

# MHS Course Catalog



2025-2026

Updated January 2025

## **Table of Contents**

[CTE Pathways](#)

[Agriculture](#)

[Business](#)

[Consumer and Family Sciences](#)

[Fine Arts](#)

[Visual Arts](#)

[Music \(Band, Orchestra, Choir\)](#)

[Theatre](#)

[World Languages](#)

[Health/Physical Education](#)

[Language Arts](#)

[Mathematics](#)

[Science](#)

[Social Studies](#)

[Engineering and Technology Education](#)

[Non-Departmental](#)

[Hoosier Hills](#)

**CTE PATHWAYS MHS**

Next Level Career Pathways/Programs of Study		Perkins V - Next Level Programs of Study Course Sequences					
Cluster	Career Pathway	Principles - Level I		CTE Concentrator A - Level I		CTE Concentrator B - Level I	
Advanced Manufacturing	Industrial Automation and Robotics	7108	Principles of Advanced Manufacturing	7103	Advanced Manufacturing Technology	7106	Mechatronics Systems
Advanced Manufacturing	Precision Machining	7109	Principles of Precision Machining	7105	Precision Machining Fundamentals	7107	Advanced Precision Machining
Agriculture, Food and Natural Resources	Ag Mechanical and Engineering	7117	Principles of Agriculture	5088	Agriculture Power, Structures and Technology	7112	Agriculture Structures Fabrication and Design
Agriculture, Food and Natural Resources	Agriscience - Plants or Animals	7117	Principles of Agriculture	5008	Animal Science - NLPS	5102	Food Science - NLPS
Agriculture, Food and Natural Resources	Landscaping	7117	Principles of Agriculture	5132	Horticultural Science	7115	Landscape and Turf Management
Architecture and Construction	Construction Trades - Carpentry	7130	Principles of Construction Trades	7123	Construction Trades: General Carpentry	7122	Construction Trades: Framing and Finishing
Arts, AV Tech and Comm	Radio and Television Broadcasting	7139	Principles of Broadcasting	7306	Audio and Video Production Essentials	7307	Mass Media Production
Finance	Accounting	4562	Principles of Business Management	4524	Accounting Fundamentals	4522	Advanced Accounting
Marketing	Marketing and Sales	4562	Principles of Business Management	5914	Marketing Fundamentals	5918	Strategic Marketing - NLPS

**\*\*NOT ALL COURSES CAN BE OFFERED EVERY YEAR\*\***

Education and Training	Education Careers		7161	Principles of Teaching	7157	Child and Adolescent Development	7162	Teaching and Learning
Health Sciences	Biomedical Sciences and Technology		5218	Principles of Biomedical Sciences	5216	Human Body Systems	5217	Medical Interventions
Human Services	Human and Social Services		7176	Principles of Human Services	7276	Fundamentals of Human & Social Services	7278	Community Health Worker
Law, Public Safety, Corrections, and Security	Criminal Justice		7193	Principles of Criminal Justice	7191	Law Enforcement Fundamentals	7188	Corrections and Cultural Awareness
Information Tech/Computer Sci	Software Development		7183	Principles of Computing	7185	Website and Database Development	7184	Software Development
STEM	Engineering		4802	Introduction to Engineering Design	5644	Principles of Engineering	5650	Civil Engineering and Architecture
Transportation, Distribution, and Logistics	Automotive Services		7213	Principles of Automotive Services	7205	Brake Systems	7212	Steering and Suspensions
Visual Arts (LCP)			4562	Principles of Business Management	4006	Advanced 2D	4040	Ceramics
			7161	Principles of Teaching	4002	Advanced 3D	4044	Sculpture
			4000	Intro to 2D			4046	Fiber Arts
			4002	Intro to 3D			4060	Drawing
							4064	Painting
							4066	Printmaking
							4024	Art History
Band (LCP)			4562	Principles of Business Management	4170	Advanced Concert Band	4162	Instrumental Ensemble

**\*\*NOT ALL COURSES CAN BE OFFERED EVERY YEAR\*\***

		7161	Principles of Teaching			4164	Jazz Ensemble
		4160	Beginning Band			4204	Piano/Keyboarding
		4168	Intermediate Concert Band			4206	Music History/Appreciation
						4208	Music Theory
Choir(LCP)		4562	Principles of Business Management	4188	Advanced Chorus	1078	Advanced Speech
		7161	Principles of Teaching			1092	Creative Writing
		4182	Beginning Chorus			4204	Piano/Keyboarding
		4186	Intermediate Chorus			4206	Music History/Appreciation
						4208	Music Theory
Orchestra (LCP)		4562	Principles of Business Management	4174	Advanced Orchestra	4204	Piano/Keyboarding
		7161	Principles of Teaching			4206	Music History/Appreciation
		4166	Beginning Orchestra			4208	Music Theory
		4172	Intermediate Orchestra				

**CTE PATHWAYS HAMMONS/APEX**

	<b>Next Level Career Pathways/Programs of Study</b>		<b>Perkins V - Next Level Programs of Study Course Sequences</b>					
	<b>Cluster</b>	<b>Career Pathway</b>	<b>Principles - Level I</b>		<b>CTE Concentrator A - Level I</b>		<b>CTE Concentrator B - Level I</b>	
Class of '26	Business Management and Administration	Business Administration	4562	Principles of Business Management	7143	Management Fundamentals	4524	Accounting Fundamentals
Class of '25	Finance	Accounting	4562	Principles of Business Management	4524	Accounting Fundamentals	4522	Advanced Accounting

**CTE/PATHWAYS HOOSIER HILLS**

<b>Next Level Career Pathways/Programs of Study</b>		<b>Perkins V - Next Level Programs of Study Course Sequences</b>					
<b>Cluster</b>	<b>Career Pathway</b>	<b>Principles - Level I</b>		<b>CTE Concentrator A - Level I</b>		<b>CTE Concentrator B - Level I</b>	
Advanced Manufacturing	Welding Technology	7110	Principles of Welding Technology	7111	Shielded Metal Arc Welding	7101	Gas Welding Processes
Health Sciences	Emergency Medical Services	7168	Principles of Healthcare	5274	Medical Terminology - NLPS	7165	Emergency Medical Tech
Health Sciences	Pre-Nursing	7168	Principles of Healthcare	5274	Medical Terminology - NLPS	7166	Healthcare Specialist: C N A
Hospitality and Tourism	Culinary Arts	7173	Principles of Culinary and Hospitality	7171	Nutrition	7169	Culinary Arts
Law, Public Safety, Corrections, and Security	Fire and Rescue	7195	Principles of Fire and Rescue	7189	Fire Fighting Fundamentals	7186	Advanced Fire Fighting
Transportation, Distribution, and Logistics	Automotive Collision Repair	7215	Principles of Collision Repair	7204	Automotive Body Repair	7206	Plastic Body Repair and Painting Fundamentals

## **AGRICULTURE COURSES**

### **PRINCIPLES OF AGRICULTURE A, B (DOE 7117)**

**2 Credits    2 Semesters    Grades 9-12**

Prerequisite: None

Principles of Agriculture is a two-semester course that will cover the diversity of the agricultural industry and agribusiness concepts. Students will develop an understanding and the role of agriculture in the United States and globally. Topics covered in the course range from animals, plants, food, natural resources, ag power, structures, and technology, as well as careers.

- Counts as an Elective for All Diplomas
- “Principles” Course Agriculture Pathways

### **ANIMAL SCIENCE A, B (DOE 5008)**

**2 Credits    2 Semesters    Grades 10-12**

Prerequisite: Principles of Agriculture

Animals provide both food and companionship for us. This class addresses such topics as animal anatomy, genetics, reproduction, nutrition, and diseases. New management practices for the care and maintenance of both farm animals and non-farm animals are discussed. Any student who enjoys or plans to work with animals should experience this class. Meets FFA membership requirement

- Counts as an Elective for All Diplomas
- Fulfills Life or Physical Science Requirement for General Diploma
- Fulfills a Core 40 science for the Core 40 diploma
- Potential Dual Credit through Ivy Tech (3 college credits – must take 1 and 2 in the same year for Dual Credit)
- “Concentrator A” Agri-science – Animals Pathway

### **FOOD SCIENCE A, B (DOE 5102)**

**2 Credits    2 Semesters    Grades 10-12**

Prerequisite: Principles of Agriculture

Food Science is a two-semester course that provides students with an overview of food science and the role it plays in the securing of a safe, nutritious, and adequate food supply. A project-based approach is utilized in this course, along with laboratory, team building, and problem-solving activities to enhance student learning. Students are introduced to the following areas of food science: food processing, food chemistry and physics, nutrition, food microbiology, preservation, packaging and labeling, food commodities, food regulations, issues, and careers in the food science industry.



- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Life Science or Physical Science requirement for the General Diploma
- “Concentrator B” Course Agri-science – Animals Pathway

**AGRICULTURAL POWER, STRUCTURE, & TECHNOLOGY A, B (DOE 5088)**  
**2 Credits 2 Semesters Grades 10-12**

Prerequisite: Principles of Agriculture

Agriculture Power, Structure and Technology is a two semester, lab intensive course in which students develop an understanding of 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

You will develop an understanding and appreciation for all things mechanical. You will learn the parts and functions of air-cooled engines, as well as their application in our daily lives. These skills will enable you to further explore related career opportunities or make you a more functional citizen by employing what you have learned as a basic life skill. Meets FFA membership requirement

- Counts as an Elective for All Diplomas
- Potential Dual Credit through Ivy Tech (3 college credits – must take 1 and 2 in the same year for Dual Credit)
- “Concentrator A” Course Ag Mechanical and Engineering Pathway

**AGRICULTURE STRUCTURES FABRICATION AND DESIGN A, B (DOE 7112)**  
**2 Credits 2 Semesters Grades 10-12**

Prerequisite: Principles of Agriculture

Agricultural Structures Fabrication and Design is a two-semester course that focuses on metalwork, and agricultural structures. This course will allow 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.

- Counts as an Elective for All Diplomas
- “Concentrator B” Course Ag Mechanical and Engineering Pathway

**HORTICULTURAL SCIENCE A, B (DOE 5132)**

**2 Credits 2 Semesters Grades 10-12**

Prerequisite: Principles of Agriculture

This class will put you in touch with our earth! Horticulture is designed to give you an understanding and appreciation for the broad field of modern horticulture. Topics include: propagation of plants, plant growth, growth media nursery, gardening, pest management, landscape design, application and maintenance of horticulture equipment, and management of greenhouse operations. The job market in horticulture continues to grow rapidly and every student should include this class in his or her future plans. Meets FFA membership requirement. IVY TECH dual credit may be earned.

- Counts as an Elective for All Diplomas
- Fulfills Life or Physical Science Requirement for General Diploma
- Potential Dual Credit through Ivy Tech (3 college credits – must take 1 and 2 in the same year for Dual Credit)
- “Concentrator A” Course Landscaping Pathway

**LANDSCAPE AND TURF MANAGEMENT A, B (DOE 7115)**

**2 Credits 2 Semesters Grades 10-12**

Prerequisite: Principles of Agriculture

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

- Counts as a Directed Elective or Elective for all diplomas
- “Concentrator B” Course Landscaping Pathway

**AGRICULTURE MECHANIZATION AND TECHNOLOGY CAPSTONE (DOE 7228)**

**2 Credits 2 Semesters Grades 11-12**

Prerequisite: AgPower, Structures and Technology;Ag Structures Fabrication and Design

The Agriculture Mechanization and Technology Capstone builds upon the knowledge and skills developed in the Principles, AgPower, Structures and Technology, Agricultural Structures Fabrication and Design courses by developing advanced skills that students can apply to the field. Students enrolled in this course will participate in lab activities involving agricultural equipment such as fueled power engines, electrical motors, pneumatic and hydraulic systems, etc. Students will be instructed on the

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operation, maintenance, repair, engineering and design of the agricultural mechanics and technology systems. As a capstone course, students should have the opportunity to apply their knowledge and use skills through an intensive work-based learning experience.

## **BUSINESS COURSES**

### **PRINCIPLES OF BUSINESS MANAGEMENT A, B (DOE 4562)**

**2 Credits 2 Semesters Grades 10-12**

**Prerequisite:** None

Learn how to be a leader and a team player! Develop skills through planning, organizing, staffing, leading, and controlling. Participate in team building activities and understand what it takes to motivate workers. Principles of Business Management focuses on the roles and responsibilities of managers as well as opportunities and challenges of ethically managing a business in the free enterprise system.

- Counts as a Directed Elective or Elective for All Diplomas
- Potential Dual Credit through Vincennes University (3 college credits – must take A and B in the same year for Dual Credit)
- “Principles” Course for Business Pathways

### **PREPARING FOR COLLEGE & CAREERS (DOE 5394)**

**1 Credit 1 Semester Grade 9 ONLY**

**Prerequisite:** None

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

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

**MANAGEMENT FUNDAMENTALS A, B (DOE 7143)**

**2 Credits**

**2 Semesters**

**Grades 11-12**

**Prerequisite:** Principles of Business

Principles of Marketing take place every day of your life and in every job you will hold. This is a class designed to teach students not only about the various functions of marketing, but also how each function fits with the others. Throughout the course, students will learn about marketing in a global economy, sports and entertainment marketing, fashion merchandising, E-commerce, developing a new product, professionalism, and also will be able to create an advertising campaign and learn about possible careers in Marketing.

- Counts as a Directed Elective or Elective for all diplomas
- “Concentrator A” Course Business Management Pathway

**PRINCIPLES OF MARKETING A, B (DOE 5914)**

**2 Credits**

**2 Semesters**

**Grades 11-12**

**Prerequisite:** Principles of Business

Principles of Marketing take place every day of your life and in every job you will hold. This is a class designed to teach students not only about the various functions of marketing, but also how each function fits with the others. Throughout the course, students will learn about marketing in a global economy, sports and entertainment marketing, fashion merchandising, E-commerce, developing a new product, professionalism, and also will be able to create an advertising campaign and learn about possible careers in Marketing.

- Counts as a Directed Elective or Elective for all diplomas
- Potential Dual Credit through Vincennes University (3 college credits – must take A and B in the same year for Dual Credit)
- “Concentrator A” Course Marketing and Sales Pathway

**ACCOUNTING FUNDAMENTALS A, B (DOE 4524)**

**2 Credits**

**2 Semesters**

**Grades 11-12**

**Prerequisite:** Principles of Business Management

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

- Counts as a Directed Elective or Elective for All Diplomas
- Potential Dual Credit through Vincennes University (3 college credits – must take A and B in the same year for Dual Credit)
- “Concentrator A” Course Accounting Pathway
- “Concentrator B” Course Business Administration

**ADVANCED ACCOUNTING A, B(DOE 4522)**

**2 Credits**

**2 Semesters**

**Grades 11-12**

**Prerequisite:** Principles of Business Management, Accounting Fundamentals

Advanced Accounting expands on the Generally Accepted Accounting Principles (GAAP) and procedures for various forms of business ownership using double-entry accounting covered in Accounting Fundamentals, including an emphasis on payroll accounting. Topics covered include calculating gross pay, withholdings, net pay, direct deposits, journalizing payroll transactions and preparing individual earnings records and payroll registers. Emphasis is placed on applying Generally Accepted Accounting Principles through hands-on practice with popular commercial accounting software packages that are currently used in business.

- Counts as a Directed Elective or Elective for All Diplomas
- “Concentrator B” Course Accounting Pathway

**STRATEGIC MARKETING A, B (DOE 5918)**

**2 Credits 2 Semesters Grade: 11-12**

**Prerequisite:** Principles of Business Management OR Marketing Fundamentals

A continuation and expansion of the Marketing class. In this class, we will explore the marketing mix in more detail and work with local companies with real marketing problems. Students will be responsible for more hands-on projects and critical thinking about marketing for businesses, careers in marketing and how entrepreneurs need and use marketing. Students will be conducting different forms of marketing research, creating an in-depth marketing plan for an existing company, and producing effective advertising campaigns.

- Counts as a Directed Elective or Elective for all diplomas
- Potential Dual Credit through Vincennes University (3 college credits – must take A and B in the same year for Dual Credit)
- “Concentrator B” Course Marketing and Sales Pathway

**Business, Marketing and Entrepreneurship: Special Topics (DOE 5968)**

**1 Credit 1 Semester Grades 10-12**

Prerequisite: None

Business, Marketing, and Entrepreneurship: Special Topics is an extended learning experience designed to address the advancement and specialization of careers within the 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 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.

