning (may include multiple experiences that are paid, unpaid, on-site, or simulated)
- Demonstrate skill development in Communication, Collaboration, and Work Ethic
- Meet attendance goal:
  - At least 1 school year with no more than 3 days of unexcused absences; or
  - At least 150 hours of work-based learning experience with no more than 3 unexcused absences.

ENLISTMENT & SERVICE

- Complete one of the following:
  - Introduction to Public Service course or approved locally-created equivalent
    - Emphasis on developing an awareness of the physical standards and character required for service
  - One year of JROTC or Civil Air Patrol in high school
- Achieve a score of 31 on the ASVAB and complete one of the following:
  - All three components of the Career Exploration Program
  - A career exploration tool approved by IDOE
- Meet attendance goal:
  - At least 1 school year with no more than 3 days of unexcused absences
- Demonstrate skill development in Communication, Collaboration, and Work Ethic
  - Externally verified through a mentorship experience with current military personnel, veterans, or other public safety professionals

Triton Jr-Sr High School

Indiana Diploma Honors PLUS Seals Requirements

THIS DIPLOMA IS FOR THE CLASS OF 2029 and Beyond

****Students MUST meet the Requirements of the Indiana Diploma Requirements, the Honors Seal above, PLUS the following:**

INDIANA DEPARTMENT of EDUCATION

BLUEPRINT FOR SUCCESS: READINESS-SEALS

Readiness seals are designed to be permeable, allowing students to update their graduation plan and pivot, if their original interests and goals change. Although seals are optional, students are encouraged to utilize the blueprints below to focus their flexible credits into a connected pathway that aligns with their future goals. Students may earn one or multiple seals. Graduation Pathways requirements will be satisfied through completion of any seal.

HONORS SEAL

ENROLLMENT

- Complete at least 4 World Language and 6 Social Studies credits
- Complete at least 8 Math credits
  - Algebra I plus Geometry, Algebra II, and Pre-Calculus or any advanced math credits aligned to their course of study
- Complete at least 6 Science credits
  - Biology I plus Chemistry and Physics or any advanced lab science credits aligned to their course of study
- Earn a C or higher in all courses and earn a cumulative B average
- Complete one of the following:
  - Earn 4 credits in AP, IB, or Cambridge courses and take corresponding exams
  - Earn 6 college credits
  - Score a 1250 on the SAT or a 26 on the ACT
  - Earn two of the following:
    - At least 3 college credits
    - 2 credits in AP courses and take corresponding exams
    - 2 credits in IB courses and take corresponding exams
    - 2 credits in Cambridge courses and take corresponding exams

EMPLOYMENT

- Complete one of the following:
  - A market-driven credential of value aligned to a specific occupation
  - 3 courses in a Career and Technology Education (CTE) pathway
  - An approved career preparation experience aligned to Indiana's CSA program, or
  - An approved, locally-created pathway
- Complete 150 hours of work-based learning (may include multiple experiences that are paid, unpaid, on-site, or simulated)
- Demonstrate skill development in Communication, Collaboration, and Work Ethic
- Meet attendance goal:
  - At least 1 school year with no more than 3 days of unexcused absences; or
  - At least 150 hours of work-based learning experience with no more than 3 unexcused absences.

ENLISTMENT & SERVICE

- Complete one of the following:
  - Introduction to Public Service course or approved locally-created equivalent
    - Emphasis on developing an awareness of the physical standards and character required for service
  - One year of JROTC or Civil Air Patrol in high school
- Achieve a score of 31 on the ASVAB and complete one of the following:
  - All three components of the Career Exploration Program
  - A career exploration tool approved by IDOE
- Meet attendance goal:
  - At least 1 school year with no more than 3 days of unexcused absences
- Demonstrate skill development in Communication, Collaboration, and Work Ethic
  - Externally verified through a mentorship experience with current military personnel, veterans, or other public safety professionals

HONORS PLUS SEAL

ENROLLMENT

Earn the Honors Enrollment Seal, **plus**:

- Earn a credential of value that may include, for example:
  - Associate degree;
  - Technical Certificate;
  - Indiana College Core;
  - AP Scholar with Distinction;
  - Cambridge AICE Diploma; or
  - IB Diploma
- Complete at least 75 hours of work-based learning (may include multiple experiences that are paid, unpaid, on-site, or simulated)
- Demonstrate skill development in the following areas: Communication, Collaboration, and Work Ethic

EMPLOYMENT

Earn the Honors Employment Seal, **plus**:

- Earn a market-driven credential of value that may include, for example:
  - Associate degree;
  - Technical Certificate;
  - Indiana College Core; or
  - Advanced industry certificate
- Complete additional work-based learning (total of 650 hours in one or more experiences) that may include, for example:
  - Pre-Apprenticeship
  - Modern Youth Apprenticeship
- Demonstrate skill development in Communication, Collaboration, Work Ethic, and any additional skills determined locally

ENLISTMENT & SERVICE

Earn the Honors Enlistment Seal, **plus**:

- Complete one of the following:
  - Achieve a score of 50 or higher on the ASVAB
  - Enrollment in ROTC at the collegiate level
  - Acceptance to a service academy
- Demonstrate excellence in leadership through one of the following:
  - Completion of at least 100 hours of public service;
  - Holding a leadership role in a co/extracurricular activity;
  - Completion of two seasons of a team-based physical sport or activity

Agriculture



Principles of Agriculture (7117): **Ivy Tech: Agri 100**

Length: 2 Semesters Credits: 2 High School ; 3 College Credits Grade: 9, 10, 11, 12

Principles of Agriculture exposes students to the diversity of career options found within the agricultural industry and to other agribusiness concepts. Students will develop an understanding of the role of agriculture in the United States and globally. Students will explore Agriculture, Food, and Natural Resource (AFNR) systems related to the production of food, fiber and fuel and the associated health, safety and environmental management systems. Topics covered in the course range from animals, plants, food, natural resources, ag power, structures and technology, and agribusiness. Participation in FFA and Supervised Agricultural Experiences (SAE) will be an integral part of this course in order to develop leadership and career ready skills.

Agriculture Power, Structure, & Technology (5088):

Length: 2 Semesters Credits: 2 Grade: 10, 11, 12

NLPS - Required Prerequisite(s)/Corequisite(s): Principles of Agriculture

Agriculture Power, Structure and Technology is a two semester course that is a lab-intensive course in which students develop an understanding of the basic principles of tool selection, operation, maintenance, and management of agricultural equipment in concert with the utilization of technology. Topics covered include: safety, problem-solving/troubleshooting, electricity, plumbing, concrete, carpentry, metal technology, engines, emerging technologies, leadership development, supervised agricultural experience, and career opportunities in the area of agriculture power, structure, and technology.

Agriculture Structures Fabrication and Design (7112):

Length: 2 Semesters Credits: 2 Grade: 10, 11, 12

NLPS - Required Prerequisite(s)/Corequisite(s): Principles of Agriculture

Recommended Prerequisite(s): Introduction to Agriculture, Food and Natural Resources

Agricultural Structures: Fabrication and Design is a two semester course that focuses on metal work and agricultural structures. This course allows students to develop skills in welding and metalworking, construction, fabrication, machine components and design while incorporating the engineering design process. Students will also cover safety topics for each area while demonstrating appropriate health and safety standards.

Animal Science (5008): **Ivy Tech AGRI 103**

****This class is offered every other year - next offering '27-'28****

NLPS - Required Prerequisite(s)/Corequisite(s): Principles of Agriculture

Length: 2 Semesters Credits: 2 High School ; 3 College Credits Grade: 10, 11, 12

Animal Science is a two semester course that provides students with an overview of the animal agriculture industry. Students participate in a variety of activities and laboratory work including real and simulated animal science experiences and projects. Topics to be covered 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 animals and human safety, nutrition, reproduction, careers, leadership, and supervised agricultural experiences relating to animal agriculture.

Agriculture Continued

Plant and Soil Science (5170): Ivy Tech AGRI 105

****This class is offered every other year - next offering '28-'29****

NLPS - Required Prerequisite(s)/Corequisite(s): Principles of Agriculture

Length: 2 Semesters Credits: 2 High School ; 3 College Credits Grade: 10, 11, 12

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

Advanced Life Science: Animals (5070): Ivy Tech AGRI 107

****This class is offered every other year - next offering '28-'29****

Length: 2 Semesters Credits: 2 High School ; 3 College Credits Grade: 10, 11, 12

NLPS - Required Prerequisite(s)/Corequisite(s): Principles of Agriculture

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

Advanced Life Science: Plant and Soil (5074) Ivy Tech AGRI 109

****This class is offered every other year - next offering '27-'28****

Length: Year Credits: 2 High School ; 3 College Credits Grade: 10, 11, 12

Advanced Life Science: Plants and Soils is a two semester course that provides students with opportunities to participate in a variety of activities including laboratory work. Students study concepts, principles, and theories associated with plants and soils. Knowledge gained enables them to better understand the workings of agricultural and horticultural practices. They recognize how plants are classified, grow, function, and reproduce. Students explore plant genetics and the use of plants by humans. They examine plant evolution and the role of plants in ecology. Students investigate, through laboratories and fieldwork, how plants function and how soil influences plant life.

Supervised Agricultural Experience (Summers Only)

Length: Summer session Credits: 1 Grade: 9, 10, 11, 12

Supervised Agricultural Experience (SAE) is designed to provide students with opportunities to gain experience in the agriculture field(s) in which they are interested. Students will experience and apply what is learned in the classroom, laboratory and training site to real-life situations with a standards-based plan for learning. Students work closely with their agriculture teacher(s), parents and/or employers to get the most out of their SAE program. Students must complete 80 hours of an agricultural experience to achieve credit.

Business



Business Math (4512)

Length: 2 Semesters Credits: 2 Grade: 10, 11, 12

Required Prerequisite: Algebra 1

*Qualifies as Quantitative Reasoning course and Math credit for General Diploma only

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

Principles of Business Management (4562)

Length: 2 Semesters Credits: 2 Grades: 9, 10, 11, 12

Principles of Business Management examines business ownership, organization principles and problems, management, control facilities, administration, financial management, and development practices of business enterprises. This course will also emphasize the identification and practice of the appropriate use of technology to communicate and solve business problems and aid in decision making. Attention will be given to developing business communication, problem-solving, and decision-making skills using spreadsheets, word processing, data management, and presentation software.

Personal Financial Responsibility (4540)

Length: 1 Semester Credits: 1 Grades: 9, 10, 11, 12

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

Personal Finance and Banking (7150)

Length: 2 Semesters Credits: 2 Grade: 10, 11, 12

****This class is offered every other year - next offering '28-'29****

Required Prerequisite(s)/Corequisite(s): Principles of Business Management

Personal Finance and Banking emphasizes management of individual financial resources for growth and maintenance of personal wealth. Covers home buying and mortgage financing, installment financing, life and health insurance, securities, commodities and other investment opportunities. Students will gain an overview of the banking industry and the financial services provided by banks for individuals and businesses.

