

MANCHESTER JUNIOR-SENIOR HIGH SCHOOL COURSE DESCRIPTION GUIDE 2024-2025

Education services, programs, instructions and facilities will not be denied to anyone within Manchester Community Schools regardless of race, creed, disability or handicapping condition (including limited English proficiency), religion, gender, sexual orientation, ancestry, age, national origin, social or economic background, or place of residence within the boundaries of the Corporation. For further information, clarification, or complaints, please contact:

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TABLE OF CONTENTS

Manchester Jr-Sr High School Mission Statement	3
Indiana High School Diplomas & Graduation Requirements	4
Attendance Requirements	7
Early Graduation Policy	7
Academic Excellence Program	8
Honor Roll	8
Valedictorian/Salutatorian. GPA, Class Rank	9
General Information	9
Schedule Change Policy	10
Guidelines for Study Abroad	10
Postsecondary Enrollment Program	10
Controversial Subject Matter Policy	10
APEX - Independent Study	11
 Agriculture Department	 11
Agriscience	12
Landscaping	13
 Business Department	 14
 Engineering & Technology Education	 15
Engineering	16
Computer Science	17
Digital Manufacturing - Industry 4.0	18
 English Department	 18
 Family and Consumer Science Department	 22
Interior Design	24
Education Careers	24
 Fine Arts Department	 25
Vocal Music	24
Instrumental Music	26
Junior High Art	28
High School Art	28
 Mathematics Department	 31
 Multidisciplinary Courses	 35
 Physical Education/Health Department	 36
 Science Department	 38
 Social Studies Department	 41
 World Language Department	 44
 MJSHS Dual Credit Offerings	 Appendix A

MANCHESTER JR-SR HIGH SCHOOL

MISSION STATEMENT

Manchester Junior-Senior High School provides all students with learning experiences that will enable them to become intelligent, contributing members of our world community.

This course description booklet contains a list of course offerings for the coming year. It has information about credits, when courses are offered, recommended course levels, brief descriptions of courses, special course requirements, and a page for a four-year plan of study.

Parents are encouraged to work with their students by encouraging course selection based upon the student's educational and career plans. The student's interests, abilities, academic strengths, weaknesses and goals should be carefully considered when selecting a program of study.

MJSHS counselors will be meeting with students throughout the year to aid in completing their educational plans. Parents and students are encouraged to work closely with the counselors in selecting the most appropriate educational program available for the student.

Course and Credit Requirements	
English/ Language Arts	8 credits Including a balance of literature, composition and speech.
Mathematics	6 credits (in grades 9-12) 2 credits: Algebra I 2 credits: Geometry 2 credits: Algebra II <small>Or complete Integrated Math I, II, and III for 6 credits. Students must take a math course or quantitative reasoning course each year in high school</small>
Science	6 credits 2 credits: Biology I 2 credits: Chemistry I or Physics I or Integrated Chemistry-Physics 2 credits: any Core 40 science course
Social Studies	6 credits 2 credits: U.S. History 1 credit: U.S. Government 1 credit: Economics 2 credits: World History/Civilization or Geography/History of the World
Directed Electives	5 credits World Languages Fine Arts Career and Technical Education
Physical Education	2 credits
Health and Wellness	1 credit
Electives*	6 credits <small>(College and Career Pathway courses recommended)</small>
40 Total State Credits Required	

Schools may have additional local graduation requirements that apply to all students

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

**Scores updated ~~September~~, 2017

CORE40 with Academic Honors (minimum 47 credits)

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

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

CORE40 with Technical Honors (minimum 47 credits)

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

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

CLASS OF 2023 & BEYOND GRADUATION REQUIREMENTS

GRADUATION PATHWAYS PANEL (Finalized 11/7/2017)

The purpose for this Panel is to establish graduation pathway recommendations for the State Board of Education that create an educated and talented workforce able not just to meet the needs of business and higher education, but able to succeed in all postsecondary endeavors. To account for the rapidly changing, global economy, every K-12 student needs to be given the tools to succeed in some form of quality postsecondary education and training, including an industry recognized certificate program, an associate's degree program, or a bachelor's degree program.

These recommendations seek to ensure that every Hoosier student graduates from high school with 1) a broad **awareness** of and **engagement** with individual career interests and associated career options, 2) a strong foundation of **academic** and **technical skills**, and 3) **demonstrable employability skills** that lead directly to meaningful opportunities for postsecondary education, training, and gainful employment.

Students in the graduating class of 2023 must satisfy all three of the following Graduation Pathway Requirements by completing one of the associated Pathway Options:

Graduation Requirements	Graduation Pathway Options
1) High School Diploma	Meet the statutorily defined diploma credit and curricular requirements.
2) Learn and Demonstrate Employability Skills¹ (Students must complete <u>at least one</u> of the following.)	Learn employability skills standards through locally developed programs. Employability skills are demonstrated by <u>one</u> of the following: <ul style="list-style-type: none"> • Project-Based Learning Experience; OR • Service-Based Learning Experience; OR • Work-Based Learning Experience.²
3) Postsecondary-Ready Competencies³ (Students must complete <u>at least one</u> of the following.)	<ul style="list-style-type: none"> • Honors Diploma: Fulfill all requirements of either the Academic or Technical Honors diploma; OR • ACT: College-ready benchmarks; OR • SAT: College-ready benchmarks; OR • ASVAB: Earn at least a minimum AFQT score to qualify for placement into one of the branches of the US military; OR • State- and Industry-recognized Credential or Certification; OR • State-, Federal-, or Industry-recognized Apprenticeship; OR • Career-Technical Education Concentrator: Must earn a C <u>average</u> or higher in at least 6 high school credits in a career sequence; OR • AP/IB/Dual Credit/Cambridge International courses or CLEP Exams: Must earn a C <u>average</u> or higher in at least three courses; OR • Locally created pathway that meets the framework from and earns the approval of the State Board of Education.