**WORK BASED LEARNING (Internship) (DOE 5974)**  
**3-6 Credits per Semester (6 credits Max.) Grade 12**

**Prerequisite:** Core 40 courses, attendance and discipline records will be reviewed. An application and interview process must be completed during a student's junior year.

Work Based Learning enables students to gain knowledge of their career field in a non-traditional way. Interns report to site(s) in the community Monday-Thursday of each week. Students do related learning projects in an Internship class on Fridays. An internship may be done in any career field from two to five periods a day. Credit is received for each period the student interns

- Counts as a Directed Elective or Elective for all diplomas

**BUSINESS MATH 1, 2 (DOE 4512)**  
**2 Credits 2 Semesters Grade 12**

**Prerequisite:** Algebra I

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.

- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Mathematics requirement for the General Diploma or Certificate of Completion only
- Qualifies as a quantitative reasoning course

**CAREER INFORMATION & EXPLORATION (JAG) (DOE 0522)**  
**2 Credits 2 Semesters Grades 11 & 12**

**Prerequisite:** Application Process

Jobs for America's Graduates (JAG) is a state-based national non-profit organization dedicated to preventing dropouts among young people who are most at-risk. In more than three decades of operation, JAG has delivered consistent, compelling results--helping nearly three-quarters of a million young people stay in school through graduation, pursue postsecondary education and

secure quality entry-level jobs leading to career advancement opportunities. Their mission helps to resolve our country's dropout and transition problems by expanding state organizations and local programs that help young people greatest at risk overcome barriers to graduation from high school and become college and career ready!

- Counts as an elective credit for all diplomas

**PERSONAL FINANCIAL RESPONSIBILITY (DOE 4540)**

**1 Credit      Grade 9**

**Prerequisite:** None

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

- Counts as a quantitative reasoning course
- Graduation Requirement for the class of 2028 and beyond



## **CONSUMER & FAMILY SCIENCE COURSES**

### **INTRODUCTION TO FASHION & TEXTILES I (DOE 5380)**

**1 Credit 1 Semester Grades 9-12**

Prerequisite: None

This course addresses knowledge and basic skills related to fashion and textiles. Topics of exploration include clothing and textiles selection, critical thinking applied to consumer options for sewing and related to equipment and tools; care and maintenance of textile products, equipment, and tools.

- Counts as an elective credit for all diplomas
- Fulfills a Fine Arts requirement for the Academic Honors Diploma
- A Career and Technical Course (CTE)

### **PRINCIPLES OF HUMAN SERVICES (DOE 7176)**

**2 Credits 2 Semesters Grades 9-12**

Prerequisite: None

Service learning extends to learning beyond the classroom into the community and provides students with an opportunity to use skills and knowledge in real-life situations. Engaging, research-based projects emphasize critical thinking, teamwork, and collaboration. Major projects use the national service-learning standards as guidelines. The standards include meaningful service, link to curriculum, reflection, diversity, youth voice, partnerships, progress monitoring and duration/intensity. Service-learning strengthens connections with the school and community, while encouraging a sense of caring for others. Students learn to be advocates, in addition to providing indirect and direct services to others. Cooking will play an integral part of our coursework as we explore the different aspects and careers of Human and Social Services.

- Counts as an elective credit for all diplomas
- Principles Course Human and Social Services Pathway

### **UNDERSTANDING DIVERSITY (DOE 7174)**

**2 Credits 2 Semesters Grades 10-12**

Prerequisite: None

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

- Counts as an elective credit for all diplomas
- “Concentrator A” Course Human and Social Services Pathway

### **RELATIONSHIPS AND EMOTIONS (DOE 7177)**

**2 Credit 2 Semesters Grades 10-12**

Prerequisite: Principles of Human Services

This course addresses the development and wellness of individuals and families throughout the life cycle. Topics include human development and wellness theories, principles and practices; roles, responsibilities, and functions of families and family members throughout the life cycle; individual and family wellness planning, prevention and management of illnesses and disease.

- Counts as an elective credit for all diplomas
- “Concentrator B” Course Human Social Services Pathway

**PRINCIPLES OF TEACHING (DOE 7161)**

**2 Credits                      2 Semesters                      Grades 9 - 12**

Prerequisite: None

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

- Counts as a Directed Elective or Elective for all diplomas
- Principles course for Education Careers Pathway

**CHILD AND ADOLESCENT DEVELOPMENT (DOE 7157)**

**2 Credits                      2 Semesters                      Grades 10 - 12**

Co/Prerequisite: Principles of Teaching

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.

- Counts as a Directed Elective or Elective for all diplomas
- “Concentrator A” Course Education Careers Pathway

**TEACHING AND LEARNING (DOE 7162)**

**2 Credits                      2 Semesters                      Grades 10-12**

Co/Prerequisite: Principles of Teaching, Child and Adolescent Development

Teaching and Learning provides students the opportunity to apply many of the concepts that they have learned throughout the Education Professions pathway. In addition to a focus on best practices, this course will provide an introduction to the role that technology plays in the modern classroom. Through hands-on

experience with educational software, utility packages, and commonly used microcomputer hardware, students will analyze ways to integrate technology as a tool for instruction, evaluation, and management.

- Counts as an elective credit for all diplomas
- “Concentrator B” Course Education Careers Pathway

**EDUCATION PROFESSIONS CAPSTONE (DOE 7267)**

**2 Credits    2 Semesters    Grades 11-12**

Prerequisite: Principles of Teaching, Child and Adolescent Development, and Teaching and Learning with a grade of “C” or better

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 282 Indiana Department of Education High School Course Titles and Descriptions: 2023-2024 have the opportunity to explore the topics of exceptional child and literacy development through children’s literature. Students will gain a deeper understanding of inclusive teaching techniques along with policies, theories, and laws related to special education. Students interested in pursuing a career in Elementary Education are encouraged to also study the benefits of using children’s literature in the classroom. This course may be further developed to include specific content for students interested in pursuing a career in secondary education. The course should include a significant classroom observation and assisting experience.

- Counts as an elective credit for all diplomas

**INTRODUCTION TO HOUSING AND INTERIOR DESIGN (DOE 5350)**

**1 Credit            1 Semester            Grades 9-12**

Prerequisite: None

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

## **FINE ARTS COURSES**

### **VISUAL ARTS**

#### **INTRODUCTION TO TWO-DIMENSIONAL ART (DOE 4000)**

**1 Credit 1 Semester Grades 9-12**

Prerequisite: None

Introduction to Two-Dimensional Art students will have introductory experiences in basic drawing skills, painting and color theory, commercial art (commercial design) and art occupations. Along with art production skills, art projects will stress the awareness and use of the elements and principles of design as applied to all areas of art in order to recognize well-designed two-dimensional art objects. To help students learn to enjoy and understand artists and art objects, art history, aesthetics, and art criticism will be introduced.

You do not have to already have a highly developed ability in art to enroll in the Introduction to Art Two-Dimensional course. A willingness to work is expected from all students and a willingness to interact with the teacher on assignments is necessary. Any students, who have a desire to learn more about various types of art, are encouraged to enroll in the Introduction to Two-Dimensional Art course. In all art classes, creativity is stressed and original ideas are encouraged.

- Counts as an Elective for All Diplomas
- Fulfills a Fine Art Credit for Academic Honors

#### **INTRODUCTION TO THREE-DIMENSIONAL ART (DOE 4002)**

**1 Credit 1 Semester Grades 9-12**

Prerequisite: None

In the Introduction to Three-Dimensional Art course students will have introductory experiences in ceramics, jewelry, and sculpture. Along with art production skills, art projects will stress the awareness and use of the elements and principles of design as applied to all areas of art in order to recognize well-designed three-dimensional art objects. To help students learn to enjoy and understand artists and art objects, art history, aesthetics, and art criticism will be introduced.

You do not have to already have a highly developed ability in art to enroll in the Introduction to Three-Dimensional Art course. A willingness to work is expected from all students and a willingness to interact with the teacher on assignments is necessary. Any students, who have a desire to learn more about various types of art, are encouraged to enroll in the Introduction to Three-Dimensional Art course. In all art classes, creativity is stressed and original ideas are encouraged.

- Counts as an Elective for All Diplomas
- Fulfills a Fine Art Credit for Academic Honors

#### **ART HISTORY I (DOE 4024)**

**1 Credit 1 Semester Grades 9-12**

Prerequisite: None

Note: This course is for students who do not have a strong interest in producing art but want to be able to more fully appreciate various types of art.

This non-studio art course seeks to increase the student's awareness, understanding, and tolerance of the visual arts by providing an introduction to the criticism, analysis, interpretation, and judgment of artwork. The major historical art movements will also be surveyed through characteristic examples of art styles using selected art works for analysis. The course will also stress the use of elements and principles of art as well as various theories of the purposes of art in order to make the understanding and appreciation of art more meaningful

- Counts as an Elective for all diplomas
- Fulfills a Fine Art Credit for Academic Honors

### **ADVANCED ART COURSES**

Even though the advanced art courses are organized according to media, the units are developed to provide experiences in seeing and feeling visual relationships, understanding about art objects, (art history), evaluating art products, (art criticism), aesthetics, as well as producing works of art.

#### **ADVANCED TWO-DIMENSIONAL ART (DOE 4004)**

**1 Credit 1 Semester Grades 9-12**

Prerequisite: Introduction to 2D art

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

- Counts as an Elective for All Diplomas
- Fulfills a Fine Art Credit for Academic Honors

#### **ADVANCED THREE-DIMENSIONAL ART (DOE 4006)**

**1 Credit 1 Semester Grades 9-12**

Prerequisite: Introduction to 3D art

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

- Counts as an Elective for All Diplomas
- Fulfills a Fine Art Credit for Academic Honors

### **CERAMICS (DOE 4040)**

**1 Credit 1 Semester Grades 10-12**

Prerequisite: Advanced Three-Dimensional Art completed with a "C" or better or have the instructor's written permission.

An introduction to the designing, forming and decorating processes, glaze formation, and the firing of functional pottery with emphasis on hand building techniques and some experience on the potter's wheel

- Counts as an Elective for All Diplomas
- Fulfills a Fine Art Credit for Academic Honors

### **DIGITAL DESIGN (DOE 4082)**

**1 Credit 1 Semester Grades 10-12**

Prerequisite: Either Advanced Two-Dimensional Art OR Advanced Three-Dimensional Art completed with a "C" or better or have the instructor's written permission.

Note: Because of a limited number of computer workstations available, a student's attendance, previous art course grades, and the student's remaining time in school, will all be considered in gaining admission to this course.

In this course, students are introduced to the computer as a working tool of the visual artist. Students will learn how to create and manipulate images using Adobe Photoshop. Additional emphasis will be placed on importing visual data. This course does not emphasize computer programming or computer languages

- Counts as an Elective for All Diplomas
- Fulfills a Fine Art Credit for Academic Honors

### **DRAWING (DOE 4060)**

**1 Credit 1 Semester Grades 10-12**

Prerequisite: Advanced Two-Dimensional Art completed with a "C" or better or have the instructor's written permission.

Drawing is an introduction to basic drawing media with an emphasis on developing skill, visual sensitivity, and an awareness to form. Included will be drawing from still life, nature, human figure, and imagination. Media to be used includes the use of pencil, chalk & pastels, charcoal, and pen & ink

- Counts as an Elective for All Diplomas
- Fulfills a Fine Art Credit for Academic Honors

### **FIBER ARTS (DOE 4046)**

**1 Credit 1 Semester Grades 10-12**

Prerequisite: Advanced Two-Dimensional Art completed with a "C" or better or have the instructor's written permission.

Fiber Arts is a course based on the Indiana Academic Standards for Visual Art. Students in fiber arts 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 fiber art works utilizing processes such as loom and off-loom construction, dyeing, coiling, and stitchery. 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.

- Counts as a directed elective or elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

### **JEWELRY (DOE 4042)**

**1 Credit      1 Semester      Grades 10-12**

Prerequisite: Advanced Three-Dimensional Art completed with a "C" or better or have the instructor's written permission.

Jewelry is an introduction to the design and construction of original jewelry in various media. Forming processes including piercing, construction, forging, repousse, and enameling will be studied

- Counts as an Elective for All Diplomas
- Fulfills a Fine Art Credit for Academic Honors

### **PAINTING (DOE 4064)**

**1 Credit      1 Semester      Grades 10-12**

Prerequisite: Advanced Two-Dimensional Art completed with a "C" or better or have the instructor's written permission.

Recommendation: Drawing may be of value to students with limited drawing skills before enrolling in Painting .

Painting I is an introduction to the study of design, physical and emotional characteristics of color, and painting techniques including watercolor and acrylics. Art appreciation and art criticism, historical and contemporary methods of painting will be surveyed

- Counts as an Elective for All Diplomas
- Fulfills a Fine Art Credit for Academic Honors

### **PRINTMAKING (DOE 4066)**

**1 Credit      1 Semester      Grades 10-12**

Prerequisite: Advanced Two-Dimensional Art completed with a "C" or better or have the instructor's written permission.

Printmaking is a course based on the Indiana Academic Standards for Visual Art. Students in printmaking engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production that lead to the creation of portfolio quality works. Students apply media, techniques, and processes with sufficient skill to communicate intended meaning. They create abstract and realistic prints using a variety of materials such as linocut, woodcut, stencil, silkscreen, photo silkscreen, and mono-print. They utilize processes such as etching, relief, and lithography to explore a variety of ideas and problems. Students reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational

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

- Counts as an Elective for All Diplomas
- Fulfills a Fine Art Credit for Academic Honors

**SCULPTURE (DOE 4044)**

**1 Credit 1 Semester Grades 10-12**

Prerequisite: Advanced Three-Dimensional Art completed with a "C" or better or have the instructor's written permission.

Sculpture is an introduction to the design of sculpture and the fundamental processes in modeling and casting, construction (assemblage), and carving

- Counts as an Elective for All Diplomas
- Fulfills a Fine Art Credit for Academic Honors

[Back to Table of Contents](#)



## MUSIC

### *DEPARTMENT RESTRICTIONS:*

Bands and Orchestra require middle school participation as a prerequisite for high school groups. Students with no prior experience who wish to learn to play a musical instrument should contact the appropriate music teacher.

### **MUSIC HISTORY AND APPRECIATION I (DOE 4206)**

**1 Credit          1 Semester          Grades 9-12**

Prerequisite: None

Note: This class is open to non-performers as well as singers and instrumentalists.

This course is designed to help students understand and gain a better appreciation for all types of music with an emphasis on choral and instrumental music. A great emphasis is placed on listening to works from composers like Bach, Berlioz, Verdi, and Copland. Musical forms are discussed as well as techniques used by composers that make each work unique and original. Finally, we connect the evolution of classical music to the popular music of today. In class presentations are an integral part of the student's performance in this class.

- An elective for all diplomas
- Fulfills a Fine Arts credit for the Academic Honors diploma

### **MUSIC THEORY (DOE 4208)**

**1 Credit   1 Semester   Grades 9-12**

Requirement: While this class is open to non-performers, some prior music reading experience is necessary. If you are not presently enrolled in a music ensemble, approval from the instructor is necessary for enrollment.

The purpose of this course is to give students an in-depth knowledge and understanding of how to read and notate music through the learning of scales, scale patterns, chords, melody, harmony, ear training, composition, and much more. This class will also incorporate listening to music examples from various periods in history, as well as music in today's society.

- An elective for all diplomas
- Fulfills a Fine Arts credit for the Academic Honors diploma

**BANDS**

**BEGINNING CONCERT BAND (DOE 4160)**

**1 Credit 1 Semester Grades 9-12**

Requirement: Middle School band experience is highly recommended. If a student has no previous school music training, then an audition is required.

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

- An elective for all diplomas
- Fulfills a Fine Arts credit for the Academic Honors diploma

**INTERMEDIATE CONCERT BAND (DOE 4168)**

**1 Credit 1 Semester Grades 9-12**

Requirement: Middle School band experience is highly recommended. If a student has no previous school music training, then an audition is required.

The Intermediate Band at MHS puts a particular emphasis on developing individual performance skills on their chosen instrument as well as reading musical notation in a variety of styles. Students will also develop the skills necessary to critique their own performance as well as others. Performances include home football games, Pep Assemblies, and the Fall Foliage Parade.

- An elective for all diplomas
- Fulfills a Fine Arts credit for the Academic Honors diploma

**ADVANCED CONCERT BAND (DOE 4170)**

**1 Credit 1 Semester Grades 9-12**

Requirement: One Semester of Intermediate Concert Band. Students without the Semester of Intermediate Band need approval from the instructor upon successful completion of an audition.