Business Continued

Finance and Investment (5258)

Length: 2 Semesters Credits: 2 Grade: 10, 11, 12

****This class is offered every other year - next offering '27-'28****

Required Prerequisite(s): Principles of Business Management, Personal Finance and Banking or Accounting Fundamentals

Finance and Investment addresses the need of schools in areas that have workforce demand in the finance industry. It analyzes and synthesizes high-level skills needed for a multitude of careers in the banking and investment industry. Students learn banking, investments, and other finance fundamentals and applications related to financial institutions, business and personal financial services, investment and securities, risk management products, and corporate finance

Engineering and Technology

PLTW Intro to Engineering Design (4802)

Length: 2 Semesters Credits: 2 Grade: 9, 10, 11, 12

Introduction to Engineering Design is a fundamental pre-engineering course where students become familiar with the engineering design process. Students work both individually and in teams to design solutions to a variety of problems using industry standard sketches and current 3D design and modeling software to represent and communicate solutions. Students apply their knowledge through hands-on projects and document their work with the use of an engineering notebook. Students 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.

PLTW Principles of Engineering (5644)

Length: 2 Semesters Credits: 2 Grade: 10, 11, 12

Required Prerequisite(s)/Corequisite(s): Must have completed PLTW Introduction to Engineering and 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. Schools may use the PLTW curriculum to meet the standards for this course.

Engineering and Technology Continued

PLTW Computer Integrated Manufacturing (5534)

Length: 2 Semester Credits: 2 Grade: 10, 11, 12

Required prerequisite: Must have completed PLTW Introduction to Engineering and Design and PLTW Principles of Engineering

Computer Integrated Manufacturing is a course that applies principles of rapid prototyping, robotics, and automation. This course builds upon the computer solid modeling skills developed in Introduction of Engineering Design. Students will use computer controlled rapid prototyping and CNC equipment to solve problems by constructing actual models of their three-dimensional designs. Students will also be introduced to the fundamentals of robotics and how this equipment is used in an automated manufacturing environment. Students will evaluate their design solutions using various techniques of analysis and make appropriate modifications before producing their prototypes.

Robotics Design and Innovation (4728)

****Will not be offered in 2027-2028****

Length: 2 Semesters Credits: 2 Grade: 9, 10, 11, 12

Robotics Design and Innovation is a course that introduces students to technological innovations that are revolutionizing modern manufacturing and logistic centers across global markets. Students will explore careers that are related to the fourth industrial revolution and will be introduced to the emerging technologies that make the manufacturing world ever changing. These technologies include: mechatronics, CAD/CAM, robots, programmable automation, cloud technologies, networking, and big data analytics. Students will design a part to be mass-produced using a process such as additive and subtractive manufacturing, while utilizing lean manufacturing concepts. The course will prepare students for the SACA, C-102 Certified Industry 4.0 Associate.

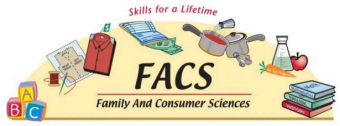
Computing Foundations of a Digital Age (4565)

Length: 1 Semester Credits: 1 Grade: 8, 9, 10, 11, 12

Computers and the internet have revolutionized the way we access and disseminate information. As technology continues to change at an ever-increasing pace, the need for students to gain a foundational understanding of computer science is clear. Computing Foundations for a Digital Age is designed to introduce students to five major topics within computer science including computing systems, networks and the internet, data and analysis, algorithms and planning, and impacts of computing. The course introduces foundational computing concepts while exploring current events and building critical thinking, collaboration, problem solving, and other important skills that are invaluable for life in a global and technologically advancing society.

**Triton students take this class during their 8th Grade Year; however, if they do not pass, they will retake the course until they pass it.

Family & Consumer Science



Adult Roles & Responsibilities (5330)

Length: 1 Semester Credits: 1 Grade: 9, 10, 11, 12

Adult Roles and Responsibilities is recommended for all students as life foundations and academic enrichment, and as a career sequence course for students with an interest in family and community services, personal and family finance, and similar areas. This course builds knowledge, skills, attitudes, and behaviors that students will need as they complete high school and prepare to take the next steps toward adulthood in today's society. The course includes the study of interpersonal standards, lifespan roles and responsibilities, individual and family resource management, and financial responsibility and resources. A project-based approach that utilizes higher order thinking, communication, leadership, management processes, and fundamentals to college and career success is recommended in order to integrate these topics into the study of adult roles and responsibilities. Direct, concrete mathematics and language arts proficiencies will be applied. Service learning and other authentic applications are strongly recommended. This course provides the foundation for continuing and post-secondary education in all career areas related to individual and family life.

Interpersonal Relationships (5364)

Length: 1 Semester Credits: 1 Grade: 9, 10, 11, 12

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

Nutrition & Wellness (5342)

Length: 1 Semester Credits: 1 Grade: 9, 10, 11, 12

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

Family and Consumer Sciences Continued

Advanced Nutrition & Wellness (5340)

Length: 1 Semester Credits: 1 Grade: 9, 10, 11, 12

Recommended prerequisite*:* Nutrition and Wellness*.*

Advanced Nutrition and Wellness is a course which provides an extensive study of nutrition. This course is recommended for all students wanting to improve their nutrition and learn how nutrition affects the body across the lifespan. *Advanced Nutrition and Wellness* is an especially appropriate course for students interested in careers in the medical field, athletic training and dietetics. This course builds on the foundation established in *Nutrition and Wellness*, which is a required prerequisite. This is a project-based course; utilizing higher-order thinking, communication, leadership and management processes. Topics include extensive study of major nutrients, nutritional standards across the lifespan, and influences on nutrition/food choices, technological and scientific influences, and career exploration in this field. Laboratory experiences will be utilized to develop food handling and preparation skills; attention will be given to nutrition, food safety and sanitation. This course is the second in a sequence of courses that provide a foundation for continuing and post-secondary education in all career areas related to nutrition, food, and wellness.

Preparing for College & Careers (5394)

Length: 1 Semester Credits: 1 Grade: 8, 9, 10, 11, 12

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

**Triton students take this class during their 8th Grade Year; however, if they do not pass, they will retake the course until they pass it.

Principles of Fashion and Textiles (7301)

Length: 2 Semesters Credits: 2 Grade: 9, 10, 11, 12

Principles of Fashion and Textiles prepares students for occupations and higher education programs of study related to the entire spectrum of careers in the fashion industry. This course builds a foundation that prepares students for all aspects of the fashion creation process. Major topics include: Basic clothing construction techniques, pattern alterations, and use of commercial patterns.

Fine Arts



Advanced Concert Band (4170)

Length: 2 Semesters Credits: 2 Grades: 9, 10, 11, 12

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

Advanced Chorus (4188)

Length: 2 Semesters Credits: 2 Grades: 9, 10, 11, 12

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

Introduction to Two-Dimensional Art (4000)

Length: 1 Semester Credits: 1 Grade: 9, 10, 11, 12

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.

Fine Arts Continued

Introduction to Three-Dimensional Art (4002)

Length: 1 Semester Credits: 1 Grade: 9, 10, 11, 12

Recommended Prerequisite(s): Introduction to Two-Dimensional 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.

Advanced Two-Dimensional Art (4004)

Length: 1 Semester Credits: 1 Grade: 10, 11, 12

Required Prerequisite(s): Must have taken Introduction to Two-Dimensional Art and Introduction to Three-Dimensional 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.

Advanced 3D Art (4006)

Length: 1 Semester Credits: 1 Grades: 10, 11, 12

Required Prerequisite(s): Must have taken Introduction to Two-Dimensional Art, Introduction to Three-Dimensional Art, and Advanced Two-Dimensional 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 ThreeDimensional 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.

Art History (4024)

Length: 1 Semster Credits: 1 Grade: 9, 10, 11, 12

Recommended Prerequisite(s): Introduction to Two-Dimensional Art, Introduction to Three-Dimensional Art

Art History is a course based on the Indiana Academic Standards for Visual Art. Students taking Art History engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production. Students study works of art and artifacts from world cultures, engage in historically relevant studio activities; utilize research skills to discover social, political, economic, technological, environmental, and historical trends and 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.

Fine Arts Continued

Ceramics (4040)

Length: 1 Semester Credits: 1 Grade: 9, 10, 11, 12

Recommended Prerequisite(s): Introduction to Two-Dimensional Art, Introduction to Three-Dimensional Art

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

Drawing (4060)

Length: 1 Semester Credits: 1 Grade: 9, 10, 11, 12

Recommended Prerequisite(s): Introduction to Two-Dimensional Art, Introduction to Three-Dimensional Art

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

Painting (4064)

Length: 1 Semester Credits: 1 Grade: 9, 10, 11, 12

Recommended Prerequisite(s): Introduction to Two-Dimensional Art, Introduction to Three-Dimensional Art

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

Visual Communications - Yearbook (4086)

Length: 2 Semesters Credits: 2 Grade: 9, 10, 11, 12

Visual Communication is a course where students work together to create the school yearbook. Students are responsible for the planning, creation, marketing and sales of the book. They create print media utilizing graphic design, typography, illustration, photography and image creation with digital tools and computer technology. This course requires an application and selection process. Students must be willing to be involved in all aspects of yearbook production: advertising, sales, photography, page design and layout as well as be able to meet deadlines and work closely with others. Spending time outside of class photographing after school events is a requirement of this course. The nature of this course allows for successive semesters of instruction at an advanced level.

Language Arts



English 9 (1002)

Length: 2 Semesters Credits: 2 Grade: 9

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

English 9 Honors (1002H)

Length: 2 Semesters Credits: 2 Grade: 9

Prerequisite: Students classified as high ability or who are college bound are encouraged to enroll in this course. Interested students must pass the ILEARN English Language Arts portion of the test prior to enrollment. Students must have achieved a B+ or higher in English 8 as a prerequisite. Students scoring below these standards will need to secure a waiver for entry.

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

English 10 (1004)

Length: 2 Semesters Credits: 2 Grade: 10

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

Language Arts Continued

English 10 Honors (1004H)

Length: 2 Semesters Credits: 2 Grade: 10

Prerequisite: Students classified as high ability or who are college bound are encouraged to enroll in this course. Interested students must have achieved a B- or higher in Honors English 9 or a B+ or higher in regular English 9 as a prerequisite. Students scoring below these standards will need to secure a waiver for entry.