**If students do NOT meet all three boxes, students can apply for a waiver. The waiver requires that students must show that they attempted 3 items in Box #3, 95% attendance or better in high school, an average of a 2.0 GPA (C average) in 34 required classes, meet state and local graduation requirements & have some kind of postsecondary plan.*

Program of Studies (Class of 2025 & Beyond)

Career Pathway	Freshman	Sophomore	Junior	Senior
Business Administration		Principles of Business	Management Fundamentals	Accounting Fundamentals
Agriscience	Principles of Agriculture	Animal Science	Food Science	Capstone (3 credit hours)
Landscaping	Principles of Agriculture	Horticulture Science	Landscape & Turf Management	Capstone (3 credit hours)
Education Careers	Principles of Teaching	Child & Adolescent Development	Teaching & Learning	Capstone (3 credit hours)
Interior Design		Interior Design Fundamentals	Materials, Finishes & Design	Capstone (3 credit hours)
Computer Science	Principles of Computing	Topics in Computer Science & Computer Science A AP (2 credit hours)		Capstone (3 credit hours)
Engineering	Intro. to Engineering	Principles of Engineering AND Computer Integrated Manufacturing (2 credit hours)	Engineering Design & Development (3 credit hours)	Capstone (3 credit hours)
Fine Arts (Band)	Beginning Band	Intermediate Band AND Intro. to Business	Adv. Band	
Fine Arts (Choir)	Beginning Choir	Intermediate Choir AND Intro. to Business	Adv. Choir	
Fine Arts (Art)	Intro. to 2-D AND Intro. to 3-D	Adv. 2-D OR Adv. 3-D AND Intro. to Business		
	*All Heartland classes will fulfill a Program of Study and can be taken during junior & senior year			
	*Senior capstone classes are recommended by the state, but not required for graduation			
	Classes that are required to complete the pathway for graduation.			
	Optional classes to further explore each pathway.			

CERTIFICATE OF ATTENDANCE

Seniors who meet or exceed the minimum state and local academic credit and attendance requirements will receive the Manchester Certificate of Attendance. (Students who do not pass or successfully appeal the HSE)

CERTIFICATE OF COMPLETION

Seniors who are designated as "non-diploma" track students, but have completed the prescribed individual educational program (IEP) and attendance at Manchester Jr-Sr High School will receive a Manchester Certificate of Completion.

ATTENDANCE AND GRADUATION REQUIREMENTS

To be considered a full time student at Manchester Jr-Sr High School, a student is required to be in attendance seven periods daily for eight semesters and carry a minimum of six classes each semester. A student who wants to attend school less than seven periods a day during any semester will be considered for a shortened day schedule under the following guidelines:

1. Medical hardship - must have documentation from a physician requesting less than full day schedule for medical reasons.
2. Financial hardship - must be considered an independent student by providing his or her own living expenses or by providing support for a biological child.
3. Be a returning student whose intended date of graduation has passed.

A letter requesting a shortened day schedule should be submitted to the principal for approval. The approval for a shortened day schedule will be made after a conference with the student's counselor regarding the student's educational plan.

A student who wants to graduate with less than eight (8) semesters of school attendance must:

1. Complete an early graduation application by September 30th of their last semester/year.
2. Have the required semesters of school attendance and credits for graduation after an evaluation of their educational plan with a guidance counselor.

EARLY GRADUATION POLICY

(applications can be found in the Guidance Office)

Manchester Jr-Sr High School does not encourage attempts to complete a course of study for high school graduation in less than four full academic years. However, MJSHS will accept modification of the four year attendance requirement for high school graduation provided the student has satisfactorily completed the requirements for graduation as set forth by the State Board of Education and the Manchester Board of Education. Students planning to graduate early must notify their school counselor within the first week of the first semester of their senior year or within the first week of the first semester of their junior year (for 6 semester graduates). Making this decision earlier than this deadline will permit the student to work with his/her counselor to develop a plan. In order to graduate early, a student must complete a minimum of six (6) semesters or three years of high school attendance and have successfully completed the terms of the Manchester Community Schools Graduation Requirements.

1. The student must declare the intent to graduate early, by the beginning of their senior status, but **no later than September 30th of the year they intend to graduate.**
2. The student must have accumulated 33 required credits by the start of their senior status or 25 by the start of their junior status.
3. A student must have *the required* 40 credits prior to graduation. If a student does not earn these credits, the student will not graduate early and will have forfeited the privileges granted to seniors (senior pictures, senior prom, senior trip, etc.) because they have already participated in their senior year. The completion of their credits will be discussed by a committee and the student will finish their classes in the manner decided by this committee.
4. The student must complete an application, obtained from their counselor, containing an explanation of why the student is requesting early graduation and including an approval by parents of the request to graduate early. This application is due within one week of the first day of school. This application is due before September 30th.

5. Students with unusual circumstances will be considered on an individual basis, through application to the Principal.
6. The maximum number of days of absence allowable is determined by statute and will be considered with a student's application.
7. Truancy, tardiness, detentions, suspension and general conduct will be considered by the committee.
8. Students will not be allowed to take more than 2 courses online for early graduation.
9. Students must be able to complete a pathway prior to graduating or have passing test results to be considered for early graduation.
10. Students will not be allowed early graduation as a junior if they are earning a General Diploma.
11. Early graduates will forgo their class rank and it may not be listed on their final transcript. Also they will not be eligible for valedictorian or salutatorian.
12. Students will be required to have a post high school plan aligned with their abilities.
13. Students graduating after 6 semesters will be placed in senior classes, as well as any other courses needed; these students will be considered seniors.