This band is a group of highly trained, dedicated musicians who will sample and perform a variety of concert band literature. Particular emphasis will be put on developing individual performance skills on their chosen instrument as well as reading musical notation in a variety of styles. Students will also develop the skills necessary to critique their own performance as well as others. Required performances include Community Concerts, ISSMA Band Contests, and home basketball games.

- An elective for all diplomas
- Fulfills a Fine Arts credit for the Academic Honors diploma

**JAZZ ENSEMBLE I-II-III (DOE 4164)**  
**2 Credits 2 Semesters Grades 9-12**

Requirement: One Semester of Intermediate Concert Band. Students without the Semester of Intermediate Band need approval from the instructor upon the successful completion of an audition.

Jazz Band provides an opportunity for exceptional musicians to study and perform music from all styles of the jazz idiom. Students who play saxophone, trumpet, trombone, or rhythm section instruments (piano, bass, drums, and guitar) are eligible to audition. Students will learn appropriate performance techniques, and gain an understanding of chord structure and progression as it relates to improvisation. Particular emphasis will be placed on the 12 Bar Blues. Required performances include Community Concerts, ISSMA Band Contests, and local Jazz Festivals.

- An elective for all diplomas
- Fulfills a Fine Arts credit for the Academic Honors diploma

**PIANO AND ELECTRONIC KEYBOARD (DOE 4204)**  
**1 Credit 1 Semester Grades 9-12**

Prerequisite: None

High school students taking this course are offered the opportunity to develop music proficiency and musicianship. The Piano Course will focus on; Music Reading, Rudiments of the Piano, Finger Flexibility and Strength. The Instruction is designed so that students are enabled to connect, examine, imagine, define, try, extend, refine, and integrate music study in other subject areas on a beginning level. Students: (1) perform with proper posture, hand position, fingering, rhythm, and articulation; (2) compose and improvise melodic and harmonic material; (3) create a perform simple accompaniments; (4) listen to, analyze, sight-read, and study the literature performed; (5) study the elements of music as exemplified in a variety of styles; and (6) make interpretive decisions.

- An elective for all diplomas
- Fulfills a Fine Arts credit for the Academic Honors diploma

**ORCHESTRA**

**BEGINNING ORCHESTRA (CONCERT) (DOE 4166)**  
**1 Credit 1 Semester Grades 9-12**

Prerequisite: Must have completed at least two years of Intermediate level Middle School Orchestra

Beginning Orchestra is based on the Indiana Academic Standards for High School Instrumental Music. Students in this ensemble are provided with a balanced comprehensive study of music through the orchestra, string and/or full orchestra, which develops skills in the psychomotor, cognitive, and affective domains. Ensemble and solo activities are designed to develop and refine elements of musicianship including tone production, technical skills, intonation, music reading skills, listening skills, analyzing music, studying historically significant styles of orchestral 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.

- An elective for all diplomas
- Fulfills a Fine Arts credit for the Academic Honors diploma

**INTERMEDIATE ORCHESTRA (CONCERT) (DOE 4172)**

**1 Credit 1 Semester Grades 9-12**

Prerequisite: Beginning High School Orchestra

A variety of string orchestral ensemble literature is played as well as full orchestra literature. Wind and percussion players are selected by directors on the basis of playing ability and interest. Acquaints students with the great volume of orchestral literature; performance before school and community

- An elective for all diplomas
- Fulfills a Fine Arts credit for the Academic Honors diploma

**ADVANCED ORCHESTRA (CHAMBER) (DOE 4174)**

**2 Credits 2 Semesters Grades 9-12**

Prerequisite: Instructor Approval

*\*student signs up for the full year; student must audition and private lessons are highly recommended*

A variety of string orchestral ensemble literature is played as well as full orchestra literature. Wind and percussion players are selected by directors on the basis of playing ability and interest. Acquaints students with the great volume of orchestral literature; performance before school and community

- An elective for all diplomas
- Fulfills a Fine Arts credit for the Academic Honors diploma

**CHOIRS**

Acquaints the student with the fundamentals of the singing process; experience of a wide variety of vocal styles in choral music; and performances before school and community.

**BEGINNING CHORUS (Mbark) (DOE 4182)**

**2 Credits 2 Semesters Grades 9-12**

Prerequisite: None

This course is designed to meet the needs of students entering the choral program for the first time or those in need of further skill building before entering an audition group. Activities include part-singing, vocal development, basic musicianship and understanding of the rehearsal process. Emphasis is on individual development at individual rates. No prior experience is necessary

- An elective for all diplomas
- Fulfills a Fine Arts credit for the Academic Honors diploma

**INTERMEDIATE CHORUS (Mpact) (DOE 4186)**

**2 Credits 2 Semesters Grades 9-12**

Prerequisite: Audition

*The student signs up for the full year*

Involves the processes of developing choral skills obtained in Beginning Chorus and Middle School Choirs. This course is designed around three-part women's voices and the group performs SSA music from many time periods and of many styles. Emphasis is placed on part-singing, vocal production, musicianship and understanding of the rehearsal process. Solo singing and choreographed movement may be part of this course

- An elective for all diplomas
- Fulfills a Fine Arts credit for the Academic Honors diploma

**ADVANCED CHORUS (Mbassadors) (DOE 4188)**

**2 Credits 2 Semesters Grades 9-12**

Prerequisite: Audition

*The student signs up for the full year*

The advanced group stresses performing and understanding of all types of choral music. Students continue to refine their individual skills in the areas of part-singing, vocal development, musicianship and interpretation. Advanced Chorus is an SATB choral group that performs Group I and II choral literature. Emphasis is placed on small ensembles (such as barbershop quartets, girls' triple trio, etc.) within this larger group. Solo singing may be part of this course

- An elective for all diplomas
- Fulfills a Fine Arts credit for the Academic Honors diploma

**VOCAL JAZZ (Mprov) (DOE 4184)**

**2 Credits 2 Semesters Grades 9-12**

Prerequisite: Audition

Note: Members are selected by audition and the group is limited in size by availability of qualified singers. Performances and after-school rehearsals are a major part of the course requirement. Freshmen may audition for this group only with the recommendation of their middle school choir director.

*The student signs up for the full year*

The Vocal Jazz ensemble is an extremely advanced jazz music ensemble. While students will perform music from any genre's, the primary focus will be on performing college level vocal jazz music. The singing demands are considerable in both flexibility of style, and ability to sing independently. Regular preparation of solos is required, and independent learning is required. This group has a demanding performance schedule, and due to its smaller nature, absences must be kept at a minimum

- An elective for all diplomas
- Fulfills a Fine Arts credit for the Academic Honors diploma

[Back to Table of Contents](#)

**THEATRE**

**ADVANCED THEATRE I (DOE 4260)**

**1 Credit    1 Semester                      Grades 10-12**

The purpose of ADVANCED THEATRE I is to develop understanding, appreciation and critical perceptions of the theatrical event. The course will approach theater as an art form, an entertainment medium and as a vehicle for self-expression. Emphasis will be placed on the history of theater and the pervasive nature of theater. The course may also require attendance at theatrical events to offer first hand experience in theater arts.

- Counts as an elective credit for all diplomas
- Fulfills a Fine Art credit for the Academic Honors diploma

**ADVANCED THEATRE II (DOE 4260)**

**1 Credit            1 Semester                      Grades 10-12**

Prerequisite: Advanced Theatre I

The purpose of ADVANCED THEATRE II is to develop understanding, appreciation and critical perceptions of the theatrical event. The course will approach theater as an art form, an entertainment medium and as a vehicle for self-expression. Emphasis will be placed on the creative process, acting, directing, playwriting, theater technology, costume design, scenic design, lighting design, and script analysis. Active participation in the playwriting, acting, directing and designing processes will be provided. Additionally, students explore career opportunities in the theater and begin to develop a portfolio of their work. The course may also require attendance at theatrical events to offer first hand experience in theater arts.

- Counts as an elective credit for all diplomas
- Fulfills a Fine Art credit for the Academic Honors diploma
- Potential Dual Credit through Ivy Tech (3 college credits--must take 1 and 2 in the same year for Dual Credit)

## **WORLD LANGUAGE COURSES**

### **WORLD LANGUAGES ARE TAUGHT AS COLLEGE PREPARATORY CLASSES. WORLD LANGUAGE PLACEMENT IS BASED ON ENGLISH CLASS PLACEMENT.**

#### **FRENCH ADVANCED PLACEMENT (1, 2) H (DOE 2032) 2 Credits 2 Semesters Grades 11-12**

Prerequisite: French III

Recommendations: Strongly recommend a grade of "C" in French III or teacher's written approval.

Students will be able to communicate orally or in writing with members of French-speaking cultures on a variety of topics. They will also be able to analyze differences between identified grammatical structures of English and French. Students will be able to appreciate and comprehend longer readings, plays, and films representative of French culture.

- Counts as a directed elective credit for all diplomas
- Fulfills the World Language AND AP requirement for the Academic Honors diploma

#### **FRENCH V (LEVEL V) (A, B) H (DOE 2028) 2 Credits 2 Semesters Grade 12**

Prerequisite: French Advanced Placement

Recommendations: Strongly recommend a grade of "C" in French AP or teacher's written approval. Students who are not successful in this course should not continue into the next Semester.

Using previous levels of knowledge and skills and applying more advanced structures, students will be able to comprehend and discuss cultural readings and authentic texts. Students will be able to present information, concepts, and ideas to an audience of listeners or readers on a variety of topics. In addition to describing cultural practices and behaviors, the students will demonstrate knowledge of topics such as the fine arts, literature, and history.

- Counts as a directed elective credit for all diplomas
- Fulfills the World Language requirement for the Academic Honors diploma

#### **SPANISH I (A, B) (DOE 2120) 2 Credits 2 Semesters Grades 7 - 12**

Prerequisite: English class placement determines enrollment.

Recommendations: This course is considered an academic-level (pre-AP) course. Students planning to get an Academic Honors diploma should take this class. Students who are not successful in this course should not continue into the next Semester or the next year.

Students will be able to engage in simple conversations or write simple texts, asking and answering basic questions concerning greetings, school schedules, daily activities, household chores, food, and family. In listening, speaking, reading, and writing, students will be able to use and understand basic structures of

the Spanish language. Students will be able to compare and contrast Hispanic culture and American culture as reflected in the topics mentioned.

- Counts as a directed elective credit for all diplomas
- Fulfills two credits toward the World Language requirement for the Academic Honors diploma

**SPANISH II (A, B) (DOE 2122)**

**2 Credits 2 Semesters Grades 8-12**

Prerequisite: Spanish I

Recommendations: Strongly recommend a grade of "C" in Spanish I or teacher's written approval. Students who are not successful in this course should not continue into the next Semester or the next year.

While using Spanish I knowledge and skills and extending the experience of reading, writing, listening, and speaking, students will be able to engage in basic conversations or write simple descriptions concerning their health, daily routine, giving directions, and expressing preferences. Students will be able to use and understand more basic structures in the language. Students will continue to identify cultural practices and behaviors in Hispanic culture.

- Counts as a directed elective credit for all diplomas
- Fulfills two credits toward the World Language requirement for the Academic Honors diploma

**SPANISH III (A, B) H(DOE 2124)**

**2 Credits 2 Semesters Grades 9-12**

Prerequisite: Spanish II

Recommendations: Strongly recommend a grade of "C" in Spanish II or teacher's written approval. Students who are not successful in this course should not continue into the next Semester or the next year.

Using previous levels of knowledge and skills and applying more advanced structures, students will be able to comprehend and discuss cultural readings and authentic texts. Students will be able to present information, concepts, and ideas to an audience of listeners or readers on a variety of topics. In addition to describing cultural practices and behaviors, the students will demonstrate knowledge of topics such as the fine arts, literature, and history.

- Counts as a directed elective credit for all diplomas
- Fulfills the World Language requirement for the Academic Honors diploma

**SPANISH ADVANCED PLACEMENT (A, B) H (DOE 2132)**

**2 Credits 2 Semesters Grades 10-12**

Prerequisite: Spanish III

Recommendations: Strongly recommend a grade of "C" in Spanish III or teacher's written approval.

Students will be able to communicate orally or in writing with members of the foreign culture on a variety of topics. They will also be able to analyze differences between identified grammatical structures of



English and Spanish. Students will be able to appreciate and comprehend longer readings, plays, and films representative of Hispanic culture.

- Counts as a directed elective credit for all diplomas
- Fulfills the World Language AND AP requirement for the Academic Honors diploma

**SPANISH V (A, B) H (DOE 2128)**

**2 Credits 2 Semesters Grade 12 [11-12 in 2026-2027 school year]**

Prerequisite: Spanish AP

Recommendations: Strongly recommend a grade of "C" in Spanish AP or teacher's written approval.

Students will be able to communicate orally or in writing with members of the foreign culture on a variety of topics. They will also be able to analyze differences between identified grammatical structures of English and Spanish. Students will be able to appreciate and comprehend longer readings, plays, and films representative of Hispanic culture.

- Counts as a directed elective credit for all diplomas

**SPANISH VI (A, B) H (DOE 2130) [to be offered in 2027-2028 school year]**

**2 Credits 2 Semesters Grade 12**

Prerequisite: Spanish V

Recommendations: Strongly recommend a grade of "C" in Spanish VI or teacher's written approval.

Students will be able to communicate orally or in writing with members of the foreign culture on a variety of topics. They will also be able to analyze differences between identified grammatical structures of English and Spanish. Students will be able to appreciate and comprehend longer readings, plays, and films representative of Hispanic culture.

- Counts as a directed elective credit for all diplomas

**AMERICAN SIGN LANGUAGE I A, B (DOE 2156)**

**2 Credits 2 Semesters Grades 9-12**

Prerequisite: None

The introductory material and class instruction in the first year of American Sign Language will give students a peek into Deaf culture while providing the basic vocabulary, grammar, and expressive practice necessary for communication with other ASL users.

- Counts as a directed elective credit for all diplomas

- Fulfills two credits toward the World Language requirement for the Academic Honors diploma

**AMERICAN SIGN LANGUAGE II (A, B) (DOE2158)**

**2 Credits 2 Semesters Grades 10-12**

Prerequisite: ASL I and a “C” or better in ASL I

American Sign Language II is an extension of basic aspects taught in American Sign Language I – basic vocabulary, structure, syntax, and grammar. Students will continue to focus on fingerspelling, numbers, facial grammar, and sentence structure while developing the conversational/cultural behaviors necessary to hold a beginning-level conversation. More examples of Deaf culture will be presented to aid student development of awareness and appreciation for the unique language. Students will also have the opportunity to build receptive and expressive sign vocabulary, use signing space, and further use of non-manual components of ASL grammar including facial expression and body postures.

- Counts as a directed elective credit for all diplomas
- Fulfills the World Language requirement for the Academic Honors diploma

**AMERICAN SIGN LANGUAGE III (A, B) (DOE 2162)**

**2 Credits 2 Semesters Grades 11-12**

Prerequisite: ASL II and a “C” or better in ASL II

American Sign Language III is a continuation of American Sign Language I and II expanding the emphasis of ASL grammar, vocabulary development, conversational skills, and Deaf Culture. Students will enhance both expressive and receptive skills by preparing short stories, narratives, dialogue, and describing general surroundings. Students will learn how to express more abstract concepts in ASL and understand conversational behaviors and various activities involved in Deaf Culture.

- Counts as a directed elective credit for all diplomas
- Fulfills the World Language requirement for the Academic Honors diploma

[Back to Table of Contents](#)

## **HEALTH/PHYSICAL EDUCATION COURSES**

**\*Note: a maximum of 8 credits may be awarded, in total, for all Elective PE courses**

### **PHYSICAL EDUCATION I (DOE 3542)**

**1 Credit 1 Semester Grades 9-10**

Prerequisite: None

Physical Education I helps to identify what a student should know and be able to do as a result of a physical education program. The goal is to maintain appropriate levels of cardio-respiratory endurance, muscular strength and endurance, flexibility, and body composition necessary for a healthy and productive life. Physical education I focuses on instructional strategies which provide students with opportunities to actively participate in at least four (4) of the following: team sports; dual sports activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance. Ongoing assessment includes both written and performance-based skill evaluations as well as active participation on a daily basis.