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

English 11 (1006)

Length: 1 Semester Credits: 1 Grade: 11

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

Speech (1076)

Length: 1 Semester Credits: 1 Grade: 10, 11

Speech, a course based on the Indiana Academic Standards for English/Language Arts, is the study and application of the basic principles and techniques of effective oral communication. Students deliver focused and coherent speeches that convey clear messages, using gestures, tone, and vocabulary appropriate to the audience and purpose. Students deliver different types of oral and multimedia presentations, including viewpoint, instructional, demonstration, informative, persuasive, and impromptu. Students use the same Standard English conventions for oral speech that they use in their writing.

English 11 Honors (1006 HA): Ivy Tech ENGL 111

Length: 1 Semester (Fall) Credits: 1 High School ; 3 College Credits Grade: 11, 12 (‘26-’27)

Prerequisite: Students classified as high ability or who are college bound are encouraged to enroll in this college-level course. Students must have achieved a B- or higher in Honors English 10 or a B+ or higher in regular English 10 as a prerequisite. Must achieve required scores on either the ACCUPLACER, PSAT, or SAT/ACT in order to receive dual credit. Students scoring below these standards will need to secure a waiver for entry.

Ivy ENGL 111 is designed to develop students’ abilities to think, organize, and express their ideas clearly and effectively in writing. This course incorporates reading, research, and critical thinking. Emphasis is placed on the various forms of expository writing such as process, description, narration, comparison, analysis, persuasion, and argumentation. A research paper is required. Numerous in-class writing activities are required in addition to extended essays written outside of class.

Language Arts Continued

English 11 Honors (1078H) Advanced Speech and Communication: Ivy Tech COMM 101

Length: 1 Semester Credits: 1 High School ; 3 College Credits Grade: 11

Prerequisite: Students classified as high ability or who are college bound are encouraged to enroll in this course. Must achieve required scores on either SAT/ACT, PSAT, ACCUPLACER or qualify for GPA waiver in order to receive dual credit.

Ivy Tech COMM 101 introduces fundamental concepts and skills for effective public speaking, including audience analysis, outlining, research, delivery, critical listening and evaluation, presentational aids, and use of appropriate technology.

Adv Eng 12 CC A (1008 HA): Ivy Tech ENGL 206

Length: 1 Semester Credits: 1 High School; 3 College Credits Grade: 12

Prerequisite: ENGL 111 - English Composition. Students classified as high ability or who are college bound are encouraged to enroll in this course.

Ivy Tech ENGL 206 focuses on the 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.

English 12 Honors: Ivy Tech ENGL 215

Length: 1 Semester Credits: 1 High School ; 3 College Credits Grade: 12

Prerequisite: A grade of a "C" or better in ENGL 111. Students classified as high ability or who are college bound are encouraged to enroll in this course. Must have completed ENGL 111 with a C- or higher to be eligible for dual credit. Must achieve required scores on either SAT/ACT, PSAT, or ACCUPLACER in order to receive dual credit.

Ivy Tech ENGL 215 builds on the writing skills taught in ENGL 111 and emphasizes research-based analytic and argumentative writing. Designed to develop students' abilities to think, organize, and express their ideas clearly and effectively in writing. This course incorporates reading, research, and critical thinking. Emphasis is placed on the various forms of expository writing such as process, description, narration, comparison, analysis, persuasion and argumentation. A research paper is required. Numerous in-class writing activities are required in addition to extended essays written outside of class.

English 12 (1008)

Length: 2 Semesters Credits: 2 Grade: 12

English 12, an integrated English course based on Indiana's Academic Standards for English/Language Arts for Grade 12, is a study of language, literature, composition, and oral communication focusing on an exploration of point of view or perspective across a wide variety of genres. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to representative works of historical or cultural significance for Grade 12 in classic and contemporary literature balanced with nonfiction. Students write and deliver grade-appropriate multimedia presentations and access, analyze, and evaluate online information.

Creative Writing (1092)

Length: 1 Semester Credits: 1 Grade: 9, 10, 11, 12

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

Language Arts Continued

Themes in Literature (1048)

Length: 1 Semester Credits: 1 Grade: 9, 10, 11, 12

Themes in Literature, a course based on the Indiana Academic Standards for English/Language Arts, is a study of universal themes, such as the journey of the hero, the trials of youth, the search for identity, and other themes appropriate to the level and interests of students. The course may be limited to a few important related themes. Students examine representative works in various genres by authors of different eras and nationalities and the way themes may be treated because of the cultural context. Students analyze how themes illuminate humanity's struggle to understand the human condition. The course can be offered in conjunction with a composition course, or schools should embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

Mathematics



Algebra I (2520)

Length: 2 Semesters Credits: 2 Grade: 9, 10, 11, 12

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

Geometry (2532)

Length: 2 Semesters Credits: 2 Grades: 9, 10, 11, 12

Geometry formalizes and extends students' geometric experiences from the middle grades. Students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. The Indiana Academic Standards for Geometry consist of five domains: Geometry Foundations, Triangles, Quadrilaterals and Other Polygons, Circles, and Transformations & Three-Dimensional Solids. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

Geometry Honors (2532 H)

Length: 2 Semesters Credits: 2 Grade: 9, 10

Prerequisite: Students classified as high ability or who are college bound are encouraged to enroll in this course. Students must have taken Algebra I Honors and received a B- or higher or Algebra I with an A. If they do not meet these requirements, they must sign a waiver for entry.

The *Honors Geometry* class is designed for students who excel in mathematics. Students are expected to investigate theorems and postulates, develop spatial reasoning skills, and challenge their way of thinking. The curriculum will include writing theoretical proofs, constructing geometric figures, and exploring mathematical concepts through the use of technology. Since technology will be used on a daily basis a TI-84 Plus calculator is required. The course will offer a glimpse into computer programming. Students will write and execute simple geometric formulas as calculator programs. The pace of the instruction will be held to an honors standard. Expect homework and assessments to be more rigorous than the regular Geometry class. Every student must complete an exit project to receive credit. A PowerPoint or Muvee will be created by each student to incorporate Geometry's SketchPad diagrams with real-life pictures of Geometry in motion.

Mathematics Continued

Algebra II (2522)

Length: Year Credits: 2 Grade: 10, 11, 12

Prerequisite: Must have passed Algebra I and Geometry.

Algebra II builds on work with linear, quadratic, and exponential functions and allows for students to extend their repertoire of functions to include polynomial, rational, and radical functions. Students work closely with the expressions that define the functions and continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. The Indiana Academic Standards for Algebra II consist of six domains: Arithmetic and Structure of Expressions, Equations, and Functions; Function Families; Modeling with Functions and Data; Modeling with Advanced Algebra; Modeling with Data and Statistics; and Modeling with Quantities. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations

Analytical Algebra II (2524)

Length: Year Credits: 2 Grade: 11, 12

Analytical Algebra II builds on previous work with linear, quadratic and exponential functions and extends to include polynomial, rational, and radical functions. Data analysis, statistics, and probability content should be included throughout the course, as students collect and use univariate and bivariate data to create and interpret mathematical models. The Indiana Academic Standards for Analytical Algebra II consist of six domains: Arithmetic and Structure of Expressions, Equations, and Functions; Function Families; Modeling with Functions and Data; Modeling with Advanced Algebra; Modeling with Data and Statistics; and Modeling with Quantities. Additionally, Analytical Algebra II should focus on the application of mathematics in various disciplines including business, finance, science, CTE, and social sciences using technology to model real-world problems with various functions, using and translating between multiple representations. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. The essential standards for Analytical Algebra II are different from those noted for Algebra II, which may support students in a variety of STEM-related and non-STEM post-secondary pursuits.This course is not recommended for students interested in pursuing a STEM degree at a four year institution; this course does not prepare students for PreCalculus/Trigonometry *Requires consent form with student and parent signatures

Algebra II Honors (2522H)

Length: Year Credits: 2 Grade: 10, 11, 12

Prerequisite: Students classified as high ability or who are college bound are encouraged to enroll in this course. Students must have received a B- or higher in Geometry for entry. Students scoring below these standards will need to secure a waiver for entry.

Honors Algebra II is a course designed for students who excel in mathematics that extends the content of Algebra I and provides further development of the concept of a function. Topics include: (1) relations, functions, equations and inequalities; (2) conic sections; (3) polynomials; (4) algebraic fractions; (5) logarithmic and exponential functions; (6) sequences and series; and (7) counting principles and probability. The pace of the instruction will be held to an honors standard. Expect homework and assessments to be more rigorous than the regular Geometry class. Every student must complete an exit project to receive credit.

Mathematics Continued

Quantitative Reasoning (2550)

Length: 2 Semesters Credits: 2 Grade: 11, 12

Prerequisite: Must have passed Algebra I, Geometry, and Algebra II

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

Pre-Calculus (2564)

Length: 1 Semester Credits: 1 Grade: 11, 12

Prerequisite: Must have passed Algebra I, Geometry, and Algebra II

Pre-Calculus extends the foundations of algebra and functions developed in previous courses to new functions, including exponential and logarithmic functions, and to higher-level sequences and series. The course provides students with the skills and understandings that are necessary for advanced manipulation of angles and measurement.

Pre-Calculus Honors (2564H) – Ivy Tech MATH 136

Length: 1 Semester Credits: 1; 3 College Credits Grade: 11, 12

Prerequisite: Completion of Algebra II with a C- or higher or teacher recommendation. If they do not meet these requirements, they must sign a waiver for entry. Must achieve required scores on either SAT/ACT, PSAT, or ACCUPLACER in order to receive dual credit.

Ivy 136 extends the foundations of algebra and functions developed in previous courses to new functions, including exponential and logarithmic functions, and to higher-level sequences and series. The course provides students with the skills and understandings that are necessary for advanced manipulation of angles and measurement.

Trigonometry (2566)

Length: 1 Semester Credits: 1 Grade: 11, 12

Prerequisite: C- or above in Algebra II

Trigonometry provides students with the skills and understandings that are necessary for advanced manipulation of angles and measurement. Trigonometry provides the foundation for common periodic functions that are encountered in many disciplines, including music, engineering, medicine, and finance (and nearly all other STEM disciplines). Students will also advance their understanding of imaginary numbers through an investigation of complex numbers and polar coordinates. A strong understanding of complex and imaginary numbers is a necessity for fields such as engineering and computer science.

Mathematics Continued

Trigonometry Honors (2566 H) – Ivy Tech MATH 137

Length: 1 Semester Credits: 1; 3 College Credits Grade: 11, 12

Prerequisite: Completion of Algebra II with a C- or higher or teacher recommendation. If they do not meet these requirements, they must sign a waiver for entry. Must achieve required scores on either SAT/ACT, PSAT, or ACCUPLACER in order to receive dual credit.