If approval is given, the student will be scheduled to allow him/her to accumulate sufficient credits to fulfill graduation requirements at the end of the first semester of the senior status. He/she will not receive a diploma until commencement. However, a letter will be issued stating the student has fulfilled graduation requirements at the end of the first semester, per student request. The student may participate in commencement ceremonies but should advise the senior class advisors of the intent to participate or not to participate prior to February 1st. Students fulfilling graduation requirements early are not eligible to compete in any sports, clubs, or extracurricular activities once they have graduated. Seniors will be allowed to participate in their senior trip and prom. Juniors graduating after 6 semesters will be considered seniors.

ACADEMIC EXCELLENCE PROGRAM

Purpose: To recognize and honor students in grades 4-12 who have achieved a degree of academic excellence.

Criteria: Each student's grade point average (GPA) must equal A- with no less than a B in all subjects taken for credit. The GPA will be figured from the Spring Semester grades of the previous school year and the Fall Semester grades of the current school year.

The Academic Excellence Awards Program for students and parents will be held in the early Spring.

HONOR ROLL

Every class carried by the student will be considered when preparing the Honor Roll. Incomplete grades will not be considered in the calculation. Students who have earned a D or F in any class will be ineligible for Honor Roll consideration. Honor Roll will be calculated and published at the end of each semester. Honor Roll levels are indicated below.

- Highest Honor Roll - 3.800-4.00 Grade Point Average
- High Honor Roll - 3.500 - 3.799 Grade Point Average
- Regular Honor Roll - 3.1 - 3.499 Grade Point Average

VALEDICTORIAN / SALUTATORIAN (Class of 2024-2027)

Determination for the valedictorian and salutatorian will be configured by the following: Any student intent on running for Valedictorian and/or Salutatorian must earn an Academic Honors Diploma and take and earn credit in at least five Dual Credit and/or Advanced Placement (AP) classes from the following list:

- | | |
|---|---|
| • Pre-Calculus (dual credit) | • Agribusiness Management (dual credit) |
| • Trigonometry (dual credit) | • AP Environmental Science |
| • Probability & Statistics (dual credit) | • AP Biology |
| • Principles of Agriculture (dual credit) | • Intro. To Engineering (dual credit) |
| • United States Government (dual credit) | • Principles of Engineering (dual credit) |
| • Animal Science (dual credit) | • Landscape Management (dual credit) |
| • Horticulture Science (dual credit) | • Computer Science I (dual credit) |
| • Food Science (dual credit) | • Computer Science A AP |

- AP Calculus AB
- AP Studio Art 2-D
- AP Studio Art 3-D
- AP Studio Art Drawing
- AP United States History
- AP English Literature & Composition
- AP English Language & Composition
- AP Human Geography

*Students graduating early will not be eligible for valedictorian/salutatorian (please see MJSHS early graduation application).

GRADE POINT AVERAGE / CLASS RANK

Class of 2024-2027

Each student's grade point average (GPA) is based on all grades received each semester in grades 9-12 (including high school classes taken during 8th grade such as: Intro. To Agriculture, Preparation for College & Careers, Algebra I Honors, Biology Honors, Intro. To Business, etc.). GPA is figured on a 4.0 scale. Class rank includes all diploma-track students in the class and is figured at the end of each semester, including the 8th semester. Class rank and grade point average are noted on the student transcript at the end of each semester.

Class of 2028 & Beyond

To compute the grade point average, the total number of grade points earned is divided by the total credits attempted (not the total credits earned). Averages are figured cumulatively. In other words, the total points for all semesters of school work are divided by the total credits attempted for all semesters. Manchester Jr Sr High School utilizes a weighted grading system to recognize and reward academic work in selected courses that follow a national curriculum or are given college credit by an accredited university (i.e. dual credit & advanced placement courses). The grades of students entering Manchester Jr Sr High School from a school using weighted grades will be converted to Manchester Jr Sr High School's point values. The courses coming in will be given weight if there is the same exact course(s) offered at Manchester Jr Sr High School.

Full weight of 1 point on a 4.0 scale will be added to a high school course grade in Advanced Placement & dual credit courses beginning with the class of 2028 for core classes only (ex: any AP or dual credit English, math, science or social studies class). (Ex: An A grade in an AP or dual credit core course will earn 5 points instead of 4 points for a student's grade point average). Dual credit must be earned in order for a student to earn the full weighted point. If dual credit isn't earned no extra point will be given.

Weighted Courses:

Manchester Jr/High School:

Pre-Calculus (dual credit)
 Trigonometry (dual credit)
 Probability & Statistics (dual credit)
 English Language & Composition AP
 Environmental Science AP
 Biology AP
 Calculus AB AP
 United States History AP
 English Literature & Composition AP
 Human Geography AP

GENERAL INFORMATION

Each of the semesters within the school year is 18 weeks (or 90 days) in length. Students can take six classes and one study hall or seven classes each semester. Periods are 45-50 minutes in length with a five minute passing period between classes.

Students involved in athletic programs are required to be passing in five credit classes at the end of the 1st nine weeks grading period and at the end of the semester.

Students who receive incomplete grades for a grading period have ten school days to complete their work.

SCHEDULE CHANGE POLICY

When students receive a copy of their schedules, they should carefully read the schedule for accuracy of courses requested and needed to meet graduation requirements. Students have the first three days of each semester to make any changes to their schedule. Any changes to a student's schedule after the 4 ½ weeks mark will result in a withdrawal fail (W/F) on the student's transcript.