- A graduation requirement for all diplomas
- A component of all career pathways

### **PHYSICAL EDUCATION II (DOE 3544)**

**1 Credit 1 Semester Grades 9-10**

Prerequisite: The student must successfully complete Physical Education I

Physical Education II builds on the foundation laid in Physical Education I. PE II offers the student the chance to develop or refine skills and attitudes that promote lifelong fitness. Without repeating offerings from Physical Education I, it provides students with opportunities to actively participate in four (4) of the following areas: team sports; dual sport activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance within the framework of lifetime physical activities and fitness. Ongoing assessment includes both written and performance-based skill evaluation as well as active participation on a daily basis.

- A graduation requirement for all diplomas
- A component of all career pathways

### **ELECTIVE PE: INTRODUCTION TO WEIGHT TRAINING & FITNESS (DOE 3560\*)**

**1 Credit 1 Semester Grades 10-12**

Prerequisite: The student must have successfully completed Physical Education I & II

During this course the student will learn the basic principles of weight training as related to lifelong fitness. This will include the use of machines and free weights. The course will also include aerobics, running, stretching, endurance, body composition and a variety of activities that will promote lifelong fitness. This course will also help the student identify where such activities could be continued beyond this course and high school in general.

- This class may only be taken once and cannot be audited or repeated for credit
- An Elective for All diplomas
- A component of all career clusters

**ELECTIVE PE: STRENGTH TRAINING & CONDITIONING FOR ATHLETES (DOE 3560\*)**  
**1 Credit      1 Semester      Grades 9-12**

Prerequisite: Must be currently on an IHSAA sport roster and recommended by the head coach through the athletic office.

Note: May be taken two times per year.

Can not be taken by a senior who has finished his/her playing career at MHS.

Can not be taken by a senior who was not on a roster for a sport his/her junior year.

Classes will be grouped in like sports and assigned to certain Semesters requested by respective coaches.

During this course the student will learn the basic principles of weight training. This will include the use of machines and free weights. The student will then use these devices to increase his or her strength, power, body tone, or speed.

- An Elective for All diplomas
- A component of all career clusters

**ELECTIVE PE: INTRODUCTION TO WEIGHT TRAINING & FITNESS (DOE 3560\*)**  
**1 Credit      1 Semester      Grades 10-12**

Prerequisite: The student must have successfully completed Physical Education I & II

During this course the student will learn the basic principles of weight training as related to lifelong fitness. This will include the use of machines and free weights. The course will also include aerobics, running, stretching, endurance, body composition and a variety of activities that will promote lifelong fitness. This course will also help the student identify where such activities could be continued beyond this course and high school in general.

- This class may only be taken once and cannot be audited or repeated for credit
- An Elective for All diplomas

**ELECTIVE PE: ACTIVITIES FOR A LIFETIME (DOE 3560\*)**  
**1 Credit      1 Semester      Grades 11-12**

Prerequisite: The student must have successfully completed Physical Education I & II

This one Semester course is designed to give the student an introduction to a variety of activities that could be continued long after the student is out of the school setting. Such activities as golf, volleyball, bowling, archery, and other active pursuits will be explored during the Semester. This class may only be taken once and cannot be audited or repeated for credit

- An Elective for All diplomas
- A component of all career clusters

**ELECTIVE PE: UNIFIED SPORTS (DOE 3560\*)**

**1 Credit 1 Semester Grades 11-12**

***THIS COURSE IS NOT OFFERED DURING THE SCHOOL DAY-PARTICIPATION IS EXTRA CURRICULAR***

Prerequisite: IHSAA Athletic Physical on File, Appropriate Forms Completed

To provide year-round sports training and athletic competition in a variety of Olympic-type sports for children and adults with intellectual disabilities, offering them continuing opportunities to develop physical fitness, demonstrate courage, experience joy and participate in a sharing of gifts, skills and friendship with their families, other Special Olympics athletes and the community.

Unified Sports uses the power of sport as a catalyst for social change. Through sport, we challenge society. By highlighting how the needs of people with ID are not being met, we expose inequity and exclusion. By drawing attention to the gifts of people with ID, we break down misperceptions and tackle negative attitudes. Unified Sports will open hearts and minds towards people with intellectual disabilities and create inclusive communities across the state and throughout the world.

- An Elective for All diplomas
- A component of all career clusters

**HEALTH AND WELLNESS EDUCATION (DOE 3506)**

**1 Credit 1 Semester Grades 9-12**

Prerequisite: None

Health & Wellness provides the basis to help students adopt and maintain healthy behaviors. Health education contributes directly to a student's ability to successfully practice behaviors that protect and promote health and avoid or reduce health risks. This course includes the application of the following priority areas: promoting personal health and wellness; physical activity; healthy eating; promoting safety and preventing unintentional injury and violence; promoting mental and emotional health; a tobacco-free lifestyle and an alcohol and other drug-free lifestyle; and promoting human development and family health. This course provides students with the knowledge and skills of health and wellness core concepts, analyzing influences, accessing information, interpersonal communication, decision-making and goal-setting skills, health-enhancing behaviors, and health and wellness advocacy skills.

- A graduation requirement for all diplomas
- A component of all career pathways

**3500 Advanced Health Education (DOE 3500)**

**1 Credit 1 Semester Grades 9-12**

Advanced Health and Wellness, an elective course that is aligned to Indiana's Academic Standards for Health and Wellness, provides advanced knowledge and skills to help students adopt and maintain healthy behaviors. Through a variety of instructional strategies, students practice the development of functional advanced health information (essential concepts); and 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. Advanced Health and Wellness provides students with an in-depth study of promoting personal health and wellness, physical activity, healthy eating; promoting safety and prevention of unintentional injury and violence; promoting mental and

emotional health, a tobacco, alcohol, and other drug-free lifestyle; and promoting human development and family health. The scientific components of health and wellness, health issues and concerns, health risk appraisals, individual wellness plans, health promotion, and health careers are expanded and explored within the context of the course. This course provides students with the advanced 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.

#### **PE WAIVER APPLICATION PROCESS**

One Credit may be earned through a completed season of any MHS sponsored IHSAA sport, cheerleading, dance team, marching band, winter drumline, winter guard, show choir and the law enforcement class.

The student may earn 1 credit in PE I and 1 credit in PE II for any one of the activities listed above.

It is the student's responsibility to pick up the waiver in the Guidance office and turn it in to their coach.

#### **JUNIOR RESERVE OFFICER TRAINING CORPS (JR ROTC) (DOE 0516)**

**2 Credits            2 Semesters            Grades: 9 - 12**

This course is designed to develop: (1) citizenship and patriotism, (2) self-discipline, (3) physical fitness, (4) reliance and leadership, and (5) the skills used in decision making, communications, and problem-solving. The course content and experiences enable the students to understand the role of the military in support of national objectives and to become familiar with basic military knowledge, gender equity issues, benefits, and requirements. Topics to be included in the course are: (1) military history, (2) ROTC in the military, (3) substance abuse, (4) map reading, (5) marksmanship and firearm safety, (6) military drill, (7) field activities, (8) reserve components, and (9) first aid and hygiene. Opportunities are provided to explore the qualities and traits of courage, self-sacrifice, and integrity. Junior Reserve Officer Training Corps programs must be approved by and meet the requirements of the appropriate military organization.

- Counts as an Elective for all diplomas
- A PE Waiver can be earned
- Repeatable up to 8 credits

## **LANGUAGE ARTS COURSES**

All English Students are placed in English upon entering grade 9.

*Placement is determined through available standardized testing results from various sources, eighth grade language arts/reading grades, and teacher recommendation. Students are placed into the English or English Honors curriculums based on these scores which do include a reading placement level.*

Student levels may change based on teacher recommendation. These changes are made by the teacher of record only to the English department chair and the guidance department simultaneously at the end of a Semester.

All students must have eight credits in Language Arts. Core English curriculum is recommended freshman through senior year.

### **ENGLISH 9 – 12 LANGUAGE, LITERATURE, COMPOSITION**

Students enrolled in English 9, English 10, English 11, and English 12 study English with an emphasis on the tie-in between reading and writing literacy.

▶ Students in these courses are enrolled in a college preparatory course.

▶ Students learn writing and composition skills through practice, feedback, and final critique. Writing includes a focus on the 6+1 writing traits -- generation of ideas, organization of the paper and mechanical writing conventions, voice of the writer, writer's word choice and sentence fluency, and final presentation. The writing process of prewriting, rough draft, revision, editing, and final product is reinforced. Students learn to collect content appropriate for analysis of literature, informal writing, and formal research papers. The Modern Language Association [MLA] is the predominant style used, but American Psychological Association [APA] style is also noted.

▶ Appropriate grade level vocabulary lists are used to maintain a consistent vocabulary instruction, but teachers also supplement with additional words from the student reading.

▶ All genres of literature are studied throughout the curriculum. Students read and interpret poetry, essay, nonfiction, fiction [short story and novel], and drama. Through the study of the literature, students mesh understanding through oral and written strategies as well as develop higher level thinking skills.

### **ENGLISH HONORS 11 – 12 LANGUAGE, LITERATURE, COMPOSITION**

Students enrolled in English 11 Honors and English 12 Honors study English with an emphasis on the tie-in between reading and writing literacy.

" Students learn writing and composition skills through practice, feedback, and final critique. Writing includes a focus on the 6+1 writing traits -- generation of ideas, organization of the paper and mechanical writing conventions, voice of the writer, writer's word choice and sentence fluency, and final presentation. The writing process of prewriting, rough draft, revision, editing, and final product is reinforced. Students learn to collect content appropriate for analysis of literature, informal writing, and formal research papers. The Modern Language Association [MLA] is the predominant style used, but American Psychological Association [APA] style is also noted

Appropriate grade level vocabulary lists are used to maintain a consistent vocabulary instruction, but teachers also supplement with additional words from the student reading.

» All genres of literature are studied throughout the curriculum. Students read and interpret poetry, essay, nonfiction, fiction [short story and novel], and drama. Through the study of the literature, students mesh understanding through oral and written strategies as well as develop higher level thinking skills. (DOE 1002, 1004, 1006, AND 1008)

**PRE ADVANCED PLACEMENT ENGLISH 9 (A, B) (DOE 1002)**

**2 Credits      2 Semesters      Grade 9**

Honors English 9 is geared toward students who have accelerated language skills and a positive, self motivated work ethic. Students who take this course should be detail-oriented critical thinkers, close readers, and developing writers with the desire to improve their English skills. The content includes all of the language arts: literature and nonfiction reading and analysis, composition in a variety of styles and forms, research, vocabulary study, effective speaking, and grammar. The class includes in-depth study of classic and modern American literature. Students should come to the class with a working knowledge of literary genres, composition techniques, and fundamentals of grammar. Projects in the class involve a variety of independent and collaborative activities.

Grades in this class are primarily based on compositions and in class discussions, not tests.  
Fulfills an English/Language Arts credit

**PRE ADVANCED PLACEMENT ENGLISH 10 (A, B) (DOE 1004)**

**2 Credits      2 Semesters      Grade 10**

Prerequisite: Grade 9 Honors English with freshman teacher recommendation, guidance approval.

Note: Students with a “C” average in English may not be accepted into the course.

Honors English 10 is geared toward students who have accelerated language skills and a positive, self motivated work ethic. Students who take this course should be detail-oriented critical thinkers, close readers, and developing writers with the desire to improve their English skills. The content includes all of the language arts: literature and nonfiction reading and analysis, composition in a variety of styles and forms, research, vocabulary study, effective speaking, and grammar. The class includes in-depth study of classic and modern American literature. Students should come to the class with a working knowledge of literary genres, composition techniques, and fundamentals of grammar. Projects in the class involve a variety of independent and collaborative activities.

Grades in this class are primarily based on compositions and in class discussions, not tests.

- Fulfills an English/Language Arts credit



**ADVANCED PLACEMENT ENGLISH/LANGUAGE AND COMPOSITION, (A, B) (H) (DOE 1056)**

**2 Credits          2 Semesters          Grade 11**

Prerequisite: Grade 10 Honors English with sophomore teacher recommendation, guidance approval.

Note: Students with a “C” average in English may not be accepted into the course.

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

Grades in this class are primarily based on compositions and in class discussions, not tests.

- Fulfills an English/Language Arts credit AND AP credit for Academic Honors

**ADVANCED PLACEMENT ENGLISH/LITERATURE AND COMPOSITION, (A, B) (H) (DOE 1058)**

**2 Credits          2 Semesters          Grade 12**

Prerequisite: Grade 11 Honors English with junior teacher recommendation or AP Language and Composition, guidance approval.

Note: Students with a “C” average in English may not be accepted into the course.

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

Grades in this class are primarily based on compositions and in class discussions, not tests.

- Fulfills an English/Language Arts credit AND AP credit for Academic Honors

**BIBLICAL LITERATURE (DOE 1022)**

**1 Credit    1 Semester    Grades 11-12**

Prerequisite: Open to students in Honors English with at least a “C” average

This course is a non-religious approach to the study of selections from the Bible as literature and other literature with Biblical allusions. Good note taking and reading skills are mandatory. Emphasis is on literary analysis through the authors, plot, characters, themes, and literary techniques in the works read. Work will focus on the historical, biographical, cultural, and geographical aspects of each book read. Writing and discussion opportunities are included. Students should enjoy reading and analysis of literature.

- Fulfills an English/Language Arts credit for all diplomas

**BIOGRAPHIES (DOE 1024)**

**1 Credit    1 Semester    Grades: 11-12**

Recommendations: Open to students in Honors English with at least a “C” average

Biographies, a course based on the Indiana Academic Standards for English/Language Arts, is a study of outstanding examples of biographical literature from various historical eras, cultures, and authors (both men and women). Students examine autobiographies, legendary narratives of historical figures, and hagiographies (venerated persons). Students analyze works written for different purposes, such as moralistic, inspirational, entertainment, and cautionary. Students analyze the assumptions of the author and the relationship between the author and the subject of the biography in order to determine reliability and validity of the work.

Fulfills an English/Language Arts credit for all diplomas

**CLASSICAL LITERATURE (DOE 1026)**

**1 Credit    1 Semester    Grades 11-12**

Prerequisite: English 9, English 10, or teacher recommendation

Classical Literature, a course based on the Indiana Academic Standards for English/Language Arts, is a study of Greek and Roman Empire literature by the major authors, such as Aristotle, Cicero, Dante, Euripides, Homer, Ovid, Plato, Plutarch, Sappho, Sophocles, St. Augustine, Virgil, and others. Students examine a variety of literary genres, such as tragedy, comedy, epic, lyric, novel, oratory, and others. Students analyze themes as they relate to the transition from oral to literate cultures, the emergence of cities and empires, the use of mythology, and the rise and fall of democracy. Students analyze how classical literary patterns, themes, and conventions have influenced modern literature. Course can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum

- Fulfills an English/Language Arts credit for all diplomas

**COMPOSITION FILM LITERATURE (DOE 1090)**

**2 CreditS    2 Semesters    Grades 11-12**

Prerequisite: English 9, English 10, or teacher recommendation

Composition, a course based on the Indiana Academic Standards for English/Language Arts, is a study and application of the rhetorical writing strategies of narration, description, exposition, and persuasion. Using the writing process, students demonstrate a command of vocabulary, English language conventions, research and organizational skills, an awareness of the audience, the purpose for writing, and style. Students read classic and contemporary literature or articles and use appropriate works as models for writing. Students write a variety of types of compositions with a focus on fictional narratives, reflective compositions, academic essays, and responses to literature. Course can be offered in conjunction with a literature course, or schools may embed Indiana Academic Standards for English/Language Arts reading standards within curriculum

- Fulfills an English/Language Arts credit for all diplomas

**CREATIVE WRITING (DOE 1092)**

**1 Credit    1 Semester    Grades 10-12**

Prerequisite: A grade of at least a “C” or better for honor students or by teacher permission only.

Note: A writing sample could be turned in to the instructor who may eliminate individuals he/she feels do not have adequate writing skills.

This class is for students who enjoy writing for a variety of tasks and purposes and enjoy expressing themselves through writing. Students keep a digital journal with thoughtful responses to daily: writing prompts, topics, art and current issues. Students complete weekly writing projects involving: poetry, fiction, investigative journalism, playwriting, songwriting, and more!

- Fulfills an English/Language Arts credit for all diplomas

**GENRES OF LITERATURE-MYSTERY/SUSPENSE (DOE 1036)**

**1 Credit    1 Semester    Grades: 11-12**

Prerequisite: English 9, English 10, or teacher recommendation

Genres of Literature, a course based on the Indiana Academic Standards for English/Language Arts, is a study of various literary genres, such as poetry, dramas, novels, short stories, biographies, journals, diaries, essays, and others. Students examine a set or sets of literary works written in different genres that address similar topics or themes. Students analyze how each genre shapes literary understanding or experiences differently, how different genres enable or constrain the expression of ideas, how certain genres have had a stronger impact on the culture than others in different historical time periods, and what the most influential genres are in contemporary times. Courses can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within curriculum.