Ivy 137 is a one-credit course which provides students with the skills and understandings that are necessary for advanced manipulation of angles and measurement. Students will also advance their understanding of imaginary numbers through an investigation of complex numbers and polar coordinates. The course is designed for students who expect math to be a major component of their future college and career experiences, and as such it is designed to provide students with strong foundations for calculus and other higher-level math courses.

AP Calculus (2562) - Ivy Tech MATH 211

Length: 2 Semesters Credits: 2 ; 4 College Credits Grade: 12

Prerequisite: Completion of Pre-Calculus with a C- or higher or teacher recommendation. If they do not meet these requirements, they must sign a waiver for entry. Must achieve required scores on either SAT/ACT, PSAT, or ACCUPLACER in order to receive dual credit.

Calculus, Advanced Placement is a course based on content established by the College Board. AP Calculus is primarily concerned with developing the students' understanding of the concepts of calculus and providing experience with its methods and applications. The course emphasizes a multi-representational approach to calculus, with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. The connections among these representations also are important. Topics include: (1) functions, graphs, and limits; (2) derivatives; and (3) integrals. Technology should be used regularly by students and teachers to reinforce the relationships among the multiple representations of functions, to confirm written work, to implement experimentation, and to assist in interpreting results.

Physical Education & Health

Physical Education I (3542)

Length: 1 Semester Credits: 1 Grade: 9

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

Physical Education II (3544)

****This class will no longer be required after the Class of 2028****

Length: 1 Semester Credits: 1 Grade: 9

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

Health & Wellness Education (3506)

Length: 1 Semester Credits: 1 Grade: 9, 10

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

Elective Physical Education: Advanced PE (3560A)

****This class will not be offered in 2027-2028****

Length: 1 Semester Credits: 1 Grade: 10, 11, 12

Advanced Physical Education promotes lifetime sport and recreational activities and provides an opportunity for an in-depth study in specific areas. A minimum of two of the following activities should be included: (1) health-related fitness activities (cardio respiratory endurance, muscular strength and endurance, flexibility and body composition), (2) team sports, (3) individual or dual sports, (4) aquatics and, (5) outdoor pursuits. It includes the study of physical development concepts and principles of sport and exercise as well as opportunities to develop or refine skills and attitudes that promote lifelong fitness. Students have the opportunity to design and develop an appropriate personal fitness program that enables them to achieve a desired level of fitness. Ongoing assessment includes both written and performance-based skill evaluation.

Advanced P.E. is a continuation of Physical Education I and II with special emphasis given to more advanced skills and techniques in each of the activities. Approved uniforms are required.

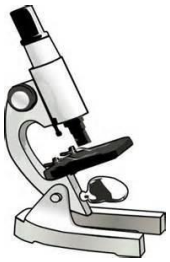
Elective Physical Education: Weightlifting (3560W)

Length: 1 Semester Credits: 1 Grade: 10, 11, 12

Weightlifting/Conditioning is designed to provide students with the opportunity to develop their muscular strength and body explosiveness. Strength development will be achieved through consistent and rigid lifting routines. Body explosiveness will be achieved through plyometric training and instruction on non-lifting days. Students will lift three days-a-week. Due to the nature of the course, students MUST participate daily, and keep good records of their exercises in their notebooks. The students will also be instructed in skeletal muscle anatomy, their functions, proper stretching, and form running.

-Classes are coeducational unless the activity involves bodily contact or groupings are based on an objective standard of individual performance developed and applied without regard to gender -A maximum of six credits can be earned between Advanced PE and Weightlifting combined provided that there is no course or skill level duplication.

Science



Biology I (3024) -

Length: 2 Semesters Credits: 2 Grade: 9, 10

Biology I is a course that incorporates Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts to help students gain a three dimensional understanding of Biology topics. Disciplinary Core Ideas for this course include From Molecules to Organisms, Ecosystems, Heredity and Biological Evolution. Instruction focuses on the observation of phenomena to develop an understanding of how scientific knowledge is acquired.

Biology I Honors (3024 H)

****Not offered in 2027-2028****

Length: 2 Semesters Credits: 2 Grade: 9, 10

Prerequisite: Students classified as high ability are encouraged to enroll in this course. Application is required and must be approved by the instructor.

Biology I Honors is designed to cover Common Core Standards and all of the Indiana State Biology Standards with a more in-depth approach to concepts and processes. Honors Biology will provide a more rigorous pace combined with small group projects, simulations and inquiry-based labs that will enhance biological understanding and allow for a more in-depth research on an individual basis.

Environmental Science (3010)

Length: 2 Semesters Credits: 2 Grade: 9, 10, 11, 12

Environmental Science is an interdisciplinary course that integrates biology, earth science, chemistry, and other disciplines. Students enrolled in this course integrate Disciplinary Core Ideas, 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.

Earth/Space Science I (3044)

Length: 2 Semesters Credits: 2 Grade: 9, 10, 11, 12

Earth and Space Science I is a course that incorporates high school Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts to help students gain a three dimensional understanding of Earth and Space Science topics. Disciplinary Core Ideas for this course include Earth's Place in the Universe, Earth's Systems, and Human Interaction with Earth's Systems. Instruction focuses on the observation of phenomena to develop an understanding of how scientific knowledge is acquired.

Science Continued

Earth Space Science II (3046): Ivy Tech SCIN 100

****Not offered in 2027-2028****

Length: 2 Semesters Credits: 2 Grade: 10, 11, 12

Earth and Space Science II is an extended laboratory, field, and literature investigations-based course whereby students apply concepts from other scientific disciplines in synthesizing theoretical models of earth and its interactions with the macrocosm. Students enrolled in this course examine various earth and space science phenomena, such as the structure, composition, and interconnected systems of earth and the various processes that shape it, as well as earth's lithosphere, atmosphere, hydrosphere, and celestial environment. Students analyze and apply the unifying themes of earth and space science as part of scientific inquiry aimed at investigating earth and space science problems related to personal needs and community issues.

PLTW Principles of Biomedical Science –PBS (year 1) (5218)

Length: 2 Semesters Credits: 2 Grade: 9, 10, 11

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

NOTE: This course aligns with the PLTW Principles of Biomedical Sciences curriculum. Use of the PLTW Curriculum may require additional training and membership in the PLTW network.

PLTW Human Body Systems- HBS (year 2) (5216)

Length: 2 Semesters Credits: 2 Grade: 10, 11, 12

Prerequisite/Corequisite: PLTW Principles of Biomedical Science

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

NOTE: This course aligns with the PLTW Human Body Systems curriculum. Use of the PLTW Curriculum may require additional training and membership in the PLTW network.

PLTW Medical Interventions - (Year 3) (5217)

Length: 2 Semesters Credits: 2 Grade: 10, 11, 12

Required Prerequisites/Corequisites: Principles of Biomedical Science and 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.

NOTE: This course aligns with the PLTW Medical Interventions curriculum. Use of the PLTW Curriculum may require additional training and membership in the PLTW network.

Science Continued

Integrated Chemistry-Physics (3108)

Length: 2 Semesters Credits: 2 Grade: 8 (Honors Science), 10, 11, 12

Integrated Chemistry-Physics incorporates Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts to help students gain a three dimensional understanding of Chemistry and Physics topics. Disciplinary Core Ideas for this course include Matter and its Interactions, Forces, Energy, and Waves and their Applications in Technologies for Information Transfer. Instruction focuses on the observation of phenomena to develop an understanding of how scientific knowledge is acquired.

Chemistry I 3064)

Length: 2 Semesters Credits: 2 Grade: 10, 11, 12

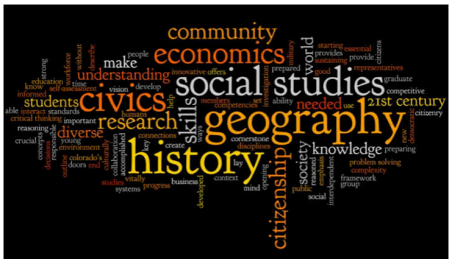
Chemistry I incorporates Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts to help students gain a three dimensional understanding of Chemistry topics. Disciplinary Core Ideas for this course include Matter and its Interactions and Energy. Instruction focuses on the observation of phenomena to develop an understanding of how scientific knowledge is acquired.

Physics I (3084)

Length: 2 Semesters Credits: 2 Grade: 11, 12

Physics I is a course focused on the following core topics: motion and forces; energy and momentum; temperature and thermal energy transfer; electricity and magnetism; vibrations and waves; light and optics. 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.

Social Studies



Geography and History of the World (1570)

Length: 2 Semesters Credits: 2 Grade: 9, 10, 11, 12

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

Social Studies Continued

World History and Civilization 1548)

Length: 2 Semesters Credits: 2 Grade: 9, 10,11,12

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 skills and processes of historical thinking and research and apply content knowledge to the practice of thinking and inquiry skills and processes.

United States History (1542)

Length: 2 Semesters Credits: 2 Grade: 10, 11

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

United States History Honors (1542 H): Ivy Tech HIST 101 & HIST 102

Length: 2 Credits: 2 High School ; 3 per Semester College Credit - 6 total Grade: 11

Prerequisite: Students classified as high ability or who are college bound are encouraged to enroll in this course. Must have B- or above in World History to enroll.

United States History builds upon concepts developed in previous studies of U.S. History. 1st Semester: HIST 101 covers major themes and events in American history from domestic and global standpoints, including exploration of the New World; the colonial period; causes and results of the American Revolution; the development of the federal system of government; the growth of democracy; early popular American culture; territorial expansion; slavery and its effect; reform movements, sectionalism; causes and effects of the Civil War. 2nd Semester: HIST 102 covers major themes including the post Civil War period, western expansion, industrial growth of the nation and its effects, immigration and urban discontent and attempts at reform, World War I, the Roaring Twenties, social and governmental changes of the thirties, World War II and its consequences, the growth of the federal government, social upheaval in the sixties and seventies, and recent trends in conservatism, globalization, and cultural diversity.

Economics (1514)

Length: 1 Semester Credits: 1 Grade: 12

*Qualifies as a Quantitative Reasoning course.

Economics examines the allocation of resources and their uses for satisfying human needs and wants. The course analyzes economic reasoning used by consumers, producers, savers, investors, workers, voters, and government in making decisions. Key elements of the course include the study of scarcity and economic reasoning, supply and demand, market structures, role of government, national income determination, the role of financial institutions, economic stabilization, and trade. Students will explain that because resources are limited, people must make choices and understand the role that supply, demand, prices, and profits play in a market economy. The functions of government in a market economy and market structures will be examined. Students will understand economic performance, money, stabilization policies, and trade of the United States. The behavior of people, societies and institutions and economic thinking is integral to this course.