GUIDELINES FOR STUDY ABROAD

The criteria for determining eligibility to participate in the program are:

1. We recommend that the student does not have any grades of "F" for any class.
2. We recommend the student be a Junior or Senior, unless traveling with his or her family.
3. We recommend that the student be on track for graduation.
4. We will need a grading policy and scale from the exchange school on official letterhead as well as the titles, course descriptions, and contact hours of the courses the student will take.
5. The guidance department will develop an individual plan of study before the student's departure based upon the student's needs in order to complete all courses necessary to meet state and local graduation requirements.

Upon Return:

1. We need a course description in English for each course taken from the foreign school, and
2. An official transcript including grades, course names, grading scale, attendance, name, address, and phone number of host school.
3. Manchester Jr-Sr. High School will determine credits earned from the classes taken at the foreign school. The credits awarded and the grades accepted will be based on course descriptions and their alignment with the Indiana Academic Standards and meeting the state code for instructional time.

POSTSECONDARY ENROLLMENT PROGRAM

The criteria for determining eligibility to participate in the program are:

1. The student and parent/guardian must assume all financial responsibility imposed by the eligible institution for tuition and enrollment fees, as well as all transportation and materials costs which might be involved.
2. The student must complete the pre-enrollment procedures outlined by Manchester High School and the eligible institution.

The criteria for determining the courses approved for secondary credit under the program are:

1. The postsecondary credit course must correspond to the approved course list in 511 IAC 6-2-5 (d). A course in which the student intends to enroll will not be approved for secondary credit if the course is so unlike any of the approved courses listed in 511 IAC 6-2-5 (d) that appropriate secondary credit cannot be given.
2. Secondary credit shall be given for the successful completion of an approved course taken by an eligible student at an eligible institution on the following basis: 1 high school credit for 3 college semester credit hours earned.

The grade received in the approved course taken at the eligible institution shall be included in the computation of the student's grade point average.

***IF A STUDENT DROPS THEIR POSTSECONDARY CLASS STUDENTS MUST ENROLL IN CLASSES AT THE HIGH SCHOOL TO ENSURE ENROLLMENT IN SIX OUT OF SEVEN CLASSES.**

CONTROVERSIAL SUBJECT MATTER POLICY

If a course of study contains material that is found objectionable (on moral or religious grounds) to students or parents, two alternatives are available: 1. The student may be excused from the classroom discussion portion of the material (assigned to study hall), but retain the book or written material. In this case, the student may take whatever exams are given over the material and receive credit earned. 2. The student may be excused from the classroom discussion and not retain the written material. In this case, the student will not take exams and will not receive credit for the unit, but will also not be penalized in regard to the student's grade. An alternative unit will be assigned and expected to be completed for credit to be issued.

APEX

APEX is an online, work at your own pace educational program. Students may **ONLY** take an Apex course for the following reasons:

1. Credit Recovery - Students must fail a regular schedule course at least once before attempting this course on Apex.
2. Advanced Placement or Honors courses – Students may choose to take courses that we do not offer at MJSHS.
3. Schedule Conflicts.

AGRICULTURE DEPARTMENT

Agriculture Education is an active part of the curriculum for many high schools in Indiana. This program area combines the home, the school, and the community as a means of education in agriculture. The courses provide students with a solid foundation of academic knowledge and ample opportunities to apply this knowledge through classroom activities, laboratory experiments and project applications, supervised agricultural experiences, and the FFA.

The vision and mission of Agricultural Education is: that all people value and understand the vital role of agriculture, food, fiber, and natural resource systems in advancing personal and global well-being; and that students are prepared for successful careers and a lifetime of informed choices in agriculture.

It is important to understand and reaffirm that career-technical experiences do not preclude students from going on to higher education; in fact participation actually enhances the opportunity. A growing number of students are combining both college preparation and workplace experiences in their high school preparation. Agricultural Science and Business and the FFA programs have a long history of successfully preparing students for entry level careers and further education and training in the science, business and technology of agriculture. The programs combine classroom instruction and hands-on career focused learning to develop students' potential for premier leadership, personal growth, and career success.

FFA

FFA is a vocational student organization and is an integral part of the program of instruction in agricultural education. The many activities of the FFA parallel the methodology of the instructional program and are directly related to occupational goals and objectives. As an integral part of the instructional program, district and state level FFA activities provide students opportunities to demonstrate their proficiency in the knowledge, skills, and attitudes they have acquired in the agricultural science and agricultural business education program of instruction. Students shall be rewarded/recognized for their competence. Agricultural education students demonstrating a high degree of competence in state level FFA activities are highly encouraged to represent their local communities, districts and state by participating in national FFA activities.

Instructional activities of the FFA require participation of Agricultural Science and Agricultural Business Education students as an integral part of an Agricultural Education course of instruction and therefore, may be considered an appropriate use of the allotted instructional time; however, vocational student organization activities may not disrupt the instructional time of other academic courses.

Exploring Agricultural Science & Business

Grade 7 * 1 semester * No Credits

The Agricultural Science and Business curriculum for middle school students follows the state standards of the Fundamentals of Agricultural Science and Business course. There is flexibility in content due to the length of the course offered locally. The primary objective is to introduce students to the dynamic industry of agriculture while gaining an awareness of the importance, impact and diversity of careers in agricultural science and business. The content provides a hands-on exploratory, science-based approach to agri-science as well as providing a broad-based coverage of horticulture, animal science, environmental science, biotechnology, agricultural economics, plant and soil science, and agricultural science and agribusiness tools and equipment.