- Fulfills an English/Language Arts credit for all diplomas

**GENRES OF LITERATURE-SCIENCE FICTION (DOE 1036)**

**1 Credit      1 Semester      Grades: 11-12**

Prerequisite: English 9, English 10, or teacher recommendation

Genres of Literature, a course based on the Indiana Academic Standards for English/Language Arts, is a study of various literary genres, such as poetry, dramas, novels, short stories, biographies, journals, diaries, essays, and others. Students examine a set or sets of literary works written in different genres that address similar topics or themes. Students analyze how each genre shapes literary understanding or experiences differently, how different genres enable or constrain the expression of ideas, how certain genres have had a stronger impact on the culture than others in different historical time periods, and what the most influential genres are in contemporary times. Course can be offered in conjunction with a composition course, or schools may embed Indiana Academic Standards for English/Language Arts writing standards within the curriculum.

- Fulfills an English/Language Arts credit for all diplomas

**ETHNIC LITERATURE (DOE 1032)**

**1 Credit      1 Semester      Grades 11-12**

Prerequisite: English 9, English 10, or teacher recommendation

Recommendations: Honors English with at least a "C" average is strongly recommended, but students in general English who enjoy reading and writing and who have an interest in this area are encouraged to enroll.

*Ethnic Literature*, a course based on *Indiana's Academic Standards for English/Language Arts* and the *Common Core State Standards for English/Language Arts*, is a study of literature focusing on specific multicultural issues produced by writers representing various ethnic cultures. Students examine works exploring ethnic experiences and ideas as well as the contributions of authors to multicultural themes. Students analyze the expressions of cultural identities within ethnic literature and how problems or issues of interest to a given group related or interconnect with national issues and history.

- Fulfills an English/Language Arts credit for all diplomas

**IVY TECH SPEECH (DOE 1078)**

**1 Credit      1 Semester      Grades 11-12**

Prerequisite: English 9, English 10, or teacher recommendation

Recommendations: Both semesters of this course are highly recommended for all students.

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. Also, many universities require speech/public speaking as a required

- Fulfills an English/Language Arts credits for all diplomas
- Dual Credit Potential through Ivy Tech Bloomington (3 college credits, must take 1 and 2 in the same year for Dual Credit)

**DEBATE (DOE 1070)**

**1 Credit 1 Semester Grades 11-12**

Prerequisite: English 9, English 10, and Speech or Teacher Recommendation

Debate, a course based on the Indiana Academic Standards for English/Language Arts, is the study and application of the basic principles of debate involving support for the basic types of arguments (induction, deduction, causation) and debate strategies (affirmative or negative argument construction and extension, case development, refutation or rebuttal of argument claims and evidence, and persuasive speaking).

- Fulfills an English/Language Arts credit for all diplomas

**JOURNALISM (DOE 1080)**

**1 Credit 1 Semester Grades 9-12**

Prerequisite: None

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

- Fulfills an elective for all diplomas

**ETYMOLOGY (DOE 1060)**

**1 Credit 1 Semester Grades 10-12**

Prerequisite: Honors English or “B” average in English recommended.

Etymology has a great practical application. Approximately 60% of the English language is derived from either Latin or Greek (this is an internet fact, so it may be an overestimation). Knowing these roots is great if you are planning to go into any Science, Medical, or Legal work. It will make you infinitely more competitive for Jeopardy, too.

The course is a great preparatory class for standardized test prep (SAT and ACT as examples). The class consists of a weekly review of words, quizzes, 2 tests (Greek and Latin, and the final. Students who study and budget their time properly

- Fulfills an English/Language Arts credit for all diplomas

**STUDENT MEDIA A, B (Newspaper and Yearbook Publications) (DOE 1086)**

**1-2 Credits (8 credits max.) 1-2 Semesters Grades 10-12**

Prerequisite: "C" average in Journalism and the instructor's recommendation.

Recommended: Publications required by its nature that students sign up for 3 Semesters each year. However, any student who cannot fit three Semesters into a year schedule, should consider at least a 2 Semester commitment.

Print Publications is the course that constructs the MHS Yearbook, “The Current,” the news magazine “Redline” and the news website Breakingblue.org. It encompasses all aspects of journalism including photography, writing, graphic design, and desktop layout/design. If you are interested in working on Martinsville High School’s award winning print publications, this is the course for you.

- Counts as an elective credit for all diplomas
- Fulfills a Fine Art credit for the Academic Honors diploma

**IVY TECH ENGLISH COMPOSITION (H) (DOE 1098)  
ADVANCED ENGLISH/LANGUAGE ARTS COLLEGE CREDIT  
1 Credit      1 Semester      Grades 11 and 12**

Prerequisite: Grade 10 Honors English with sophomore teacher recommendation, guidance approval.  
Note: Students with a “C” average in English may not be accepted into the course.

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

Grades in this class are primarily based on readings, discussions, compositions, and participation, not tests.

- Fulfills an English/Language Arts credit AND possibly Dual Credit.

**IVY TECH INTRODUCTION TO LITERATURE (H) (DOE 1124)  
ADVANCED ENGLISH/LANGUAGE ARTS COLLEGE CREDIT  
1 Credit      1 Semester      Grades 11 and 12**

Prerequisite: Grade 10 Honors English with sophomore teacher recommendation, and Ivy Tech ENGL 111, guidance approval.

Note: Students with a “C” average in English may not be accepted into the course.

Ivy Tech Introduction to Literature is designed to focus 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. Numerous reading and writing activities are required in addition to extended assignments outside of class.

Grades in this class are primarily based on readings, discussions, compositions, and participation, not tests.

- Fulfills an English/Language Arts credit AND possibly Dual Credit.

**IVY TECH RHETORIC AND ARGUMENT (H) (DOE 1098)  
ADVANCED ENGLISH/LANGUAGE ARTS COLLEGE CREDIT  
1 Credit      1 Semester      Grade 11 and 12**

Prerequisite: Grade 10 Honors English with sophomore teacher recommendation and Ivy Tech ENGL 111, guidance approval.

Note: Students with a “C” average in English may not be accepted into the course.

Ivy Tech Rhetoric and Argument builds on the writing skills taught in ENGL 111 and emphasizes an inquiry-driven approach to research-based analytic and argumentative writing. Students will develop advanced analytical, researching, and writing skills by writing expository critiques of nonfiction selections, literary criticism of fiction selections, persuasive compositions, and research reports in addition to other appropriate writing tasks as they work toward an extensive argumentative project. Numerous reading and writing activities are required in addition to extended assignments outside of class. Grades in this class are primarily based on readings, discussions, compositions, and participation, not tests.

- Fulfills an English/Language Arts credit AND possibly Dual Credit.

## **MATHEMATICS COURSES**

**If a student is outstanding in math, he/she may receive permission from the department chairman to take two math courses in the same year (this usually would be Geometry and Algebra II).**

### **ALGEBRA I (A, B) (DOE 2520)**

**2 Credits    2 Semesters    Grades 8-10**

Prerequisite: None

**Note: If taken in 8th grade, students will be required to take 3 years of math courses at the high school level per state graduation requirements.**

Algebra I (A, B) provides a strong foundation for academic math courses. It will establish a working understanding of the terminology, notation, and symbolism of algebra. Topics include the real number system, equations, inequalities, polynomials, factoring, functions, graphing linear equations, systems of equations, radical expressions, quadratic equations, statistics, and probability. Students will be expected to recognize that there is a systematic, deductive approach to solving problems and have the capability to apply algebraic concepts and skills to real life situations. The Texas Instruments TI30-XIIS calculator is required for this course

- Fulfills the Algebra I requirement for all diplomas
- A component of all career pathways

### **GEOMETRY (1, 2) (DOE 2532)**

**2 Credits    3 Semesters    Grades 9-12**

Prerequisite: Algebra I (A, B)

Geometry is the first mathematics course in which the student sees a mathematical system, developed from simple definitions and concepts grow into a full and useful body of knowledge. Geometry students will examine the properties of two- and three- dimensional objects. Properties and relationships of geometric objects include the study of points, lines, angles, planes, polygons (with a special focus on quadrilaterals, triangles and right triangles), circles, and polyhedra and other solids. Students will also work on understanding the use of deductive reasoning in order to draw conclusions. The Texas Instruments TI30-XIIS calculator is recommended in this course

- A requirement for Core 40, Academic Honors and Technical Honors diplomas
- A component of all career pathways



**ACADEMIC GEOMETRY (A, B) (DOE 2532)**

**2 Credits    2 Semesters    Grades 9-10**

Prerequisite: A grade of “A” or “B” in Algebra I (A, B) or 8<sup>th</sup> Grade Algebra I

Geometry is the first mathematics course in which the student sees a mathematical system, developed from simple definitions and concepts grow into a full and useful body of knowledge. Topics include properties of points, lines and planes, angle relationships, parallel and perpendicular lines, slope, distance and coordinate geometry, deductive reasoning including formal proofs, concepts of congruence and similarity, properties of triangles and circles, constructions, areas, and volumes. A strong background in Algebra I is necessary to successfully complete this course. The Texas Instruments TI30-XIIS calculator is recommended in the course.

- A requirement for Core 40, Academic Honors and Technical Honors diplomas
- A component of all career pathways

**ALGEBRA II (1-2) (DOE 2522)**

**2 Credits    2 Semesters    Grades 10-12**

Prerequisite: Geometry (1-3) and Algebra I (1-3)

Algebra II (1-3) is a course that extends the content of Algebra I and provides further development of the concept of the function. Topics include relations, functions, equations, inequalities, polynomials, algebraic fractions, logarithmic functions, exponential functions, conic sections, sequences, and series. The Texas Instruments TI30-XIIS calculator is required for this course.

- A requirement for Core 40, Academic Honors and Technical Honors diplomas
- A component of all career pathways

**ACADEMIC ALGEBRA II (A, B) (DOE 2522)**

**2 Credits    2 Semesters    Grades 9-12**

Prerequisite: A grade of “A” or “B” in either Academic Algebra I (A, B) or 8<sup>th</sup> grade Algebra I and Academic Geometry (A, B)

Algebra II provides the student with rapid review of major topics from Algebra I while allowing the students to use algebra as a language for modeling real world situations through problem solving. In addition to reinforcing and introducing new ideas related to Algebra I, new topics include higher degree functions and their graphs, exponential and logarithmic functions, complex numbers, polynomial functions, conic sections, rational expressions and functions, sequences, and series. The Texas Instruments TI30-XIIS calculator is required for this course

- A requirement for Core 40, Academic Honors and Technical Honors diplomas
- A component of all career pathways

**STATISTICS, ADVANCED PLACEMENT (A, B) (H) (DOE 2570)**

**2 Credits    2 Semesters    Grades 10-12**

Prerequisite: Geometry and Algebra II (Grade of “C” or better)

Advanced Placement Statistics is a course designed to help students become wise consumers of statistical information. This is achieved through a balanced coverage of statistical theory and application. Topics include frequency distributions, graphical representations of data, measures of central tendency, variance, position, laws of probability, normal and binomial distributions, central limit theorem, estimation, hypothesis testing, linear correlation, regression, and the chi-square distribution. Students are required to take the Advanced Placement Test. It is possible to qualify for college credits with this course. The Texas Instruments TI-84 family of calculators are required for this course

- Fulfills a Core 40 Math credit AND AP credit for Academic Honors diploma
- A component of all career clusters

**PRE-CALCULUS/ALGEBRA AND/OR TRIGONOMETRY (H) (DOE 2566)**

**2 Credits    2 Semesters    Grades 10-12**

Prerequisite: Geometry and Algebra II (Grades of “A” & “B” highly recommended)

Pre-Calculus is a class that requires a strong background in Algebra II in order to be successful. This course provides further study of functions, lines, triangles, quadrilaterals and conics. New topics include parametric functions, vectors, trigonometric functions and identities, polar coordinates, and three-dimensional graphing. The Texas Instruments TI-83 Plus or TI-84 family of calculators are required for this course

- Fulfills a Core 40 Math credit for Academic Honors diploma
- Dual college credit can be earned from Ivy Tech Bloomington

**CCR Bridge: Math Ready (DOE 2514)**

**1 Credit    1 Semester    Grades 10-12**

Prerequisite: Algebra II

The CCRBridge: Math Ready course will include and reinforce the Algebra I, Geometry, Algebra II, and Statistics skills necessary to be ready for an entry-level college math course. This course emphasizes understanding of math concepts rather than just memorizing procedures. Math Ready students learn the context behind the procedure (e.g., why to use a certain formula or method to solve a problem). This equips them with higher-order thinking skills in order to apply math skills, functions, and concepts in different situations. The course is intended for students who currently have achieved the minimum math requirements for college entry. The content of this course is designed to enhance students’ math skills so that they are ready for college-level math assignments. It is not designed to prepare students for college-level math in STEM majors.

**Finite Mathematics (DOE 2530)**

**1 Credit    1 Semester    Grades 10-12**

Prerequisite: Algebra II

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

**CALCULUS I/ADV MATH COLLEGE CREDIT (H) (DOE 2527/2544)**

**2 Credits      2 Semesters      Grade 11-12**

Prerequisite: Pre-Calculus

Advanced Placement Calculus is a college-level class for students with a strong mathematics background. Students are required to take the Advanced Placement Test. Topics include limits, derivatives, Rolle's and the Mean Value Theorem, maximum and minimum problems, integrals, differentiation and integration of logarithmic, exponential, and trigonometric functions, L'Hopital's Rule, and infinite series. Students are required to take the Advanced Placement Test. It is possible to qualify for college credits with this course. The Texas Instruments TI-84 family of calculators is required for this course

- Fulfills a Core 40 Math credit AND AP credit for Academic Honors diploma
- Dual college credit can be earned from Ivy Tech Bloomington

**FINITE MATHEMATICS A/B (H) (DOE 2530)**

**2 Credits      2 Semesters      Grade 10-12**

Prerequisite: Algebra II

Finite Mathematics is a collection of mathematical topics, frequently used in business or public policy contexts. It is a course designed for students who will undertake higher-level mathematics in college that may not include calculus. Finite Math comprises five strands: Sets; Matrices; Networks; Optimization; and Probability. The skills listed in these strands indicate what students should know and be able to do in Finite Math.

- Fulfills a Mathematics credit for all diplomas
- Dual college credit can be earned from Ivy Tech Bloomington

## **SCIENCE COURSES**

### **BIOLOGY I G (A, B) (DOE 3024)**

**2 Credits                      2 Semesters              Grades 9-12**

Prerequisite: Counselor recommendation

First year Biology provides, through regular laboratory investigations, a study of the structures and functions of living organisms and their interactions with their environment. At a minimum, this study explores the functions and processes of cells, tissues, organs, and systems within various species of living organisms and the roles and interdependencies of organisms within populations, communities, ecosystems, and the biosphere. Students have opportunities to: (1) gain an understanding of the history of the development of biological knowledge, (2) explore the uses of biology in various careers, and (3) cope with biological questions and problems related to personal needs and social issues. This course studies life on the cellular level during most of the first Semester. The molecular structure, function, and the manipulation of energy by living organisms are also emphasized. The second Semester focuses on genetics, ecology, and evolutionary theory

- A requirement of all diploma types
- A component of all career pathways

### **PLTW PRINCIPLES OF BIOMEDICAL SCIENCES (A, B) (DOE 5218)**

**2 Credits                      2 Semesters              Grades 9-12**

Prerequisite: Biology I

PLTW 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 throughout the course is to determine the factors that led to the death of a fictional person. After determining the factors responsible for the death, the students investigate lifestyle choices and medical treatments that might have prolonged the person’s life. Key biological concepts included in the curriculum are: homeostasis, metabolism, inheritance of traits, feedback systems, and defense against disease. Engineering principles such as the design process, feedback loops, fluid dynamics, and the relationship of structure to function will be included where appropriate. 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

- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Core 40 Science requirement for all diplomas

**PLTW HUMAN BODY SYSTEMS (A, B) (DOE 5216)**

**2 Credits                      2 Semesters                      Grades 10 - 12**

Prerequisite: PLTW Principles of Biomedical Sciences (1, 2)

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.

- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a science requirement for all diplomas

**PLTW MEDICAL INTERVENTIONS (A, B) (DOE 5217)**

**2 Credits                      2 Semesters                      Grades 11 - 12**

Prerequisite: PLTW Principles of Biomedical Sciences (1, 2)

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 High School Course Titles and Descriptions 2022-2023 300 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.

- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a science requirement for all diplomas

**ADVANCED SCIENCE SPECIAL TOPICS [GENETICS] (H) (DOE 3092)**

**1 Credit    1 Semester    Grades 10-12**

This course provides an introductory overview of major and timely topics in genetics. The objective is to provide students with a broadly-based and fundamental understanding of genetics, and to present selected challenges and issues that currently face genetics research and communities. This course provides students with an understanding of the principles and concepts of genetics and introduces transmission, nature and action of genetic material in organisms.

**BIOLOGY, ADVANCED PLACEMENT (A, B) (H) (DOE 3020)**

**2 Credits                      2 Semesters                      Grades 10-12**

[Back to Table of Contents](#)

Prerequisite: Academic Biology I, Chemistry I, and Algebra II with a “B” average or above. Must be a very strong academic science student. Application process and guidance approval also required.

The AP Biology course is an introductory college-level biology course. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes, energy and communication, genetics, information transfer, ecology, and interactions. RECOMMENDED PREREQUISITES Students should have successfully completed high school courses biology, chemistry, and algebra 2 with a recommendation for concurrent statistics

- Fulfills a Core 40 Science credit AND AP credit for Academic Honors diploma

### **EARTH & SPACE SCIENCE I (A, B) (DOE 3044)**

**2 Credits 2 Semesters Grades 9-12**

Prerequisite: None

Earth and Space Science is the study of the earth’s lithosphere, atmosphere, and hydrosphere, and its celestial environment. This course emphasizes the study of energy at work in forming and modifying earth materials, landforms, and continents through geological time. A class that studies the Earth's structure, processes, and history, and how the Earth's energy and systems interact including a variety of topics, including geology, astronomy, meteorology, hydrology, and environmental science. Students have opportunities to gain an understanding of the history of the development of the earth and space, to explore the uses of knowledge of the earth and the universe and their environments in various careers, and to cope with problems related to personal needs and social issues.

- Fulfills a Core 40 science credit for all diplomas

### **ADVANCED SCIENCE SPECIAL TOPICS [CLIMATE SCIENCE] (H) (DOE 3092)**

**1 Credit 1 Semester Grades 11-12**

Climate science investigates the structure and dynamics of earth’s climate system. It seeks to understand how global, regional and local climates are maintained as well as the processes by which they change over time. In doing so, it employs observations and theory from a variety of domains, including meteorology, oceanography, physics, chemistry and more. These resources also inform the development of computer models of the climate system, which are a mainstay of climate research today. This entry provides an overview of some of the core concepts and practices of contemporary climate science as well as philosophical work that engages with them. The focus is primarily on epistemological and methodological issues that arise when producing climate datasets and when constructing, using and evaluating climate models. Some key questions and findings about anthropogenic climate change are also discussed.

- Fulfills a science requirement for all diplomas

**ENVIRONMENTAL SCIENCE, ADVANCED PLACEMENT (A, B) (H) (DOE 3012)**

**2 Credits 2 Semesters Grades 10-12**

Prerequisite: C or better in Biology and Chemistry or Physics [Chemistry preferred]

This course is designed to provide students with the principles, concepts and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human caused, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them.

- Counts as a Science Course for all diplomas
- Qualifies as a quantitative reasoning course

**ANATOMY/PHYSIOLOGY (A, B) (DOE 5276)**

**2 Credits 2 Semesters Grades 10-12**

Prerequisite: Biology I and Chemistry I with a “C” or better.

This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization; homeostasis; cytology; histology; and the integumentary, skeletal, muscular, nervous systems and special senses. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. Laboratory work includes dissection of preserved specimens, microscopic study, physiologic experiments, and computer simulations

- A Core 40 science credit
- Counts as an elective for all diplomas
- A component of the Emergency & Medical Services AND Nursing career pathways

**INTEGRATED CHEMISTRY/PHYSICS (A, B) (DOE 3108)**

**2 Credits 2 Semesters Grades 9-12**

Prerequisite: None

Integrated Chemistry/Physics (ICP) is a laboratory based course in which students explore the fundamental concepts of chemistry and physics. This course is designed for those students not wishing to take advanced levels of chemistry or physics. Students enrolled in this course examine, through the process of scientific inquiry, the structure and properties of matter, chemical reactions, forces, motion, and the interactions between energy and matter. Students will investigate the basics of chemistry and physics in solving real-world problems that may have personal or social consequences beyond the classroom. Laboratory and mathematical principles will be stressed. A calculator with exponent capability is required.

- A Core 40 science credit

**ADVANCED SCIENCE SPECIAL TOPICS [PHYSICS OF FLIGHT](DOE 3092)**

**2 Credits    2 Semesters    Grades 10-12**

Prerequisite: C or better in ICP or Physics

This detailed comprehensive 2 semester course will thoroughly prepare the student to satisfy the mandatory requirement of passing the Federal Aviation Administration (FAA) written examination and oral exam.

The FAA written and oral exams are two (2) of three (3) mandatory requirements necessary to obtain the private pilot's certificate. This Beginning Ground Course and Private Pilot Certificates are mandatory for a career in aviation.

The specific requirements for obtaining a Private Pilot's License are:

1. Pass the FAA Private Pilot written exam with a minimum passing score of 70% (This 84 hour course prepare the student for this requirement)
2. Pass an oral exam with a designated FAA examiner. (This course adequately prepares the student to easily pass this requirement)
3. Pass a flight exam with a designated FAA examiner. (This requirement is completed with the student and his/her individual flight instructor in an aircraft)

**CHEMISTRY I (A, B) (DOE 3064)**

**2 Credits    2 Semesters    Grades 9-12**

Prerequisite: Algebra I and Biology I with a “B” average or above.

Chemistry I introduces students to atomic structure and reactivity. Students will explore the following topics in a problems-based and inquiry-based approach, both in the classroom and in the chemical laboratory: (1) significance in measurement; (2) properties and changes of matter, (3) the quantum mechanical model of the atom, (4) common reaction mechanisms, (5) the mole concept, (6) reaction kinetics and equilibrium. Chemistry I is a college preparatory course with some emphasis on mathematical processes requiring prerequisite mastery of some Algebra I concepts. Time will be spent in both the classroom and the laboratory practicing skills and techniques to develop mastery of the Indiana Science and Engineering Process Standards. A calculator with the ability to do exponential notation is necessary

- A Core 40 science credit



**ADVANCED PLACEMENT CHEMISTRY A, B (H) (DOE 3060)**

**2 Credits                      2 Semesters                      Grades 10 - 12**

Prerequisites: Chemistry I, Algebra II

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

- A Core 40 science credit and AP course for Academic Honors diploma
- Qualifies as a quantitative reasoning course

**PHYSICS I (A, B) (DOE 3084)**

**2 Credits    2 Semesters    Grades 9-12**

Prerequisite: Algebra I and Biology I with a “B” average or above.

Physics I aids students in synthesizing the fundamental concepts and principles concerning matter and energy through the laboratory study of mechanics, wave motion, heat, light, electricity, magnetism, electromagnetism, and atomic and nuclear physics. Students have opportunities to: (1) acquire an awareness of the history of physics and its role in the birth of technology, (2) explore the uses of its models, theories, and laws in various careers, and 3) cope with physics questions and problems related to personal needs and social issues

- A Core 40 science credit

**PHYSICS, ADVANCED PLACEMENT (A, B) (H) (DOE 3080)**

**2 Credits    2 Semesters    Grades 10-12**

Prerequisite: Physics I and Algebra II with a “B” average or above.

Advanced Placement Physics-Algebra Based is an advanced class, math oriented, with laboratory experiences and follows College Board Entrance Examination guidelines for advanced placement physics. Students are required to take the advanced placement test. It is possible to qualify for college credits with this course

- Fulfills a Core 40 Science credit AND AP credit for Academic Honors diploma

**COMPUTING FOUNDATIONS FOR A DIGITAL AGE (DOE 4565)**

**1 Credit      1 Semester      Grade 9**

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.

**INTRODUCTION TO COMPUTER SCIENCE A,B (DOE 4803)**

**2 Credits      2 Semesters      Grades 9 - 12**

Prerequisite: None

Introduction to Computer Science allows students to explore the world of computer science. Students will gain a broad understanding of the areas composing computer science. Additionally, there is a focus on the areas of computer programming, gaming/mobile development, and artificial intelligence/robotics.

- Counts as a Directed Elective or Elective for all diplomas

**PRINCIPLES OF COMPUTING A, B (DOE 7183) OR AP COMPUTER SCIENCE PRINCIPLES (DOE 7183)**

**2 Credits      2 Semesters      Grade 10-12**

Prerequisite: Introduction to Computer Science; Completed or Co-Enrolled in Algebra I, or permission of teacher

NOTE: AP Computer Science Principles is the advanced option and would require taking an additional section of Special Topics (DOE 5252) to fulfill the requirements for the AP exam.

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.

- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a science course requirement for all diplomas
- Qualifies as a quantitative reasoning course
- Principles course Computer Science Pathway

**WEBSITE AND DATABASE DEVELOPMENT A, B (DOE 7183)**

**2 Credits      2 Semesters      Grades 10 - 12**

[Back to Table of Contents](#)

Prerequisite: Principles of Computing

Website and Database Development will provide students a basic understanding of the essential Web and Database skills and business practices that directly relate to Internet technologies used in Website and Database design and development. Students will learn to develop Websites using Hypertext Markup Language(HTML)andCascadingStyleSheets(CSS).Additionallystudentswillbeintroducedtothebasic concepts of databases including types databases,general database environments, database design, normalization and development of tables, queries, reports, and applications.Students will be familiarized with the use of ANSI Standard Structured Query Language. Students will be introduced to data concepts such as data warehousing, data mining, and BIG Data.Students will develop a business application using database software such as Microsoft Access.

- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course
- Fulfills a science requirement for all diploma types

**SOFTWARE DEVELOPMENT A, B (DOE 7184)**

**2 Credits                      2 Semesters                      Grades 11 - 12**

Prerequisite: Principles of Computing

Software Development introduces students to conceptsandpracticesofprogramminglanguagesand softwaredevelopment.Studentsareintroducedtoalgorithmsanddevelopment toolsusedto document/implementcomputerlogic.Discussesthehistoryofsoftwaredevelopment, thedifferent typesof programmingsuchasreal timeprocessing,web/databaseapplications,anddifferentprogramdevelopment environments.Conceptswillbeappliedusingdifferentprogramminglanguages,andstudentswilldevelop andtestworkingprogramsinanintegratedsystem.

- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a science course requirement for all diplomas
- Qualifies as a quantitative reasoning course
- “Concentrator B” course Computer Science Pathway

**INFORMATION TECHNOLOGY FUNDAMENTALS (DOE 7180)**

**2 Credits                      2 Semesters                      Grades 9-12**

Prerequisite: Principles of Computing

Information Technology Fundamentals provides the necessary competencies required for an entry-level Information Technology professional. Students will have the knowledge required to assemble components based on customer requirements, install, configure and maintain devices/software for end users, understand the basics of networking and security, properly and safely diagnose, resolve and document

common hardware and software issues while applying troubleshooting skills. Students will also learn appropriate customer support, understand the basics of virtualization, desktop imaging, and deployment. This course should also prepare students for the CompTia A+ Certification Exam.

- Counts as a Directed Elective or Elective for all diplomas

**NETWORKING AND CYBERSECURITY OPERATIONS A, B (DOE 7181)**  
**2 Credits            2 Semesters            Grade 11-12**

Prerequisite: Principles of Computing, Information Technology Fundamentals

Advanced Information Technology will provide students with the fundamental concepts in networking and cybersecurity. Students are introduced to the principles and concepts of computer networking, covering the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. Students will be able to troubleshoot routers and switches and resolve common issues. The students will also explore the field of Cyber Security/Information Assurance focusing on the technical and managerial aspects of the discipline. Students will be introduced to the basic terminology, concepts, and best practices of computer/network security and the roles and responsibilities of management/security personnel. The students will learn the technologies used and techniques involved in creating a secure computer networking environment including authentication and the types of attacks against an organization.

- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a science course requirement for all diplomas
- Qualifies as a quantitative reasoning course

**COMPUTER SCIENCE: SPECIAL TOPICS: PHYSICAL COMPUTING/ROBOTICS (DOE 5252)**

**1-3 Credits per Semester            1-2 Semesters    Grades 9-12            12 Credits MAX**

Computer Science III: Special Topics is an extended experience designed to address the advancement and specialization of computer science careers allowing schools to provide a specialized course for a specific computer science workforce needed in the school's region. It prepares students with the knowledge, skills and attitudes essential for working in the field of computer science. Course standards and curriculum must be tailored to the specific computer science specialization. This course must prepare students for advancement in this career field and should provide students with opportunities for certification or dual credit.

- Counts as a Directed Elective or Elective for all diplomas

## **SOCIAL STUDIES COURSES**

### **GEOGRAPHY AND HISTORY OF THE WORLD A, B (DOE 1570)**

**2 Credits    2 Semesters    Grades 9-12**

Prerequisite: None

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.

- A requirement for all diplomas

### **ADVANCED PLACEMENT WORLD HISTORY MODERN A, B (DOE 1612)**

**2 Credits                    2 Semesters                    Grades: 9 - 10**

- Incoming Freshmen/Sophomores
  - Enrolled in Honors English and a GPA of 2.8 or above
  - General English and a GPA of 3.5 or above

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

- Counts as an elective for all diplomas
- Fulfills the Geography History of the World/World History and Civilization graduation requirement for all diplomas

**UNITED STATES HISTORY (A, B) (DOE 1542)      2 Credits    2 Semesters    Grades 11-12**

Prerequisite: None

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.

- A requirement for all diplomas

**IVY TECH UNITED STATES HISTORY A, B) (DOE 1542)  
2 Credits    2 Semesters    Grades 11-12 for Dual College Credit**

Prerequisite: None

A survey of America's history from settlement to the 21st century with heavy concentration on 20th century U.S. political, social and economic issues.

United States History emphasizes national development in the late nineteenth and twentieth centuries and builds upon concepts developed in previous studies of American history. Students in this course also identify and review significant events, figures, and movements in the early development of the nation. After providing such a review, the course gives major emphasis to the interaction of historical events and geographic, social, and economic influences on national development in the late nineteenth and twentieth centuries. A chronological, topical, or comparative approach can be used in developing themes from America's past as they relate to life in Indiana and the United States today.

Students demonstrate the ability to trace and analyze chronological periods and examine the relationships of significant themes and concepts in United States history. Students will be able to sequence historical events, examine cause and effect, identify different perspectives, and relate historical situations to current issues. Opportunities are given to develop critical thinking skills by gathering and organizing information from primary source material and a variety of historical and contemporary sources, accounts, and documents. Investigation of themes and issues include analysis of the importance of cultural pluralism and diversity of opinion in American society. Students learn to exercise their skills as citizens in a democratic society by engaging in problem solving and civic decision making in the classroom, school, and community settings. IVY TECH dual credit may be earned.

- A requirement for all diplomas
- Potential Dual Credit through Ivy Tech (6 college credits, both parts must be completed in the same year for credit)

**ADVANCED PLACEMENT EUROPEAN HISTORY A, B (H) (DOE 1556)**

**2 Credits                      2 Semesters                      Grades 10-12**

Recommended Prerequisite: AP World History

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

- Students should be able to read a college level textbook and write grammatically correct sentences.
- Counts as an Elective for all diplomas

**INDIANA STUDIES (DOE 1518)**

**1 Credit      1 Semester      Grades 9-12**

**\*\*Online course through Indiana Online Academy\*\***

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.

- Counts as an elective for all diplomas

**ETHNIC STUDIES (DOE 1516)**

**1 Credit      1 Semester      Grades 9-12**

**\*\*This course is offered through APEX, an online learning platform.\*\***

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

- Counts as an elective for all diplomas

**SOCIOLOGY (DOE 1534)**

**1 Credit 1 Semester Grades 11-12**

Prerequisite: GPA is 3.0 or higher or teacher approval

Note: Language skills are vital to success in this course. Students are expected to participate in discussion and assignments.

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

- Counts as an elective for all diplomas

**IVY TECH PSYCHOLOGY (DOE 1532)**

**1 Credit 1 Semester Grades 10-12**

Prerequisites: GPA is 3.0 or higher or teacher approval

Note: Language skills are vital to success in this course.