Social Studies Continued

United States Government (1540)

Length: 1 Semester Credits: 1 Grade: 12

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

US Government Honors (1540 H): Ivy Tech POLS 101

Length: 1 Semester Credits: 1 High School ; 3 College Credits Grade: 12

Prerequisite: Students classified as high ability or who are college bound are encouraged to enroll in this course.

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

Indiana Studies (1518)

Length: 1 Semester Credits: 1 Grade: 9, 10, 11, 12

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

Current Problems, Issues, and Events (1512)

****Not offered in 2027-2028****

Length: 1 Semester Credits: 1 Grade: 9, 10, 11, 12

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

World Language



Spanish I (2120)

Length: 2 Semesters Credits: 2 Grade: 9, 10, 11, 12

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

Spanish II (2122)

Length: 2 Semesters Credits: 2 Grade: 9, 10, 11, 12

Prerequisite: Must have successfully completed Spanish I.

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

Spanish III (2124)

****Not offered in 2027-2028****

Prerequisite: Must have successfully completed Spanish II with a C- or above.

Length: 2 Semesters Credits: 2 Grade: 10, 11, 12

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

World Language Continued

Spanish IV (2126)

****Not offered in 2027-2028****

Length: Year Credits: 2 Grade: 12

Prerequisite: Must have successfully completed Spanish III with a C- or above and have teacher permission.

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

Career and Technical Education Programs
NLPS (Next Level Programs of Study) - Vocational/Occupational Courses

Applied Engineering: Industry 4.0 - Smart Manufacturing

Principles of Industry 4.0 and Digital Manufacturing (7220): Ivy Tech SMDI 110

Length: 2 Semesters Credits: 2 HS, 3 College Credits Grade: 10 (for selected students), 11, 12

Principles of Industry 4.0 introduces students to the Industrial Internet of Things (IIoT). Students will explore Industry 4.0 technologies such as artificial intelligence (AI), human-to-robot collaboration, big data, safety, electrical, sensors, digital integration, fluid power, robot operation, measurement, CAD, CNC, additive manufacturing, print reading, and technical mathematics. Students will complete hands-on labs, virtual simulations, projects, and critical thinking assignments to help prepare for SACA C-101 Certified Industry 4.0 Associate I - Basic Operations Certification Exam.

Robotics Design and Innovation (4728): Ivy Tech SMDI 111

Length: 2 Semesters Credits: 2 HS, 3 College Credits Grade: 10 (for selected students), 11, 12

The *Robotics Design and Innovation* course introduces students to technological innovations that are revolutionizing modern manufacturing and logistic centers across global markets. Students will explore careers that are related to the fourth industrial revolution and will be introduced to the emerging technologies that make the manufacturing world ever changing. These technologies include: mechatronics, CAD/CAM, robots, programmable automation, cloud technologies, networking, and big data analytics. Students will design a part to be mass-produced using a process such as additive and subtractive manufacturing, while utilizing lean manufacturing concepts. The course will prepare students for the SACA, C-102 Certified Industry 4.0 Associate.

Career and Technical Education Programs Continued

Smart (Digital) Manufacturing Systems (7100): Ivy Tech SMDI 130; INDT 205

Length: 2 Semesters Credits: 2 HS, 6 College Credits Grade: 10 (for selected students), 11, 12

Smart Manufacturing Systems focuses on the electrical system that supports the Industry 4.0 manufacturing system and building on skills learned in Principles of Industry 4.0 and Robotics Design and Innovation. Topics include Industry 4.0 technologies such as data analytics, cyber security, and smart sensors. Basic theory, operation, and programming of Programmable Logic Controllers (PLC) will be emphasized in this course along with how automation devices may be integrated with other machines. Students will work on a 4-6 student team to build a working prototype of an Industry 4.0 system. Highlights include: variable-frequency drives, Programming Logic Controller (PLC) troubleshooting, cyber security, smart sensors, and smart network communications.

Introduction to Engineering and Design (4802): Ivy Tech DESN 101; Possibly: DESN 113, DESN 104, DESN 195, DESN 220

Length: 2 Semesters Credits: 2 HS, 3 College Credits; Possibly 15 for '27-'28 Grade: 10 (for selected students), 11, 12

Introduction to Engineering Design is a fundamental pre-engineering course where students become familiar with the engineering design process. Students work both individually and in teams to design solutions to a variety of problems using industry standard sketches and current 3D design and modeling software to represent and communicate solutions. Students apply their knowledge through hands-on projects and document their work with the use of an engineering notebook. Students 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. NOTE: This course aligns with the PLTW Introduction to Engineering Design curriculum. Use of the PLTW curriculum may require additional training and membership in the PLTW network.

Advanced Manufacturing - Industry 4.0 Capstone (7222): Ivy Tech ADMF 116, ADMF 206

Length: 2 Semesters Credits: 2 HS, 6 College Credits Grade: 11, 12

Industry 4.0 - Smart Manufacturing Capstone introduces the basic theory, operation, and programming of industrial robots and their applications through simulations and hands-on laboratory activities. Multiple industry standard certifications in the field of robotics and automation will be available depending on the length of the course. As a capstone course, students are encouraged to participate in an intensive, embedded work-based learning experience.

Automotive Services

Principles of Automotive Services (7213): Ivy Tech AUTI 100, AUTI 111

Length: 2 Semesters Credits: 2 HS; 6 College Credits Grade: 10 (for selected students), 11, 12

Principles of Automotive Services 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.

7205 Brake Systems (7205): Ivy Tech AUTI 121

Length: 2 Semesters Credits: 2 HS; 3 College Credits Grade: 10 (for selected students), 11, 12

Brake Systems 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.

Steering and Suspensions (7212): **Ivy Tech AUTI 122, AUTI 145**

Length: 2 Semesters Credits: 2 HS; 6 College Credits Grade: 10 (for selected students), 11, 12

Steering and Suspensions will cover 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, the 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.

Automotive Service Capstone (7375): Ivy Tech AUTI 131, AUTI 141

Length: 2 Semesters Credits: 2 HS; 6 College Credits Grade: 11, 12

Automotive Service Capstone 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. The course will cover 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.

Aviation Management

Principles of Aviation Management (7214): Ivy Tech AVIT 111

Length: 2 Semesters Credits: 2 HS; 3 College Credits Grade: 10 (for selected students), 11, 12

Principles of Aviation Management provides students 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. Areas of study include aerodynamics, aircraft systems, performance, weight and balance, physiology, regulations, cross country planning, weather, and decision-making skills. Students will also learn of the departments associated with an airport and their impact on the industry as a whole.

Private Pilot Theory (7217): Ivy Tech AVIT 120

Length: 2 Semesters Credits: 2 HS; 3 College Credits Grade: 10 (for selected students), 11, 12

In *Private Pilot Theory* students 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.

Aviation Safety and Operations (7207): Ivy Tech AVIT 132, AVIT 138

Length: 2 Semesters Credits: 2 HS; 6 College Credits Grade: 10 (for selected students), 11, 12

Aviation Safety and Operations provides 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. Emphasis will be placed on financial and operational considerations as well as on regulatory requirements and constraints.

Principles of Aviation Maintenance (7372): Ivy Tech AVIT 141

Length: 2 Semesters Credits: 2 HS; 3 College Credits Grade: 10 (for selected students), 11, 12

Principles of Aviation Maintenance Regulations provides students with an understanding of Federal Aviation Administration (FAA) regulations as they pertain to aircraft technicians and the maintenance of aircraft. Topics of discussion will include aviation regulations, ground operations, weight and balance, and corrosion control.

Aviation Management Capstone (7385): AVIT 135, AVIT 208

Length: 2 Semesters Credits: 4 HS; 6 College Credits Grade: 11, 12

Aviation Management Capstone is an introduction to the aviation weather service program. Course topics include the National Weather Service, Flight Service Stations, International Civil Aviation Organization, and analyzing and interpreting weather reports and maps. Additionally, this course will prepare students for certification as an Instrument Pilot with an Airplane Single Engine Land rating. Areas of study include basic instrument flying, flying instruments, IFR charts and approach plates, IFR regulations and procedures, ATC clearances, and IFR flight planning.

Career and Technical Education Programs Continued

Construction Trades-Carpentry

Principles of Construction Trades (7130): Ivy Tech BCTI 100

Length: 2 Semesters Credits: 2 HS; 3 College Credits Grade: 10 (selected students), 11, 12

Principles of Construction Trades provides students with the basic skills needed to continue in a construction trade field. Covered topics include an introduction to the types and uses for common hand and power tools, learn the types and basic terminology associated with construction drawings, and basic worksite safety. Additionally, students study the roles of individuals and companies within the construction industry. Emphasis is placed on the importance of mathematical and communication skills within the construction industry.

Construction Trades: General Carpentry (7123): Ivy Tech BCTI 101, BCTI 102

Length: 2 Semesters Credits: 2 HS, 6 College Credits Grade: 10 (selected students), 11, 12

Construction Trades: General Carpentry builds upon the skills learned in the Principles of Construction Trades and examines the basics of framing. Students learn the procedures for laying out and constructing floor systems, wall systems, and ceiling joists. Students also spend time learning the principles of roof framing, and basic stair layout. Additionally, students will be introduced to building envelope systems.

Construction Trades: Framing and Finishing (7122): Ivy Tech BCTI 103, BCTI 104

Length: 2 Semesters Credits: 2 HS, 6 College Credits Grade: 10 (selected students), 11, 12

Construction Trades: Framing and Finishing prepares students with advanced framing skills along with interior and exterior finishing techniques. Covered topics include roofing applications, thermal and moisture protection, exterior finishing, cold-formed steel framing, drywall installation and finishing, doors and door hardware, suspended ceilings, window, door, floor, and ceiling trim, and cabinet installation.

Construction Trades: Capstone (7242): Ivy Tech BCTI 130, BCTI 201, BCTI 202, BCTI 280

Length: 2 Semesters Credits: 2 HS, 12 College Credits Grade: 11, 12

Construction Trades: Framing and Finishing prepares students with advanced framing skills along with interior and exterior finishing techniques. Covered topics include roofing applications, thermal and moisture protection, exterior finishing, cold-formed steel framing, drywall installation and finishing, doors and door hardware, suspended ceilings, window, door, floor, and ceiling trim, and cabinet installation.

Digital Technology: AI/Machine Learning

Principles of Computing (7183): Ivy Tech

Length: 2 Semesters Credits: 2 HS Grade: 10 (for selected students), 11, 12

Principles of Computing provides students the opportunity to explore how computers can be used in a wide variety of settings. The course will begin by exploring trends of computing and the necessary skills to implement information systems. Topics include operating systems, database technology, cybersecurity, cloud implementations and other concepts associated with applying the principles of good information management to the organization. Students will also have the opportunity to utilize basic programming skills to develop scripts designed to solve problems. Students will learn about algorithms, logic development, and flowcharting.