Introduction to Agriculture, Food, & Natural Resources

Grades 8 * 2 Semesters * 2 Credits

(Directed elective for all diploma types)

A student's FFA experience can begin in this course with the opportunity to participate in career development events, leadership development events, and various other FFA activities. The FFA Discovery Degree can be earned here as well as judging team and public speaking honors. Introduction to Agriculture, Food, and Natural Resources is a year-long course which is highly recommended as a prerequisite and foundation for all other agricultural classes. The nature of this course is to provide students with an introduction to the fundamentals of agricultural science and business. Areas to be covered include: agricultural literacy, its importance and career opportunities, plant and soil science, environmental science, horticulture and landscape management, agricultural biotechnology, agricultural science and business tools and equipment, basic principles of and employability in the agricultural/horticultural industry, basic agribusiness principles and skills, developing leadership skills in agriculture, and supervised experience in agriculture/horticulture purposes and procedures. Student learning objectives are defined. Instruction includes not only agriculture education standards but many academic standards are included through the use of "hands-on" problem-solving individual and team activities.

***The final grade will be on the student's permanent high school transcript and will be factored into high school GPA and class rank.**

Principles of Agriculture

[AGRI 100 Introduction to Agriculture dual credit thru Ivy Tech]

Grades 9-11 * 2 Semesters * 2 Credits

(Elective or directed elective for all diploma types)

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

AGRISCIENCE

Animal Science

[AGRI 103 Animal Science dual credit thru Ivy Tech]

Grades 10-12 * 2 Semesters * 2 Credits

(Core 40 directed elective for all diploma types)

Animal Science is a course that provides students with an overview of the field of animal science. All areas which the students study can be applied to large and small animals. Topics to be addressed include: anatomy and physiology, genetics, reproduction, nutrition, aquaculture, careers in animal science, common diseases and parasites, social and political issues related to the industry, and management practices for the care and maintenance of animals. This course may fulfill up to two credits of the state's minimum life science requirement for graduation.

Prerequisite: Intro. to Agriculture, Food and Natural Resource or by permission of the teacher

Food Science

[AGRI 104 Food Science dual credit thru Ivy Tech]

Grades 10-12 * 2 Semesters * 2 Credits

(Directed elective)

Food Science is a course that provides students with an overview of food science and its importance. Introduction to principles of food processing, food chemistry, nutrition, food packaging, food commodities, food regulations, and careers

in the food science industry help students understand the role which food science plays in the securing of a safe, nutritious, and adequate food supply. A project-based approach is utilized along with laboratory, team building, and problem solving activities to enhance student learning.

This course may fulfill up to two credits of the minimum science requirement for graduation.

LANDSCAPING

Horticulture Science

Offered 2024-2025

[AGRI 116 Survey of Horticulture dual credit thru Ivy Tech]

Grades 10-12 * 2 Semesters * 2 Credits

(Directed elective for all diploma types)

Horticultural Science is a year long course designed to give students a background in the field of horticulture. It addresses the biology and technology involved in the production, processing, and marketing of horticultural plants and products. Topics covered include: reproduction and propagation of plants, plant growth, growth media, management practices for field and greenhouse production, marketing concepts, production of herbaceous, woody and nursery stock, fruit, nut, and vegetable production, and pest management. This course may fulfill up to two credits of the state's minimum life science requirement for graduation.

Prerequisite: Intro. to Agriculture, Food and Natural Resource or permission of teacher

Landscape and Turf Management

Offered 2025-2026

[AGRI 164 Landscape Design I dual credit thru Ivy Tech]

Grades 10-12 * 2 Semesters * 2 Credits

(Elective or directed elective for all diploma types)

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.

Prerequisite: Principles of Agriculture

Supervised Agricultural Experience (SAE)

Grades 11-12 * 1-4 Semesters * 1-4 Credits

(Summer Class Only)

(Directed elective for all diploma types)

Supervised Agricultural Experience (SAE) is designed to provide students the opportunity to gain experience in the agricultural field(s) in which they are interested. Students experience and apply what is learned in the classroom to real-life situations. Students work closely with their agricultural science and business teacher(s), parents, and/or employers to get the most out of their SAE program. This course is to be offered each semester as well as during the summer session. The course may be offered on an independent study basis. A maximum of four credits can be earned in this course, some of which can be earned during summer sessions.

Prerequisite: Intro. to Agriculture, Food and Natural Resource or by permission of the teacher

BUSINESS DEPARTMENT

Introduction to Business

Grades 8-12 * 1 Semesters * 1 Credits

(Directed elective or elective for all diploma types)

Introduction to Business introduces students to the world of business, including the concepts, functions, and skills required for meeting the challenges of operating a business in the twenty-first century on a local, national, and/or international scale. The course covers business management, entrepreneurship, marketing fundamentals, and business ethics and law. The course develops business vocabulary and provides an overview of business and the role that business plays in economic, social and political environments.

***The final grade will be on the student's permanent high school transcript and will be factored into high school GPA and class rank.**

Principles of Business

Grades 10-12 * 2 Semesters * 2 Credits

(Directed elective or elective for all diploma types)

Principles of Business examines American business including business ownership, organization principles and problems, management, control facilities, administration, financial management, and development practices of American business enterprises. This course will also emphasize the identification and practice of the appropriate use of technology to communicate and solve business problems and aid in decision making. Attention will be given to developing business communication, problem-solving, and decision-making skills using Microsoft Word, Excel, Access, and PowerPoint.

***Must meet Ivy Tech dual credit qualifications in order to take as dual credit**

Management Fundamentals

Grades 11-12 * 2 Semesters * 2 Credits

(Directed elective or elective for all diploma types)

Management Fundamentals describes the functions of managers, including the management of activities and personnel. Describes the judicial system and the nature and sources of law affecting business. Studies contracts, sales contracts with emphasis on Uniform Commercial Code Applications, remedies for breach of contract and tort liabilities. Examines legal aspects of property ownership, structures of business ownership, and agency relationships.