Surveys behavior and cognitive processes as they affect the individual. The course focuses on biological foundations, learning processes, research methodologies, personality, human development and abnormal and social psychology.

**MAJOR COURSE LEARNING OBJECTIVES:** Upon successful completion of this course the student will be expected to:

- 1) Identify and differentiate theoretical perspectives of psychology.
  - 2) Demonstrate a basic knowledge of research methods.
  - 3) Exhibit a fundamental understanding of the biological basis of behavior.
  - 4) Demonstrate an understanding of classical and operant conditioning, and social cognitive learning.
  - 5) Identify theories and characteristics of cognition and memory.
  - 6) Demonstrate a basic knowledge of the major theories of personality.
  - 7) Demonstrate a basic understanding of physical, cognitive, emotional and social aspects of human development to include a variety of cultural and ethnic backgrounds.
  - 8) Demonstrate a basic knowledge of symptoms, classification, treatment and causes of psychological disorders.
  - 9) Demonstrate an understanding of how society and culture in various world contexts impacts individual behavior and cognition.
  - 10) Demonstrate a basic knowledge of motivation and emotional theories.
  - 11) Identify and discuss situations in which psychology affects everyday life.
- Counts as an elective for all diplomas



**CURRENT PROBLEMS, ISSUES, AND EVENTS (DOE 1512)**

**1-2 Credits      1-2 Semesters      Grades 10-12**

Recommended Prerequisite: GPA is 2.7 or higher or teacher approval

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.

- Counts as an elective for all diplomas

**UNITED STATES GOVERNMENT (DOE 1540)**

**1 Credit   1 Semester   Grade 12**

Prerequisite: None

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

- A requirement for all diplomas

**ADVANCED PLACEMENT U.S. GOVERNMENT & POLITICS (H) (DOE 1560)**

**1 Credit      1 Semester      Grade 12**

Prerequisite: Ivy Tech U.S. History

AP United States Government and Politics is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. AP U.S. Government and Politics provides a college-level, nonpartisan introduction to key political concepts, ideas, institutions, policies, interactions, roles, and behaviors that characterize the constitutional system and political culture of the United States. Students study U.S. foundational 155 documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions among political institutions, processes, and behavior. They also engage in disciplinary practices that require them to read and interpret data, make comparisons and applications, and develop evidence-based arguments. In addition, they complete a political science research or applied civics project.

- Fulfills the Government AND AP requirement for the Academic Honors diploma

**ECONOMICS (DOE 1514)**

**1 Credit    1 Semester    Grade 12**

Prerequisite: None

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

- A requirement for all diplomas
- Qualifies as a quantitative reasoning course

**ADVANCED PLACEMENT MACROECONOMICS (H) (DOE 1564)**

**1 Credit                      1 Semester                      Grade 12**

Prerequisite: Academic Algebra

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

- Counts as an elective for all diplomas
- Fulfills the economics requirement for all diplomas
- Qualifies as a quantitative reasoning course

**ADVANCED PLACEMENT MICROECONOMICS (H) (DOE 1566)**

**1 Credits                      1 Semester                      Grade 12**

Prerequisite: Academic Algebra

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

- Counts as an elective for all diplomas
- Fulfills the economics requirement for all diplomas

**\*\*NOT ALL COURSES CAN BE OFFERED EVERY YEAR\*\***

- Qualifies as a quantitative reasoning course

## **ENGINEERING AND TECHNOLOGY EDUCATION COURSES**

### **INTRODUCTION TO DESIGN PROCESSES (DOE 4794)**

**1 Credit     1 Semester     Grades 9-12**

Prerequisite: None

This class teaches the use of drafting instruments and freehand drawing to make working drawings of machine parts. Students learn how to make and understand/interpret drawings. This class is very highly recommended to be taken by all students before taking any other Technology Ed./Vocational courses, especially Construction, Machining, and Welding. Part of the course will introduce students to computer aided drafting (CAD).

- Counts as a directed elective or elective for all diplomas

### **COMPUTERS IN DESIGN AND PRODUCTION (DOE 4800)**

**1 Credit     1 Semester     Grades 9-12**

Prerequisite: Introduction to Design Processes

Computers in Design and Production is a course that specializes in using modern technological processes, computers, design, and production systems in the production of products and structures through the use of automated production systems. Emphasis is placed on using modern technologies and on developing career related skills for electronics, manufacturing, precision machining, welding, and architecture career pathways. Students apply ingenuity using tools, materials, processes, and resources to create solutions as it applies in the electronics, manufacturing, precision machining, welding, and architecture. The content and activities should be developed locally in accordance with available advanced technologies in the school. Course content should address major technological content related to topics such as: Architectural drawing and print design, design documentation using CAD systems; assignments involving the interface of CAD, CNC, CAM, and CIM technologies; computer simulation of products and systems; publishing of various 306 Indiana Department of Education High School Course Titles and Descriptions: 2024-2025 media; animation and related multimedia applications; 3-D modeling of products or structures; digital creation and editing of graphics and audio files; control technologies; and automation in the modern workplace.

- Counts as a directed elective or elective for all diplomas

### **INTRODUCTION TO ENGINEERING DESIGN A & B (DOE 4802)**

**2 Credits     2 Semesters     Grades 9-12**

PLTW -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.

- Counts as a directed elective or elective for all diplomas
- Principles course for Engineering Pathway
- Dual credit with Ivy Tech if student qualifies

**PRINCIPLES OF AUTOMOTIVE SERVICES A, B (DOE 7213)**

**2 Credits    2 Semesters    Grades 10-12**

Prerequisite: None

Students will study the wheeled vehicles involved in the actual movement of people and cargo within the transportation systems with emphasis on the car and light truck industry. There will be study of basic theory of operation, practical lab experience with emphasis on preventative maintenance skills centered mostly on cooling systems, lubrication systems, and minor electrical and safety concerns while servicing these areas

- A Core 40 and Academic Honors elective
- Principles course for Automotive Services Pathway
- Dual credit with Ivy Tech if student qualifies

**BRAKE SYSTEMS A, B (DOE 7205)**

**2 Credits    2 Semesters    Grades 11-12**

Prerequisite: Principles of Auto Services Technology B and teacher approval.

This course gives students an in-depth study of vehicle electrical systems. Students will study the fundamentals of electricity and automotive electronics in various automotive systems. Additionally, it 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. IVY TECH dual credit may be earned.

- Counts as a directed elective or elective for all diplomas
- "Concentrator A" Course Automotive Services Pathway
- Dual credit with Ivy Tech if student qualifies

**STEERING AND SUSPENSIONS A,B (DOE 7212)**

**2 Credits    2 Semesters    Grades 11-12**

Prerequisite: Principles of Auto Services Technology B and teacher approval.

This course takes an in-depth look at engine performance, including concepts in the diagnosis and repair of ignition, fuel, emission and related computer networks. This course presents engine theory and operation and studies the various engine designs utilized today. This course also takes an in-depth look at engine performance, including advanced concepts in the diagnosis and repair of ignition, fuel, emission and related computer networks. This course presents engine theory and operation and studies the various engine designs utilized today. Hybrid/Alternative fuel technology will also be introduced.

- Counts as a directed elective or elective for all diplomas
- “Concentrator B” Course Automotive Services Pathway
- Dual credit with Ivy Tech if student qualifies

**AUTOMOTIVE SERVICE CAPSTONE (DOE 7375)**

**2-6 Credits 2 Semesters Grades 12**

Prerequisite: Principles of Auto Services, Brake Systems, and Steering and Suspensions

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

**PRINCIPLES OF ADVANCED MANUFACTURING A, B (DOE 7108)**

**2 Credits 2 Semesters Grades: 9-12**

Principles of Advanced Manufacturing is a course that includes classroom and laboratory experiences in Industrial Technology and Manufacturing Trends. Domains include safety and impact, manufacturing essentials, lean manufacturing, design principles, and careers in advanced manufacturing. Hands-on projects and team activities will allow students to apply learning on the latest industry technologies. Work-based learning experiences and industry partnerships are highly encouraged for an authentic industry experience.

- Counts as a directed elective or elective for all diplomas
- A component of the Industrial Automation and Robotics Pathway

**ADVANCED MANUFACTURING TECHNOLOGY A,B (DOE 7103)**

**2 Credits 2 Semesters Grades: 10-12**

Advanced Manufacturing Technology introduces manufacturing processes and practices used in manufacturing environments. The course also covers key electrical principles, including current, voltage, resistance, power, inductance, capacitance, and transformers, along with basic mechanical and fluid power principles. Topics include, types of production, production materials, machining and tooling, manufacturing planning, production control, and product distribution will be covered. Students will be expected to understand the product life cycle from conception through distribution. This course also focuses on technologies used in production processes. Basic power systems, energy transfer systems, machine operation and control will be explored. This course will use lecture, lab, online simulation and programming to prepare students for Certified Production Technician Testing through Manufacturing Skill Standards Council (MSSC).

**COMPUTER INTEGRATED MANUFACTURING (DOE 5534)**

**2 Credits    2 Semesters    Grades 11-12**

Prerequisite: Advanced Manufacturing Technology

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. NOTE: This course aligns with the PLTW Computer Integrated Manufacturing curriculum. Use of the PLTW curriculum may require additional training and membership in the PLTW network.

**PRINCIPLES OF PRECISION MACHINING A,B (DOE 7109)**

**2 Credits    2 Semesters    Grades 10-12**

Prerequisite: One Semester of Introduction to Design Processes or taken concurrently.

Principles of Precision Machining will provide 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, 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 that may be required for college dual credit.

- Counts as a directed elective or elective for all diplomas
- A component of the Precision Machining Career Pathway
- Dual credit with Vincennes if student qualifies

**PRECISION MACHINING FUNDAMENTALS (DOE 7105)**

**2 Credits    2 Semesters    Grades 11-12**

Prerequisite: Principles of Precision Machining.

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 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 that may be required for college dual credit.

- Counts as a directed elective or elective for all diplomas
- “Concentrator A” Course Precision Machining Career Pathway
- Dual credit with Vincennes if student qualifies

**ADVANCED PRECISION MACHINING (DOE 7107)**

**2 Credits 2 Semesters Grades 11-12**

Prerequisite: Principles of Precision Machining, Precision Machining Fundamentals.

Advanced Precision Machining will build upon the Turning and Milling processes learned in Precision Machining Fundamentals and will build 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.

- Counts as a directed elective or elective for all diplomas
- “Concentrator B” Course Precision Machining Career Pathway
- Dual credit with Vincennes if student qualifies

**PRECISION MACHINING CAPSTONE(DOE 7219)**

**2-6 Credits 2 Semesters Grades 11-12**

Prerequisites: Principles of Precision Machining; Precision Machining Fundamentals; Advanced Precision Machining

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. A continued focus on safety will also be presented.

- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as a quantitative reasoning course

**INTRODUCTION TO CONSTRUCTION A & B (DOE 4792)**

**2 Credits 2 Semesters Grade: 9-12**

Students will study construction techniques, wood finishing, and operation of hand and power tools. Students will build a stool and a model house.

- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a directed elective or elective for all diplomas

**PRINCIPLES OF CONSTRUCTION (DOE 7130)**

**2 Credits 2 Semesters Grades 11-12**

Prerequisite: One Semester of Introduction to Design Processes or taken concurrently.



Recommendation: Introduction To Construction A & B

Principles of Construction Trades prepares students with the basic skills needed to continue in a construction trade field. Topics will 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 safety. Additionally students will study the roles of individuals and companies within the construction industry and reinforce mathematical and communication skills necessary to be successful in the construction field.

- Counts as a directed elective or elective for all diplomas
  - A component of the Construction Trades Career Pathway

### **CONSTRUCTION TRADES: General Carpentry** **2 Credits 2 Semesters Grades 11-12**

Prerequisite: Principles of Construction Trades

Recommendations: It is recommended that those students who plan to enroll in this program complete the Architectural Drafting class before graduation.

Construction Trades: General Carpentry builds upon the skills learned in the Principles of Construction Trades and examines the basics of framing. This includes studying the procedures for laying out and constructing floor systems, wall systems, ceiling joist and roof framing, and basic stair layout. Additionally, students will be introduced to building envelope systems.

- Counts as a directed elective or elective for all diplomas
- “Concentrator A” Construction Trades Career Pathway

### **CONSTRUCTION TRADES: Framing and Finishing** **2 Credits 2 Semesters Grades 11-12**

Prerequisite: Principles of Construction Trades, General Carpentry

Recommendations: It is recommended that those students who plan to enroll in this program complete the Architectural Drafting class before graduation.

Construction Trades: Framing and Finishing prepares students with advanced framing skills along with interior and exterior finishing techniques. 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.

- Counts as a directed elective or elective for all diplomas
- “Concentrator B” Course Construction Trades Career Pathway

**CONSTRUCTION TRADES CAPSTONE (DOE 7242)**

**1-6 Credits    1-3 Semesters    Grade 12**

Prerequisite: Principles of Construction Trades, General Carpentry, Framing and Finishing

Recommendations: It is recommended that those students who plan to enroll in this program complete the Architectural Drafting class before graduation.

The Construction Trades Capstone course covers the basics of electricity and working with concrete. Electrical topics include the National Electric Code, electrical safety, electrical circuits, basic electrical construction drawings, and residential electrical services. Students may also gain an understanding of concrete properties, foundations, slab-on-grades, and vertical and horizontal formwork. The course prepares students for the NCCER Carpentry Forms Level 3 and Electrical Level 1 certificates.

- Counts as a directed elective or elective for all diplomas
- A component of the Construction Trades Career Pathway

**PRINCIPLES OF ENGINEERING A & B (DOE 5644)**

**2 Credits            2 Semesters            Grades 10-12**

Prerequisites: Introduction to Engineering Design B

PLTW-This course 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. 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.

- Counts as a directed elective or elective for all diplomas
- “Concentrator A” Course Engineering Career Pathway

**CIVIL ENGINEERING AND ARCHITECTURE A & B (DOE 5650)**

**2 Credits            2 Semesters            Grades 11-12**

Prerequisites: Introduction to Engineering Design; Principles of Engineering

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

- Counts as a directed elective or elective for all diplomas
- Counts as a quantitative reasoning course

- “Concentrator B” Course Engineering Career Pathway

**PRINCIPLES OF BROADCASTING (DOE 7139)**

**2 Credits    2 Semesters    Grades 9-12**

This introductory course to Broadcast Television Production, provides instruction to develop and enhance competencies in various communication, marketing, media, production and technical functions and tasks performed by employees in this field. Emphasis is placed on career opportunities, production, programming, announcing, broadcast equipment operation, news and sports casting, broadcast regulations and laws, station organization, technical, oral and written communication, and listening skills.

Instructional strategies may include a school-based enterprise, real and simulated occupational experiences, such as the operation of an in-school radio, television, telecommunications, or distance learning studio, job shadowing, field trips, and internships

- Counts as a directed elective or elective for all diplomas
- A component of the Radio & Television Career Pathway

**AUDIO AND VIDEO PRODUCTION ESSENTIALS (DOE 7306)**

**2 Credits    2 Semesters    Grades 10-12**

Prerequisite: Principles of Broadcasting or teacher’s approval.

Radio/TV Broadcasting/Telecommunications provides instruction to develop and enhance competencies in various communication, marketing, media, production, and technical functions and tasks performed by employees, including management personnel, in radio/TV broadcasting and telecommunications occupations. Emphasis is placed on career opportunities, production, programming, promotion, sales, announcing, broadcast equipment operation, news and sportscasting, broadcast regulations and laws, station organization, technical oral/written communication, and listening skills. Instructional strategies may include a hands-on school-based enterprise, real and/or simulated occupational experiences, such as the operation of an in-school radio, television, telecommunications, or distance learning studio; job shadowing; field trips; and internships. This course may be repeated for a second year. UNIVERSITY OF SOUTHERN INDIANA dual credit may be earned.

- Counts as a directed elective or elective for all diplomas
- “Concentrator A” Course Radio & Television Career Pathway

**MASS MEDIA PRODUCTION (DOE 7307)**

**2 Credits    2 Semesters    Grades 10-12**

Prerequisites: Principles of Broadcasting; Audio and Video Production Essentials

Mass Media Production will focus on the study of theory and practice in the voice and visual aspects of radio and television performance. In addition, this course introduces the skills used to acquire and deliver news stories in a digital media format. Students will learn how to research issues and events, interview news sources, interact with law enforcement and government officials, along with learning to write in a comprehensive news style.