Software and Cloud Foundations (7488): Ivy Tech

Length: 2 Semesters Credits: 2 HS Grade: 10 (for selected students), 11, 12

Software and Cloud Foundations introduces students to concepts and practices of programming languages and software development. Students will become familiar with algorithms and the development of tools used to document/implement computer logic. Students will compare different program languages, programming paradigms such as real-time processing, web/databased applications, and other integrated development environments. Students will learn how to implement structed programming concepts and explore the uses of different programming languages. Throughout the course, students will develop, test, and debug programs in an integrated development environment. In addition to programming, students will gain a general understanding of cloud computing concepts, core services, security, architecture, pricing, and support. The course provides students with workforce preparation focused on the AWS Cloud Practitioner certification.

Career and Technical Education Programs Continued

AI and Data Fundamentals (7490): Ivy Tech

Length: 2 Semesters Credits: 2 HS Grade: 10 (for selected students), 11, 12

AI and Data Fundamentals introduce students to the basic concepts of databases including the types of databases, general database environment, and the importance of data in the business world. This course will provide discussion with hands-on activities which include database design, normalization of tables, and development of tables, queries, reports, and applications. Students will be familiarized with the use of the ANSI Structured Query Language. Students will be introduced to data concepts such as data warehousing, data mining, data visualization, data analysis, and big data.

AI/Machine Learning Capstone (7494): Ivy Tech

Length: 2 Semesters Credits: 2 HS Grade: 11, 12

AI/Machine Learning Capstone introduces students to key methodologies in machine learning (ML), emphasizing how each technique aligns with real-world problem domains and use cases. Throughout the course, attention is given to the human and ethical dimensions of data collection, transformation, and model training, ensuring students understand both the technical and responsible practice of machine learning. Students will also explore Large Language Models (LLMs) as the contemporary paradigm of Natural Language Processing (NLP). Students will develop a practical understanding of how modern Artificial Intelligence (AI) language technologies are designed, deployed, and leveraged across industry applications.

Human Services-Cosmetology

Principles of Barbering and Cosmetology (7330) @ Warsaw

Length: 2 Semesters Credits: 2 Grade: 11, 12

Principles of Cosmetology offers an introduction to cosmetology with emphasis on basic practical skills and theories including roller control, quick styling, shampooing, hair coloring, permanent waving, facials, manicuring, business and personal ethics, and bacteriology and sanitation. Successful completion of the course requires at least 375 Cosmetology studio hours.

Barbering and Cosmetology Fundamentals (7331) @ Warsaw

Length: 2 Semesters Credits: 2 Grade: 11, 12

Barbering and Cosmetology Fundamentals focuses on the development of practical skills introduced in Principles of Cosmetology. Clinical application and theory in the science of cosmetology are introduced. Successful completion of the course requires at least 375 Cosmetology studio hours.

Technical Skills Development (7156) @ Warsaw

Length: 2 Semesters Credits: 2 Grade: 11, 12

The *Technical Skills Development* course may be used to provide students with the opportunity to apply the technical knowledge and skills learned in a Concentrator A or B course through additional real world learning experiences such as lab activities, project based learning or a work-based learning experience. Students must be co-enrolled in a Concentrator A and/or B course in order to be enrolled in the Technical Skills Development course.

Advanced Cosmetology (7332) @ Warsaw

Length: 2 Semesters Credits: 2 Grade: 11, 12

Advanced Cosmetology will emphasize the development of advanced skills in styling, hair coloring, permanent waving, facials and manicuring. Students will also study anatomy and physiology as it applies to cosmetology. Successful completion of the course requires at least 375 Cosmetology studio hours.

Career and Technical Education Programs Continued

Barbering and Cosmetology Capstone (7334) @Warsaw

Length: 2 Semesters Credits: 2 Grade: 11, 12

Barbering and Cosmetology Capstone builds and improves previously developed skills with emphasis on developing individual techniques. Professionalism, shop management, psychology in relation to barbering and cosmetology, and preparation for state board examination are stressed. Successful completion of the course requires at least 375 studio hours.

Criminal Justice

Principles of Criminal Justice (7193): Ivy Tech CRIM 101, CRIM 134

Length: 2 Semesters Credits: 2 HS; 6 College Credits Grade: 10 (selected students), 11, 12

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. It will critically examine 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.

Law Enforcement Fundamentals (7191): Ivy Tech CRIM 105, CRIM 110

Length: 2 Semesters Credits: 2 HS; 6 College Credits Grade: 10 (selected students), 11, 12

Law Enforcement and Cultural Awareness introduces fundamental law enforcement operations and organization. Includes the evolution of law enforcement at federal, state, and local levels.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.

Corrections and Cultural Awareness (7188): Ivy Tech CRIM 103, CRIM 130

Length: 2 Semesters Credits: 2 HS; 6 College Credits Grade: 10 (selected students), 11, 12

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.

Criminal Justice Capstone (7231): Ivy Tech CRIM 201, CRIM 134, CRIM 120

Length: 2 Semesters Credits: 6 HS; 9 College Credits Grade: 11, 12

The *Criminal Justice Capstone* course allows students to complete additional instruction to earn a postsecondary certificate and should include a work-based learning component such as job shadowing, internship, etc. once the core content is completed.

Culinary Arts

Principles of Culinary and Hospitality (7173): Ivy Tech HOSP 101

Length: 2 Semesters Credits: 2 HS; 6 College Credits Grade: 10 (selected students), 11, 12

Principles of Culinary and Hospitality is designed to develop an understanding of the hospitality industry and career opportunities, and responsibilities in the food service and lodging industry. Introduces procedures for decision making which affects operation management, products, labor, and revenue. Additionally, students will learn the fundamentals of food preparation, basic principles of sanitation, service procedures, and safety practices in the food service industry including proper operation techniques for equipment.

Career and Technical Education Programs Continued

Nutrition (7171): Ivy Tech HOSP 104

Length: 2 Semesters Credits: 2 HS; 3 College Credits Grade: 10 (selected students), 11, 12

Nutrition students will learn the characteristics, functions and food sources of the major nutrient groups and how to maximize nutrient retention in food preparation and storage. Students will be made aware of nutrient needs throughout the life cycle and to apply those principles to menu planning and food preparation. This course will engage students in hands-on learning of nutritional concepts such as preparing nutrient dense meals or examining nutritional needs of student athletes.

Culinary Arts (7169)

Length: 2 Semesters Credits: 2 HS; 3 College Credits Grade: 10 (selected students), 11, 12

Culinary Arts teaches students how to prepare the four major stocks, the five mother sauces (in addition to smaller sauces) and various soups. Additional emphasis is placed on the further development of the classical cooking methods. This course will also present the fundamentals of baking science including terminology, ingredients, weights and measures, and proper use and care of equipment. Students will produce yeast goods, pies, cakes, cookies, and quick breads.

Culinary Capstone (7233)

Length: 2 Semesters Credits: 6 Grade: 11, 12

Culinary Capstone is a course that covers the techniques and skills needed in breakfast cookery as well as insight into the pantry department. Various methods of preparation of eggs, pancakes, waffles and cereals will be discussed. Students will receive instruction in salad preparation, salad dressing, hot and cold sandwich preparation, garnishes and appetizers. This course also covers the necessary skills for proper recruiting, staffing, training, and management of employees at various levels. The course will help prepare the student for the transition from employee to supervisor. Additionally, it will help the student evaluate styles of leadership and develop skills in human relations and personnel management.

Diesel Services

Principles of Diesel Technology (7216): Ivy Tech

Length: 2 Semesters Credits: 2 Grade: 10 (selected students), 11, 12

Principles of Diesel Technology introduces the maintenance requirements and procedures of modern diesel engines and medium and heavy-duty trucks. Proper procedures and requirements for the Federal Highway Safety Inspection (DOT) will be discussed and practiced. In addition, 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 electrical diagnosis and repair in the automotive electrical industry. Students will study the fundamentals of electricity and automotive electronics.

Diesel Steering and Brakes (7210): Ivy Tech

Length: 2 Semesters Credits: 2 Grade: 10 (selected students), 11, 12

Diesel Steering and Brakes studies steering and suspension systems commonly used on modern tractors and trailers. Topics will include steering and suspension components, power steering units, alignment theory and procedures, tire repair and service, and wheel balancing. Diagnosis, repair, and servicing of components including modern air suspension systems will be emphasized. Additionally, this course will cover theory, service, and repair of medium and heavy truck brake systems and their components. Emphasis is given to air brakes and their theory of operation, repair, and service of system components. Spring brakes and anti-lock systems will be studied on tractors and trailers.

Diesel Transmissions (7211): Ivy Tech

Length: 2 Semesters Credits: 2 Grade: 10 (selected students), 11, 12

Diesel Transmissions explores theory, diagnosis, and overhaul procedures related to manual transmissions and differentials. Course topics include service of twin countershaft, under-drive, overdrive, power-dividers, and air shift systems. Additionally, this course studies precision tools, equipment, and procedures needed to repair modern diesel engines. Repair, proper assembly, and component identification are examined along with service of removable cylinder liners.

Career and Technical Education Programs Continued

Diesel Services Capstone (7221): Ivy Tech

Length: 2 Semesters Credits: 2 Grade: 11, 12

Diesel Services Capstone further explores important skills and competencies within the Diesel Technology Pathway. Topics such as truck climate control systems, diesel engine performance, HT electrical systems, Hd truck auto transmission, and heavy truck electronics. Additionally, Co-Op and Internship opportunities will be available for students.

Digital Design

Principles of Digital Design (7140) @ Knox High School

Length: 2 Semesters Credits: 2 Grade: 10 (selected students), 11, 12

Principles of Digital Design 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, critical peer evaluation, and presentation skills. Students will have the opportunity to apply the design theory through an understanding of basic photographic theory and technique. Topics will include image capture, processing, various output methods, and light.

Digital Design Graphics (7141) @ Knox High School

Length: 2 Semesters Credits: 2 Grade: 10 (selected students), 11, 12

Digital Design Graphics will help students to understand and create the most common types of computer graphics used in visual communications. Skills are developed through work with professional vector-based and page layout software used in the industry. Additionally, students will be introduced to a full range of image input technology and manipulation including conventional photography, digital imaging, and computer scanners. Students will learn to communicate concepts and ideas through various imaging devices.

Graphic Design and Layout (5550) @ Knox High School

Length: 2 Semesters Credits: 2 Grade: 10 (selected students), 11, 12

Graphic Design and Layout teaches design process and the proper and creative use of type as a means to develop effective communications for global, corporate and social application. Students will create samples for a portfolio, which may include elements or comprehensive projects in logo, stationary, posters, newspaper, magazine, billboard, and interface design.