Accounting Fundamentals

Grades 12 * 2 Semesters * 2 Credits

(Directed elective or elective for all diploma types)

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.

Principles of Entrepreneurship

Grades 12 * 2 Semesters * 2 Credits
(Directed elective or elective for all diploma types)

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

New Venture Development

Grades 12 * 2 Semesters * 2 Credits
(Directed elective or elective for all diploma types)

New Venture Development is targeted to students interested in creating and growing their own businesses. The course will focus on key marketing strategies particularly relevant for new ventures. Students will apply marketing concepts to entrepreneurial company challenges, which include creating and nurturing relationships with new customers, suppliers, distributors, employees and investors; and understand the special challenges and opportunities involved in developing marketing strategies “from the ground up.”

Small Business Operation

Grades 12 * 2 Semesters * 2 Credits
(Directed elective or elective for all diploma types)

Small Business Operation will help students identify and evaluate the various sources available for funding a new enterprise; demonstrate an understanding of financial terminology; read, prepare, and analyze basic financial statements; estimating capital requirements and risk, exit strategies; and prepare a budget for their business, including taxes and personnel costs. In addition, the student should be able to explain the importance of working capital and cash management. The student should also be able to identify financing needs, and prepare sales forecasts.

ENGINEERING & TECHNOLOGY EDUCATION

Engineering Essentials

Grade 8 * 1 Semesters * 1 Credit/Semester

Engineering Essentials is designed as a first-exposure experience to inspire students of all backgrounds to explore the breadth of engineering-related career opportunities. Throughout the course, students explore global engineering challenges and sustainability goals, the impact of engineering, and the variety of career paths available to them. Students will understand the various disciplines within the engineering field, approach and solve problems in different ways, use a variety of industry tools, and build an engineering mindset.

***The final grade will be on the student's permanent high school transcript and will be factored into high school GPA and class rank.**

Introduction to Construction

Grade 8-12 * 1 Semesters * 1 Credit/Semester

Introduction to Construction is a course that will offer hands-on activities and real-world experiences related to the skills essential in residential, commercial and civil building construction. During the course students will be introduced to the history and traditions of construction trades. The student will also learn and apply knowledge of the care and safe use of hand and power tools as related to each trade. In addition, students are introduced to blueprint reading, applied math, basic tools and equipment, and safety. Students will demonstrate building construction techniques, including concrete

and masonry, framing, electrical, plumbing, dry walling, HVAC, and painting as developed locally in accordance with available space and technologies. Students learn how architectural ideas are converted into projects and how projects are managed during a construction project in this course. Students study construction technology topics such as preparing a site, doing earthwork, setting footings and foundations, building the superstructure, enclosing the structure, installing systems, finishing the structure, and completing the site. Students also investigate topics related to the purchasing and maintenance of structures, special purpose facilities, green construction and construction careers.

***The final grade will be on the student's permanent high school transcript and will be factored into high school GPA and class rank.**

ENGINEERING

Introduction to Engineering Design (non-PLTW)

**[DESN 101 Intro. To Design Technology & DESN 113 2-D
Computer Aided Design dual credit through Ivy Tech]**

Grade 9-12 * 2 Semesters * 2 Credits

(Directed elective or elective for all diploma types)

Introduction to Engineering and Design is an introductory course which develops student problem solving skills using the design process. Students document their progress of solutions as they move through the design process. Students develop solutions using elements of design and manufacturability concepts. They develop hand sketches using 2D and 3D drawing techniques. Computer Aided Design(CAD). Students learn the fundamentals of technical drawings (blueprints).

Principles of Engineering (non-PLTW)

[DESN 104 Mechanical Graphics dual credit thru Ivy Tech]

Grades 10-12 * 2 Semesters * 2 Credits

(Directed elective or elective for all diploma types)

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

Prerequisites: Introduction to Engineering Design

Computer Integrated Manufacturing

Grades 11-12 * 2 Semesters * 2 Credits

(Directed elective or elective for all diploma types)

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.

Prerequisites: Introduction to Engineering Design

Engineering Design & Development

Grades 11-12 * 2 Semesters * 6 Credits

(Directed elective or elective for all diploma types)

Engineering Design and Development is an engineering research course in which students work in teams to research, design, test and construct a solution to an open-ended engineering problem. The product development life cycle and a design process are used to guide the team to reach a solution to the problem. The team and/or individual(s) communicates their solution to a panel of stakeholders at the conclusion of the course. As the capstone course in the Engineering Pathway, EDD engages students in critical thinking, problem-solving, time management, and teamwork skills.

Prerequisites: Introduction to Engineering Design, Principles of Engineering & one pre-engineering speciality course

COMPUTER SCIENCE

Principles of Computing

[CS 102 Great Ideas in Computer dual credit thru Indiana University]

Grade 9-11 * 2 Semesters * 2 Credits

(Directed elective or elective for all diploma types)

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.

Topics in Computer Science

Grade 10-11 * 2 Semesters * 2 Credits

(Directed elective or elective for all diploma types)

Topics in Computer Science is designed for students to investigate emerging disciplines within the field of computer science. Students will use foundational knowledge from 7183 Principles of Computing to study the areas of data science, artificial intelligence, app/game development, and security. Students will utilize knowledge related to these areas and programming skills to develop solutions to authentic problems.