- Counts as a Directed Elective or Elective for all diplomas
- UNIVERSITY OF SOUTHERN INDIANA dual credit may be earned.
- “Concentrator B” Course for the 2025 Radio & Television Career Pathway

**RADIO & TV BROADCASTING CAPSTONE (DOE 7308)**

**2-6 Credits    2 Semesters    Grades 11-12**

Prerequisites: Principles of Broadcasting; Audio and Video Production Essentials; Mass Media Production

This course will cover a variety of domains further building on skills in video production, and broadcast industry practices specific to radio, television, and digital media. Attention will be given to cross-industry synergies, emerging technologies, and the global market for media. Students are highly encouraged to do a video newscast or radio practicum to gain real world experience. In most cases this practicum may be completed through a school-based enterprise.

- Counts as a Directed Elective or Elective for all diplomas

**PRINCIPLES OF CRIMINAL JUSTICE (DOE 7193)**

**2 Credits            2 Semesters            Grades 11-12**

Prerequisites: Application and Interview with student and parents/guardians, Criminal Background Check, Athletic Physical on file

The class objectives will be: Gain practical law enforcement experience and training. Strength, character, and citizenship skills. Development of leadership skills. Stress of self-discipline, order, respect for authority, and chain of command. Motivation to achieve personal and professional goals through teamwork. Promote and enhance a positive image of law enforcement.

Activities include: Shooting range, Ride-Alongs, Jail & Dispatch tours, Physical Training/Drill, Uniforms are required attire for this class. VINCENNES UNIVERSITY dual credit may be earned.

- Counts as a directed elective or elective for all diplomas
- A component of the Criminal Justice Career Pathway
- Dual credit with Vincennes if student qualifies

**LAW ENFORCEMENT FUNDAMENTALS (DOE 7191)**

**2 Credits            2 Semesters            Grades 11-12**

Prerequisites: Application and Interview with student and parents/guardians, Criminal Background Check, Athletic Physical on file

The class objectives will be: Gain practical law enforcement experience and training. Strength, character and citizenship skills. Development of leadership skills. Stress of self-discipline, order, respect for authority, and chain of command. Motivation to achieve personal and professional goals through teamwork. Promote and enhance a positive image of law enforcement.

Activities include: Shooting range, Ride-Alongs, Jail & Dispatch tours, Physical Training/Drill, Uniforms are required attire for this class. VINCENNES UNIVERSITY dual credit may be earned.

- Counts as a directed elective or elective for all diplomas
- “Concentrator A” Course Criminal Justice Career Pathway
- Dual credit with Vincennes if student qualifies

**CORRECTIONS AND CULTURAL AWARENESS (DOE 7188)**

**2 Credits            2 Semesters            Grades 11-12**

Prerequisites: Application and Interview with student and parents/guardians, Criminal Background Check, Athletic Physical on file

The class objectives will be: Gain practical law enforcement experience and training. Strength, character and citizenship skills. Development of leadership skills. Stress of self-discipline, order, respect for authority, and chain of command. Motivation to achieve personal and professional goals through teamwork. Promote and enhance a positive image of law enforcement.

Activities include: Shooting range, Ride-Alongs, Jail & Dispatch tours, Physical Training/Drill, Uniforms are required attire for this class. VINCENNES UNIVERSITY dual credit may be earned.

- Counts as a directed elective or elective for all diplomas
- “Concentrator B” Course Criminal Justice Career Pathway
- Dual credit with Vincennes if student qualifies

**CRIMINAL JUSTICE CAPSTONE (DOE 7231)**

**2 Credits            2 Semesters            Grades 12**

Prerequisites: Principles of Criminal Justice; Law Enforcement Fundamentals, Corrections and Cultural Awareness

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. Note that there may be age restrictions on work-based learning components.

- Counts as a Directed Elective or Elective for all diplomas

**CRIMINAL JUSTICE WORK BASED LEARNING CAPSTONE (DOE 5974)**

**2 Credits            2 Semesters            Grades 12**

Prerequisites: Principles of Criminal Justice; Law Enforcement Fundamentals, Corrections and Cultural Awareness

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

- Counts as a Directed Elective or Elective for all diplomas

**PRINCIPLES OF WELDING TECHNOLOGY (DOE 7110)**

**2 Credits                      2 Semesters                      Grades 9-12**

Prerequisites: None

The Principles of Welding Technology course 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.

- Counts as adirected elective or elective for all diplomas

**SHIELDED METAL ARC WELDING (DOE 7111)**

**2 Credits                      2 Semesters                      Grades 10-12**

Prerequisites: Principles of Welding Technology

Shielded Metal Arc Welding provides students with exposure to both the theory behind and the practical application of the Shielded Metal Arc Welding process. Covered 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.

- Counts as adirected elective or elective for all diplomas

**GAS WELDING PROCESSES (DOE 7101)**

**2 Credits                      2 Semesters                      Grades 10-12**

Prerequisites: Principles of Welding Technology

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, flux core, 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.

- Counts as adirected elective or elective for all diplomas

**WELDING TECHNOLOGY CAPSTONE (DOE 7226)**

**1-6 Credits                      1- 2 Semesters                      Grades 11-12**

Prerequisites: Principles of Welding Technology; Shielded Metal Arc Welding; Gas Welding Processes

**\*\*NOT ALL COURSES CAN BE OFFERED EVERY YEAR\*\***

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.

- Counts as a directed elective or elective for all diplomas

## **NON-DEPARTMENTAL COURSES**

### **PEER TUTORING (DOE 0520)**

**1 Credit 1 Semester Grades 10-12**

Prerequisite: Application Process

This course is designed to teach students about various disabilities and issues facing people with disabilities. The main component of the course is direct hands-on work with students with disabilities. Acceptance into the course is based upon teacher recommendations. May be repeated for credit.

- Counts as a directed elective or elective for all diplomas
- 2 Credits Maximum may be earned

### **Computing Foundations for a Digital Age (DOE 4565)**

**1 Credit 1 Semester Grades 9-12**

Prerequisite: none Graduation requirement for the class of 2029

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.



## **HOOSIER HILLS CAREER CENTER PROGRAM** **DESCRIPTIONS**

For additional information about these courses, contact the Hoosier Hill Career Center at (812) 330-7730.

These courses may not be dropped after tuition has been paid.

To earn dual credit, additional requirements must be met including maintaining a grade of “B” or higher. See course instructors for further details.

### **AUTO COLLISION REPAIR (AM)** **6 Credits    2 Semesters    Grades 11-12**

Click [here](#) to view the flyer. Please note that MHS only participates in the Collision Repair Pathway

#### Course Overview:

The Auto Collision Repair program is a functioning commercial body shop. Students gain real-world experience through customer contact and by working with a wide variety of vehicle body problems. Students in the Auto Collision Repair course learn how to repair and refinish cars and trucks through a combination of classroom instruction and actual laboratory experience. Through a variety of skills attained in the course, students learn to analyze damage to a vehicle and replace or repair the damaged part (s).

#### Areas of Study Include:

Shop safety, Automotive body construction, Tools, Welding, Sheet metal repair, Frame straightening, Repair materials, Adjusting body panels, Painting, Refinishing, Estimating

#### Student Profile:

A successful student in Auto Body Repair should have good color discrimination, good eye/hand coordination, a keen eye for detail, and the ability to work as part of a team.

#### Special Opportunities:

During the second semester of the senior year, cooperative education placement may be available to students who have mastered the necessary competencies. ASE certification may be available to students when competencies are met. Advanced placement credits are available through Ivy Tech State College. **The Auto Collision Repair program is an ASE NATEF certified training site.**

#### Completion of the Auto Collision Repair Course Prepares Students to Become:

Body repair technician, Power equipment operator, Insurance estimator, Manager or foreman of an auto body shop, Painting or refinishing technician, Glass technician, Upholsterer

**CULINARY ARTS AND HOSPITALITY MANAGEMENT (AM)**

**6 Credits                    2 Semesters                    Grades 11-12**

*Recommended Prerequisites: Nutrition & Wellness, Advanced Nutrition & Wellness*

Click [here](#) to view the flyer. Please note that Hoosier Hills no longer has a Cosmetology program

Topics for this course include basic baking theory and skills, introduction to breads, and basic culinary fundamentals including; food safety and sanitation, knife skills, stocks, sauces, various cooking techniques, recipe costing, and culinary math. Students will experience intensive, teacher monitored, standards-based laboratory situations with commercial applications utilizing our on-site student-run restaurant. Work-based experiences in the food industry are strongly encouraged.

*Dual Credit: Ivy Tech (5 credits) HOSP 101, HOSP 102,*

**CULINARY ARTS CAPSTONE (AM)**

**6 credits                    2 Semesters                    Grade 12**

*Prerequisite: Culinary Arts and Hospitality Management*

This course builds upon the skills and techniques learned in Culinary Arts and Hospitality Management. Instruction and intensive laboratory experiences include: commercial applications of principles of nutrition, aesthetic and sanitary selection, purchasing, storage, preparation, service of food and food products, using and maintaining related tools and equipment, baking and pastry arts skills, managing operations in food service, food science, hospitality establishments, providing for the dietary needs of persons with special requirements, related research, and development and testing. Intensive laboratory experiences with commercial applications are a required component of this course of study. Student laboratory experiences may be school-based, “on-the-job” or a combination of the two. ServeSafe Certification offered.

*Dual Credit: Ivy Tech (3 credits) HOSP 105*

**FIRE RESCUE I & II (AM)**

**6 Credits                    2 Semesters                    Grades 11-12**

Click [here](#) to view the flyer.

**Goals:**

Prepare students for an entry level position and/or further educational study in the field of Firefighting and Fire Sciences. With the skills learned from this program the students will be familiar with the training, expectations, roles, and responsibilities placed upon them during fire and rescue emergencies.

**Course Objectives:**

In the Fire Sciences program the students will learn the structure, operations, and basic tactical knowledge for fire and rescue emergencies through simulated laboratory experience which includes live fire training. They will also learn the importance of team building, command structure, physical fitness, and

professionalism as it pertains to the fire service. The course is taught by two Captains in the Bloomington Fire Department.

**Program Completion Requirements:**

Student must have a passing grade, display an understanding and ability to implement employment skills necessary for certification of Firefighter I/II, and demonstrates the practical proficiencies as defined by the National Fire Protection Association (NFPA) and the Indiana Department of Homeland Security (IDHS).

**Employable Competencies:**

1. Observes Rules
2. Maintain Professional Appearance
3. Assumes Responsibilities
4. Punctuality/Attendance
5. Works Without Supervision
6. Completes Tasks as Assigned
7. Welcomes Constructive Criticism
8. Works Well with Others
9. Demonstrates a Positive Attitude
10. Performs as a Leader and a Follower

**NFPA/IDHS Practical Skills Evaluation**

1. Fire Service Communication
2. Fire Extinguishers
3. Fire Control/Suppression
4. Fire Prevention
5. Forcible Entry
6. Fire Hose
7. Ladders
8. Overhaul
9. Personal Protective Equipment
10. Rescue
11. Ropes and Knots
12. Fire Ground Safety
13. Salvage
14. Sprinklers
15. Ventilation
16. Water Supply
17. CPR

**EMERGENCY MEDICAL SERVICE--Hoosier Hills Career Center course**  
**6 Credits            2 Semesters            Grade 12**

Click [here](#) to view the flyer.

The class objectives will be: Mastering life-saving and injury preventing skills (CPR, splinting, bandaging, trauma assessment, childbirth/pediatrics, ambulance operations, spinal immobilization, airway control, and community awareness), Hands-on learning experiences, Emphasis on teamwork and leadership. IVY TECH dual credit may be earned.

- Counts as a directed elective or elective for all diplomas
- A component of the Emergency Medical Service Career Pathway

**HEALTH SCIENCE EDUCATION I (AM)**

**6 Credits            2 Semesters            Grades 11-12**

Suggested Prerequisites: Biology, Interpersonal relations, Keyboarding

Click [here](#) to view the flyer. Please note that MHS does not participate in the PLTW Biomedical Pathway

Course Overview:

Introduction to Health Care Systems is a one-year course that introduces students to the field of health care. Students completing this program will gain a working knowledge of body systems, medical terminology, and basic patient care skills common to various health occupations. Through an exploration of current issues and varied careers available in the health care industry, students will be prepared to set realistic career and continuing education goals. The course is structured to combine both classroom instruction and hands-on training in a lab setting, with an emphasis on wellness and healthy living. Students observe various health careers through job shadowing experiences.

Upon successful completion of the Introduction to Health Care Systems course, a student should be able to:

- Demonstrate a basic knowledge of medical terminology
- Understand basic human anatomy and physiology
- Understand concepts of wellness as it relates to body systems and to the whole person
- Demonstrate skills in hand washing and infection control
- Understand and apply safety rules in the student lab and at job shadow sites
- Appreciate the history of health care
- Develop skills in communication, leadership, problem solving, and professionalism
- List and describe various types of health care providers
- Perform basic first aid
- Acquire competence in skills that are suitable for entry-level employment in the field of health care
- Understand the duties and demands of various careers in health care

Special Opportunities:

Qualifying students in the Introduction to Health Care Systems program may compete in the Health Occupations Students of America (HOSA) State Conference. Top-rated students in the state competition have the opportunity to compete at the national conference.

Health Occupations instruction includes:

Introduction to the health care industry Body systems, with a focus on wellness and normal states Basic medical terminology Basic patient care skills Professionalism Communication Leadership

Completion of Introduction to Health Care Systems course prepares students for:  
Entry-level employment in the health care industry, a second year of instruction in the Health Careers / Practicum program, and post-secondary education or training.

## **HEALTH SCIENCE EDUCATION II (AM)**

**6 Credits      2 Semesters      Grades 11-12**

Suggested Prerequisites: Biology or Life Science, C average in academic subjects, or successful completion of Introduction to Health Care Systems with instructor recommendation

Click [here](#) to view the flyer. Please note that MHS does not participate in the PLTW Biomedical Pathway

### Course Overview:

This one-year program, for seniors only, takes an in-depth look at several specific careers in the health care industry. The course is designed to provide students with the types of skills needed by a variety of health care workers. In addition to a solid foundation in basic health care terminology and human body anatomy and physiology, there will be an emphasis on basic employability skills such as responsibility, dependability, customer caring, communication, and leadership. Students will spend a significant portion of the second semester in internships in community health care facilities.

### Course Outline:

Orientation, Medical Terminology, Health careers, Infection control, Meeting needs, Professionalism, Communication, Health changes and disease states, Human anatomy and physiology with related health care skills.

### Special Opportunities:

Qualifying students in the Health Careers/Practicum program may compete in the Health Occupations Students of America (HOSA) state conference. Top-rated students in the state competition have the opportunity to compete at the national conference.

### Post-secondary Education Credit:

Upon successful completion of the Health Careers/Practicum course, students may qualify for post-secondary education credit in Medical Terminology at Ivy Tech State College.

### Student Profile:

A successful student in Health Careers/Practicum should be dependable, goal-oriented, motivated, able to work independently, and have excellent interpersonal skills.

### Student Supplied Materials:

In addition to basic classroom supplies, the student must provide professional attire for shadowing experiences, scrub pants and jacket for internship, and white athletic shoes or nursing shoes.

### Health Careers/Practicum includes:

Anatomy, physiology, and medical terminology focusing on disease states. Exploration of career options in the health care industry. Instruction on skills that are universal to all health careers. Instruction on skills specific to a variety of careers.

Completion of Health Careers/Practicum prepares students for:  
Entry-level employment as a health care assistant in a variety of fields  
Post-secondary education

### **WELDING I & II (AM)**

**6 Credits                    2 Semesters                    Grades 11-12**

Recommendations: Students will need to provide some basic tools including safety glasses, welding helmet, leather welding gloves, and tape measure.

Click [here](#) to view the flyer.

#### **Course Overview:**

In this course students will learn metal fabrication processes and techniques that will enable them to pursue a variety of careers within business and industry. Students will receive instruction in the proper set-up, adjustment, maintenance and use of welding and fabrication shop equipment. The first year, exploratory in nature, study will rotate between welding and machining skill development. Second year students shall specialize in either precision machining or welding.

**Course Content:** Basic math, Print reading, Drafting, Panel restoration, Precision machining, Custom body modification, Sheet metal work,

**Dual Credit:** Offered through Ivy Tech- Wabash Valley. These credits can be obtained through completing the two-year course sequence in metal fabrication. WELD 108 Shield Metal Arc Welding I--3 credits, WELD 207 Gas Metal Arc Welding (MIG)--3 credits, WELD 208 Tungsten Gas Arc Welding--3 credits

[Back to Table of Contents](#)