Entrepreneurship and New Venture Capstone (5966) @ Knox High School

Length: 2 Semesters Credits: 2 Grade: 11, 12

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

Early Childhood Education

Principles of Early Childhood Education (7160): Ivy Tech ECED 100, ECED 101

Length: 2 Semesters Credits: 2 HS; 6 College Credits Grade: 10 (selected students), 11, 12

This course provides students with an overview of skills and strategies necessary to successfully complete a certificate. Additionally, it provides an overview of the history, theory, and foundations of early childhood education as well as exposure to types of programs, curricula and services available to young children. This course also examines basic principles of child development, Developmentally Appropriate Practices (DAP), importance of family, licensing, and elements of quality care of young children with an emphasis on the learning environment related to health, safety, and nutrition. Students may be required to complete observations and field experiences with children as related to this course.

Career and Technical Education Programs Continued

Early Childhood Education Curriculum (7158): Ivy Tech ECED 103, ECED 104

Length: 2 Semesters Credits: 2 HS; 6 College Credits Grade: 10 (selected students), 11, 12

Early Childhood Education Curriculum examines developmentally appropriate environments and activities in various childcare settings while exploring the varying developmental levels and cultural backgrounds of children. Students may be required to complete observations and field experiences with children as related to this course.

Early Childhood Education Guidance (7159): Ivy Tech ECED 130, ECED 120

Length: 2 Semesters Credits: 2 HS; 6 College Credits Grade: 10 (selected students), 11, 12

This course allows students to analyze developmentally appropriate guidance, theory and implementation for various early care and education settings. It also provides a basic understanding of the anti-bias/multicultural emphasis in the field of early childhood. Students may be required to complete observations and field experiences with children as related to this course.

Early Childhood Education Capstone (7259): Ivy Tech ECED 105/ECED 234

Length: 2 Semesters Credits: 2 HS; 6 College Credits Grade: 11, 12

The *Early Childhood Education Capstone* will prepare students to complete the application, CDA exam, and verification process for the Child Development Associate (CDA) credential. Students may also study the physical, social, emotional, cognitive, and moral development of children from conception to age twelve. 64 Theories of child development, biological and environmental foundations, prenatal development, the birth process, and the newborn baby will be discussed. Additionally, students will explore the aspects of early literacy skill development in young children from birth through third grade. Students will explore techniques, technological tools and other learning opportunities that encourage positive attitudes in children regarding listening, speaking, reading and writing activities. In the course, students will research, examine and explore the use of observation in screening and assessment to promote healthy literacy development in early childhood education. Finally, students will be provided an introduction to caring for each exceptional child. This includes theories and practices for producing optimal developmental growth. Students may be required to complete observations and field experiences with children as part of this course.

Education Professions

Principles of Teaching (7161): Ivy Tech EDUC 101

Length: 2 Semesters Credits: 2 HS; 3 College Credits Grade: 10 (selected students), 11, 12

Principles of Teaching is a course that 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.

Child and Adolescent Development (7157): Ivy Tech EDUC 121

Length: 2 Semesters Credits: 2 HS; 3 College Credits Grade: 10 (selected students), 11, 12

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.

Teaching and Learning (7162): Ivy Tech EDUC 201

Length: 2 Semesters Credits: 2 HS; 3 College Credits Grade: 10 (selected students), 11, 12

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 65 commonly used microcomputer hardware, students will analyze ways to integrate technology as a tool for instruction, evaluation, and management.

Education Professions Capstone (7267): Ivy Tech EDUC 230, EDUC 233

Length: 2 Semesters Credits: 6 HS; 6 College Credits Grade: 11, 12

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 the 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.

Entrepreneurship

Principles of Entrepreneurship (7154): Ivy Tech ENTR 100, ENTR 200

Length: 2 Semesters Credits: 2 HS; 6 College Credits Grade: 10 (selected students), 11, 12

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.

Entrepreneurial Operations (7147): Ivy Tech ENTR 105, ENTR 205

Length: 2 Semesters Credits: 2 HS; 6 College Credits Grade: 10 (selected students), 11, 12

Entrepreneurial Operations will focus on key marketing strategies particularly relevant to new ventures. Students will develop an understanding of marketing, advertising, social media, and branding. Upon successful completion of this course, the student should be able to identify and 89 evaluate the various sources available for funding a new enterprise; demonstrate an understanding of financial terminology; read, prepare, and analyze basic financial statements; estimate capital requirements and risk, exit strategies; and prepare a budget for their business. In addition, the student should be able to explain the importance of working capital and cash management. The student should also be able to identify financing needs and prepare sales forecasts.

New Venture Development (7148): Ivy Tech ENTR 215, ENTR 218

Length: 2 Semesters Credits: 2 HS; 6 College Credits Grade: 10 (selected students), 11, 12

New Venture Development is targeted to students interested in creating and growing their own businesses. The course will focus on key marketing strategies particularly relevant for new ventures including the appropriate business structure and organization, developing plans and strategies for the entrepreneurial venture, financing strategies, exploring growth opportunities, and successfully managing scarce resources. Students will explore buy/sell/lease negotiations, insurance, logistics, and technology use. By the end, students will be well-prepared to tackle the challenges of small business management and entrepreneurship.

Small Business Capstone (7201): Ivy Tech BUSN 105, BUSN 201, ACCT 101

Length: 2 Semesters Credits: 6 HS; 12 College Credits Grade: 11, 12

The *Small Business Operations Capstone* is an applied course, and students will be implementing the correct legal, business, human resources, operations, marketing and financial structures after de- risking their idea and launching their business.

Career and Technical Education Programs Continued

Fire and Rescue

Principles of Fire and Rescue (7195): Ivy Tech HLHS 104

Length: 2 Semesters Credits: 2 HS; .5 College Credits Grade: 10 (selected students), 11, 12

Principles of Fire and Rescue introduces students to the various roles that firefighters and emergency services workers play to protect the public from the loss of life and property. They are frequently the first emergency personnel at the scene of a traffic accident or medical emergency and may be called upon to put out a fire, treat injuries or perform other vital functions. This course will introduce students to the history, terminology, and basic firefighting skills needed for a beginning firefighter. Additionally, students will develop a career plan for a career in public safety including areas of Fire Science, Homeland Security, and Emergency Medical Services.

Fire Fighting Fundamentals (7189): Ivy Tech HLHS 122, HSPS 122, HSPS 165

Length: 2 Semesters Credits: 2 HS; 6 College Credits Grade: 10 (selected students), 11, 12

Fire Fighting Fundamentals is for those students who are seeking certification as a firefighter. This course will prepare students for the Hazardous Materials Awareness and Operations certifications and will introduce students to NFPA 1001 which serves as the standard of measurement for all firefighters in North America. Students will learn the knowledge and hands-on practical skills for managing and controlling a hazardous materials incident required for the certifications. Furthermore, students will study how a fire behaves and will learn the basic firefighting skills needed to extinguish a fire while protecting themselves and other firefighters.

Advanced Fire Fighting (7186): Ivy Tech HSPS 167

Length: 2 Semesters Credits: 2 HS; 3 College Credits Grade: 10 (selected students), 11, 12

Advanced Fire Fighting expands upon the principles and techniques of firefighting learned in Fire Fighting Fundamentals. Students will study fire protection systems, firefighter safety, and survival. Students will also learn what fire is, the chemical hazards of combustion, and related by-products of fire. Additionally, students will gain a better understanding of fire department organization, administration, operations, and basic strategies and tactics.

Fire and Rescue Capstone/EMT (7229): Ivy Tech HSPS 125, PARM 102

Length: 2 Semesters Credits: 2 HS; 10.5 College Credits Grade: 11, 12

Fire and Rescue Capstone will prepare students to earn the EMT certification.

Students who completed year 1 of Nursing are eligible to take EMT (7165 EMT; 7255)

Pre-Nursing/Healthcare Specialist

Principles of Healthcare (7168): Ivy Tech HLHS 100; HLHS 104

Length: 2 Semesters Credits: 2 HS; 3.5 College Credits Grade: 10 (selected students), 11, 12

Principles of Healthcare content examines 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.

Healthcare Fundamentals (5274): Ivy Tech HLHS 101, HLHS 102

Length: 2 Semesters Credits: 2 HS; 6 College Credits Grade: 10 (selected students), 11, 12

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.

Career and Technical Education Programs Continued

Technical Skills Development (7156)

Length: 2 Semesters Credits: 2 HS; Grade: 10 (selected students), 11, 12

The *Technical Skills Development* course may be used to provide students with the opportunity to apply the technical knowledge and skills learned in a Concentrator A or B course through additional real world learning experiences such as lab activities, project based learning or a workbased learning experience. Students must be co-enrolled in a Concentrator A and/or B course in order to be enrolled in the Technical Skills Development course.

Health Care Specialist CNA (7166): Ivy Tech HLHS 107

Length: 2 Semesters Credits: 2 HS; 5 College Credits Grade: 10 (selected students), 11, 12

The *Healthcare Specialist: CNA* course 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 (CNA) training and for health care workers in long-term care facilities.

Health Care Specialist CCMA (7164): Ivy Tech MEAS 225

Length: 2 Semesters Credits: 2 HS; 6 College Credits Grade: 10 (selected students), 11, 12

The *Certified Clinical Medical Assistant (CCMA*) course will prepare students for the National Healthcare Association CCMA exam. Instruction includes taking and recording vital signs, preparing patients for examination, patient education, and assisting the physician during the exam. The collecting and preparation of laboratory specimens and basic laboratory testing will be covered. The course prepares students for the administration of medication, venipuncture, ECG, and wound care and provides a basic understanding of the clinical and administrative duties and responsibilities pertinent to medical offices. Instruction in medical correspondence and records, case histories of patients, filing, telephone procedures, appointment scheduling, receptionist duties, and processing mail is also included. Written, verbal, and nonverbal communications according to patient needs are covered as well as documentation and associated legal and ethical boundaries.

Health Care Specialist Capstone (7255): Ivy Tech HLHS 105, HLHS 122, HLHS 125

Length: 2 Semesters Credits: 4 HS; 9 College Credits Grade: 11, 12

The *Healthcare Specialist Capstone* course will facilitate healthcare students' acquisition of additional knowledge and skills necessary to work in a variety of healthcare settings beyond a long term care facility including hospitals, doctors' offices, and clinics. Students can accomplish this goal by completing coursework that will cover topics such as Medical Law and Ethics, Electronic Health Records, and/or Behavioral Health. Schools may offer additional healthcare certifications such as the Certified Clinical Medical Assistant (CCMA) or Phlebotomy along with the coursework or in place of the coursework.