Prerequisite: Principles of Computing

Computer Science A AP

Grade 11-12 * 2 Semesters * 2 Credits

(Fulfills a science course for all diplomas & qualifies as a quantitative reasoning course)

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

Prerequisite: Principles of Computing

DIGITAL MANUFACTURING - INDUSTRY 4.0

Principles of Industry 4.0 - Smart Manufacturing

**[SMDI 110 Intro. To Industrial Internet of Things & SMDI 111 Technology in
Smart Manufacturing in Digital Integration dual credit thru Ivy Tech]**

Grades 9-11 * 2 Semesters * 2 Credits

Principles of Industry 4.0 introduces students to the Industrial Internet of Things (IIoT). Students will explore Industry 4.0 technologies such as artificial intelligence (AI), human to robot collaboration, big data, safety, electrical, sensors, digital integration, fluid power, robot operation, measurement, CAD, CNC, additive manufacturing, print reading, and technical mathematics. Students will complete hands-on labs, virtual simulations, projects, and critical thinking assignments to help prepare for SACA C-101 Certifies Industry 40. Associate I - Basic Operations certification exam.

Smart Manufacturing Systems

Grades 11-12 * 2 Semesters * 2 Credits

Smart Manufacturing Systems will deepen students' technical skills by studying the electrical system required to support an Industry 4.0 manufacturing system and building on skills learned in Principles of Industry 4.0 and Robotics Design and Innovation. Topics include Industry 4.0 technologies such as data analytics, cyber security, and smart sensors. Students will work on a 4-6 student team to build a working prototype of an Industry 4.0 system. Highlights include: Variable Frequency Drives, PLC troubleshooting, Cyber Security, Smart Sensors, and Smart network communications.

Prerequisites: Principles of Industry 4.0 - Smart Manufacturing; Robotics Design and Innovation

ENGLISH DEPARTMENT

Language Arts 7

Grade 7 * 2 Semesters * No Credit

Language Arts, Grade 7, is a standards-based course of integrated instruction emphasizing reading, writing, speaking, and listening at age-appropriate content. Students develop advanced skills and strategies in reading. They learn to make comparisons. They begin to use their knowledge of roots and word parts to understand science, social studies, and mathematics vocabulary. Students learn and apply vocabulary of literary terms. Students select books of interest and read independently for enjoyment. Using oral discussion, reading, writing, art, music, and drama, students respond to fiction, nonfiction, and informational selections or reality-based experiences, multimedia presentations, and classroom experiences. They will often work in groups. They examine research and write, sometimes to take a position on a topic, and they support their positions by citing a variety of sources. They write or present argumentative assignments that state a clear position. In class, students will read major pieces of work, such as, but not limited to, *A Christmas Carol* and *The Watsons Go to Birmingham*. Students also listen to literature read aloud to them and write independently for enjoyment.

Language Arts 7 Honors

Grade 7 * 2 Semesters * No Credit

Students must qualify for this class based on the high ability guidelines or a combination of teacher recommendation and test scores. Language Arts 7 Accelerated will often follow the same curriculum as Language Arts 7, but with the acceleration of basic skill work, which opens up opportunities for more in-depth examination of topics. A discussion format encourages divergent, multi-layered, outside-the-box thinking on the part of class participants. In Honors, students will read major pieces of work, such as, but not limited to, *A Christmas Carol* and *The Miracle Worker*.

Creative Dramatics

Grade 7 * 1 Semester * No Credit

Theater enables students to use movement, voice, and language effectively to create characterizations in a wide variety of historical and cultural contexts. Improvisation enables them to demonstrate an understanding of the concepts of space, time and mannerisms in character portrayals. Additionally, students write scripts based on personal experience, imagination, history and literature. Students increase their awareness of vocational opportunities in the theater arts and learn to develop criteria for the evaluation of recorded and live performances.

Language Arts 8

Grade 8 * 2 Semesters * No Credit

Language Arts, Grade 8 is a standards-based course that integrates instruction emphasizing reading, writing, speaking, listening at age-appropriate content. Students continue to study the history and development of English vocabulary. They begin to compare different types of writing as well as different perspectives on similar topics or themes. They evaluate the logic of information texts and analyze how literature reflects the backgrounds, attitudes, and beliefs of the authors. They read and respond to fictional selections, such as classic and contemporary literature, and historical fiction. They also read and respond to nonfiction selections, such as subject area books, biographies, autobiographies, magazines, newspapers, various reference or technical materials, and online information. Students select books of interest and read independently for enjoyment. Students get ready for the language challenges of high school materials using oral discussion, reading, writing, art, music, movement, and drama. Students respond to fiction, nonfiction, and informational selections or reality-based experiences, multimedia presentations and classroom group experiences. They not only write or deliver research reports, but also conduct their own research. They deliver a variety of types of presentations and effectively respond to questions and concerns from the audience. Students also listen to literature read aloud to them and write independently for enjoyment.

Language Arts 8 Honors

Grade 8 * 2 Semesters * No Credit

Language Arts 8 Honors will follow the same curriculum as Language Arts 8, but with the acceleration of basic skill work, which opens up opportunities for more in-depth examination of topics. A discussion format encourages divergent, multi-layered, outside-the-box thinking on the part of class participants. Novel/Reading include *The Giver* by Lois Lowry, *Fahrenheit 451* by Ray Bradbury, and *The Outsiders* by S.E. Hinton.

English 9

Grade 9 * 2 Semesters * 2 Credits

English 9 is a standards-based course with the integrated study of language (grammar and etymology), literature, composition, and oral communication with a focus on reading a wide-variety of genres and their elements. Students use literary interpretation, analysis, comparisons, and evaluation to respond to works of historical or cultural significance appropriate for Grade 9 in classic and contemporary literature balanced with nonfiction. Major works usually include *To Kill a Mockingbird* by Harper Lee and *Romeo and Juliet* by William Shakespeare. Students write responses to literature, and argumentative/persuasive compositions following MLA academic style. Students deliver grade-appropriate oral presentations and access, analyze, and evaluate online information.