Students who completed year 1 of Nursing are eligible to take EMT (7165 EMT; 7255)

Precision Machining

Principles of Precision Machining (7109): Ivy Tech MTTC 101, MTTC 106

Length: 2 Semesters Credits: 2 HS; 6 College Credits Grade: 10 (selected students), 11, 12

Principles of Precision Machining provides students with a basic understanding of the processes used to produce industrial goods. Classroom instruction and labs will focus on shop safety, measurement, layout, blueprint reading, shop math, metallurgy, the use of basic hand tools, milling, turning, grinding, and sawing operations. This course prepares the student for the optional National Institute for Metalworking Skills (NIMS) Measurement, Materials, & Safety Certification, which may be required for college dual credit.

Career and Technical Education Programs Continued

Precision Machining Fundamentals (7105): Ivy Tech MTTC 102, MTTC 103

Length: 2 Semesters Credits: 2 HS; 6 College Credits Grade: 10 (selected students), 11, 12

Precision Machining Fundamentals will build a foundation in conventional milling and turning. Students will be instructed in the classroom on topics of shop safety, theory, industrial 15 terminology, and calculations. Lab work will consist of the setup and operation of vertical and/or horizontal milling machines and engine lathes. This course prepares the student for the optional National Institute for Metalworking Skills (NIMS) Milling I Certification, which may be required for college dual credit.

Advanced Precision Machining: Ivy Tech MTTC 105, MTTC 110

Length: 2 Semesters Credits: 2 HS; 6 College Credits Grade: 10 (selected students), 11, 12

Advanced Precision Machining builds upon the Turning and Milling processes learned in Precision Machining Fundamentals and builds a foundation in abrasive-process machines. Students will be instructed in the classroom on topics of shop safety, theory, industrial terminology, and calculations associated with abrasives. Lab work will consist of the setup and operation of bench grinders and surface grinders. Additionally students will be introduced to Computerized Numeric Controlled (CNC) setup, operations and programming. This course prepares the student for the optional National Institute for Metalworking Skills (NIMS) Grinding I Certification, which may be required for college dual credit.

Precision Machining Capstone (7219): Ivy Tech MTTC 107, MTTC 208, MTTC 209

Length: 2 Semesters Credits: 6 HS; 9 College Credits Grade: 11, 12

The *Precision Machining Capstone* is an in-depth study of skills learned in Precision Machining I, with a stronger focus on CNC setup/operation/programming. Students will be introduced to two axis CNC lathe programming and three axis CNC milling machine programming. Develops the theory of programming in the classroom with applications of the program accomplished on industry-type machines. Studies terminology of coordinates, cutter paths, angle cutting, and linear and circular interpolation. Classroom activities will concentrate on precision set-up and inspection work, as well as machine shop calculations. Students will develop skills in advanced machining and measuring parts involving tighter tolerances and more complex geometry. Throughout the course there will be a continued focus on workplace safety.

Veterinary Sciences

Principles of Veterinary Science (7280)

Length: 2 Semesters Credits: 2 Grade: 10 (selected students), 11, 12

Principles of Veterinary Science provides students with an overview of the small and large animal veterinary industry which includes companion, food, and exotic animals. Principles of Veterinary Science provides students with an overview of common veterinary careers, including: veterinary assistant, veterinary technician, and veterinarian. Students will learn the foundational knowledge necessary for a career working with either large or small animals. Students will also begin developing practical lab skills and an understanding of common veterinary office practices.

Veterinary Science (7281)

Length: 2 Semesters Credits: 2 Grade: 10 (selected students), 11, 12

Veterinary Science provides students with opportunities to participate in a variety of activities including laboratory work. Students will explore concepts including medical terminology, laboratory procedures, clinical examination procedures, and the principles of animal diseases. Students will be introduced to issues associated with working in a veterinary clinic, veterinary clinic management, and veterinary law and ethics.

Advanced Life Science, Animals (5070): Ivy Tech AGRI 107

Length: 2 Semesters Credits: 2, 3 College Credits Grade: 10 (selected students), 11, 12

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

Career and Technical Education Programs Continued

Veterinary Science Capstone (7282): Ivy Tech AGRI 102

Length: 2 Semesters Credits: 2, 3 College Credits Grade: 11, 12

The *Veterinary Science Capstone* builds upon the knowledge and skills developed in the animal and veterinary courses by developing advanced skills that students can apply to the field. As a capstone course, students should have the opportunity to apply their knowledge and use skills through an intensive work-based learning experience. Students should explore concepts related to pharmacy and pharmacology, medical math, animal nursing, radiology and ultrasound imaging, and surgical preparation and assisting.

Animal Science (5008): Ivy Tech AGRI 103

Length: 2 Semesters Credits: 2, 3 College Credits Grade: 10 (selected students), 11, 12

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

Ag Special Topics (6150)

****THIS IS ONLY FOR STUDENTS WHO HAVE TAKEN AGRI 100 ALREADY AND NEED TO MEET A CERTIFICATE****

Length: 2 Semesters Credits: 2, 3 College Credits Grade: 10 (selected students), 11, 12

Agriculture: Special Topics is an extended-learning experience designed to address the advancement and specialization of careers within a specific career cluster through the provision of a specialized course for a specific workforce need in the school's region. The learning experience is at a qualified site, and is designed to give the student the opportunity to learn and practice 18 technical skills; while working under the direction of the appropriately licensed professional. Throughout the course, students will focus on learning about employment opportunities and obtaining the knowledge, skills and attitudes essential for success in specific occupations. Course standards and curriculum must be tailored to the specific profession, preparing students to advance in this career field, and where applicable, provide students with opportunities for certification or dual credit. Participation in a related CTSO encourages the development of leadership, communication and career related skills, and opportunities for community service.

Welding Technology

Principles of Welding Technology (7110): Ivy Tech WELD 100

Length: 2 Semesters Credits: 2, 3 College Credits Grade: 10 (selected students), 11, 12

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

Shielded Metal Arc Welding (7111): Ivy Tech WELD 108, WELD 206

Length: 2 Semesters Credits: 2, 6 College Credits Grade: 10 (selected students), 11, 12

Shielded Metal Arc Welding involves the theory and application of the Shielded Metal Arc Welding process. Process theory will include basic electricity, power sources, electrode selection, and all aspects pertaining to equipment operation and maintenance. Laboratory welds will be performed in basic weld joints with a variety of electrodes in the flat, horizontal and vertical positions. Emphasis will be placed on developing the basic skills necessary to comply with AWS industry standards.

Career and Technical Education Programs Continued

Gas Welding Processes (7101): Ivy Tech WELD 207, WELD 272

Length: 2 Semesters Credits: 2, 6 College Credits Grade: 10 (selected students), 11, 12

Gas Welding Processes is designed to cover the operation of Gas Metal Arc Welding (MIG) equipment. This will include all settings, adjustments and maintenance needed to weld with a wire feed system. Instruction on both short-arc and spray-arc transfer methods will be covered. Tee, lap, and open groove joints will be done in all positions with solid, fluxcore, and aluminum wire. Test plates will be made for progress evaluation. Schools may choose to offer the course as a comprehensive MIG Welding course or a combination of introductory MIG and TIG Welding operations.

Welding Technology Capstone (7226): Ivy Tech WELD 208, WELD 273

Length: 2 Semesters Credits: 6, 6 College Credits Grade: 11, 12

The *Welding Technology Capstone* course builds upon the knowledge and skills developed in Welding Fundamentals, Shielded Metal Arc Welding, and Gas Metal Arc Welding by developing advanced welding skills in Gas Tungsten Arc Welding (TIG), Pipe Welding, and Fabrication. As a capstone course, students should have the opportunity to apply their knowledge and use skills through an intensive work-based learning experience.

Dual Credit Courses at Triton Jr.-Sr. High School

Below you will see the dual credit classes that Triton Jr-Sr High School currently offers. Triton requires that students have at least a C in the preceding level of the class or departmental approval for enrollment into one of these dual credit courses. Shaded areas indicate classes on Indiana's Priority Dual Credit List which count for Academic Honors Diploma or Technical Honors Diploma requirements.

Triton Jr-Sr High School Dual Credits Offered through IVY TECH COMMUNITY COLLEGE

Triton Courses	Ivy Tech Courses (Credit Hrs)	Prerequisite Requirements
English 12 Honors (Grade 12)	**ENGL 215**-Rhetoric and Argument (3) **ENGL 206**-Intro to Literature (3)	Completion of ENGL 111-English Composition with C or higher.
Adv. Speech COMM 101 (Grade 11)	**COMM 101**-Fundamentals of Public Speaking (3)	Writing: ACT 17, PSAT 26, SAT 27, Accuplacer NG 257 Reading: ACT 18, PSAT 25, SAT 25, Accuplacer NG 257
English 11 Honors/ Adv Eng 11 CC (Grade 11)	**ENGL 111**- English Composition (3)	Writing: ACT 17, PSAT 26, SAT 27, Accuplacer NG 257 Reading: ACT 18, PSAT 25, SAT 25, Accuplacer NG 257
US History Honors (Grade 11)	**HIST 101-** Survey of American History I (3) **HIST 102-** Survey of American History II (3)	Writing: ACT 17, PSAT 26, SAT 27, Accuplacer NG 257 Reading: ACT 18, PSAT 25, SAT 25, Accuplacer NG 257
US Government Honors (Grade 12)	**POLS 101**- Introduction to American Government and Politics (3)	Writing: ACT 17, PSAT 26, SAT 27, Accuplacer NG 257 Reading: ACT 18, PSAT 25, SAT 25, Accuplacer NG 257
AP Calculus AB	**MATH 211**-Calculus I (4)	Math: Accuplacer NG 286 (AAF) or successful completion of MATH 136 and MATH 137
Pre-Calculus Honors	**MATH 136**-College Algebra (3)	Math: ACT 24, PSAT 27, SAT 550, Accuplacer 74 (Elementary Algebra)
Trigonometry Honors	**MATH 137**- Trigonometry with Analytic Geometry (3)	Math: ACT 24, PSAT 27, SAT 550, Accuplacer 74 (Elementary Algebra)
Principles of Agriculture	**AGRI 100-** Introduction of Agriculture	None; Successfully complete class with C or above
Adv Life Science, Animals	**AGRI 107**- Advanced Animal Science (3)	None; Successfully complete class with C or above
Adv Life Science, Plant	**AGRI 109**- Advanced Plant and Soil Science (3)	None; Successfully complete class with C or above
Animal Science	**AGRI 103**- Animal Science (3)	None; Successfully complete class with C or above
Plant & Soil Science	**AGRI 105**- Plant and Soil Science (3)	None; Successfully complete class with C or above

*AGRI 107 and AGRI 103 alternate years. AGRI 103 will be offered in '27-'28

*AGRI 109 and AGRI 105 alternate years. AGRI 109 will be offered in '27-'28