English 9 Honors

Grade 9 * 2 Semesters * 2 Credits

Students must qualify for this class based on the high ability guidelines or a combination of teacher recommendation and test scores. English 9 Honors will follow the same curriculum as English 9, but with the acceleration of basic skill work which opens up opportunities for more in-depth examination of topics. A discussion format encourages divergent, multi-layered, outside-the-box thinking on the part of class participants.

English 10

Grade 10 * 2 Semesters * 2 Credits

English 10 is a standards-based course with the integrated study of language, literature, composition, and oral communication with a focus on exploring universal themes across a wide variety of genres. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to representative works of historical or cultural significance appropriate for Grade 10. Students will study classic and contemporary literature balanced with nonfiction. Selections may include *Of Mice and Men*, *Animal Farm*, *Lord of the Flies*, *Julius Caesar* or *Macbeth*. Students will write narratives, responses to literature, expository and argumentative/persuasive compositions, and research reports. Students deliver grade-appropriate oral presentations and access, analyze, and evaluate online information.

English 10 Honors

Grade 10 * 2 Semesters * 2 Credits

Honors English 10 is a course that provides challenging experiences for the student in the areas of critical reading, critical thinking, effective discussion, essay test-taking, expository writing and research. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to representative works of classic and contemporary literature balanced with nonfiction. Students write responses to literature, expository (informative), and argumentative/persuasive compositions, and explore the research process. Students experience project based learning as well as deliver grade-appropriate oral presentations with attention to audience and purpose and access, analyze, and evaluate online information. Novel options include: *1984* and *Animal Farm* both by George Orwell, *Lord of the Flies* by William Golding, *A Tale of Two Cities* by Charles Dickens, and *Ashfall* by Mike Mullin. Plays by William Shakespeare include *Macbeth* and/or *Julius Caesar*.

American Literature

Grade 11 * 1 or 2 Semesters * 1 or 2 Credits

This course is a study of representative works and authors of the United States. Students read, analyze, evaluate, critique, and actively respond to a wide variety of literary genres that reflect American culture, including quality works of various ethnic and cultural minorities. Students compare readings and media from literature, history, and other subjects by demonstrating how the ideas and concepts presented in the works are interconnected, distinctly American, and important to an understanding of the development of the current culture. Students write and deliver grade-appropriate multimedia presentations and access, analyze, and evaluate online information. While a year long course, it is recommended that students enroll in one core grade level English class if pairing with an elective course such as Speech, Creative Writing, or Journalism. Novel selections include *The Great Gatsby* by F. Scott Fitzgerald, *Spoon River Anthology* by Edgar Lee Masters, *Looking for Alaska* by John Green, and/or *A Lesson before Dying* by Earnest Gaines.

English 12

Grade 12 * 1 or 2 Semesters * 1 or 2 Credits

English 12 is a course focused on the exploration of point of view and perspective across a variety of fiction and non-fiction works. This course also emphasizes employability skills in resume and cover letter writing as well as job search related skills. Public speaking and interview skills are also emphasized. The writing in this course includes business style writing of letters of inquiry and application as well as personal narrative and expository essays. Students also do reflective writing associated with current fiction and nonfiction pieces which may include these titles: *Tallgrass* by Sandra Dallas, *The Other Wes Moore* by Wes Moore, *Tuesdays with Morrie* by Mitch Albom, *The Color of Water* by James McBride, and *American Dirt* by Jeanine Cummins. Students write and deliver grade-appropriate multimedia presentations and access, analyze, and evaluate online information as well as utilizing visual information in the form of pictures, graphs, and tables. It is recommended that students enroll in one core grade level English class if pairing with an elective course such as Speech, Creative Writing, or Journalism.

AP Language & Composition
[ENG 143 dual credit through Trine University]
Grade 11-12 * 2 Semesters * 2 Credits

This AP English Language and Composition is an introductory College-level composition and non-fiction literature course that engages students with thought-provoking essays, speeches and articles of historical and cultural significance. Students cultivate their understanding of writing and rhetorical arguments through reading, analyzing, and writing texts as they explore topics like rhetorical situations, claims, and evidence, reasoning and organization, and style. This course is highly recommended for students who are planning to attend college.

View Course Description web page at:

<http://apcentral.collegeboard.com/apc/public/courses/descriptions/index.html>

AP Literature & Composition
Grade 12 * 2 Semesters * 2 Credits

The AP English Literature and Composition course aligns to an introductory college-level literary analysis and composition 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 enjoyment. Students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Discussion and group work play a significant role in the classroom. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literature.

Course Description web page at: <http://apcentral.collegeboard.com/apc/public/courses/descriptions/index.html>

Prerequisite: AP Language & Composition or Advanced Composition

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

(Fulfills 1 credit for English requirement, 11th or 12th grade, for all diplomas)

Advanced Composition, a course based on the Indiana Academic Standards for English/Language Arts, is a study and application of the rhetorical writing strategies of exposition and persuasion. Students write expository critiques of nonfiction selections, persuasive compositions, and research essays in addition to other appropriate writing tasks.

Speech
Grades 10-12 * 1 Semester * 1 Credit

(Fulfills 1 credit for English requirement, 11th or 12th grade, for all diplomas)

This course is designed to build skills in oral communication. Speaking in front of other students in the class is required on multiple occasions. Vocal techniques will be studied and practiced as well as different types of oral interpretation. The course focuses on building stronger communications skills emphasizing articulation, tone, phrasing, pacing, volume, movement, gestures, and body language. Students will present from prepared scripts as well as memorization. They will perform demonstrations utilizing multimedia and visual aids, original oratory, radio, print and video as part of an advertising campaign, oratorical interpretation of historic and notable speeches, and impromptu as well as reader's theater pieces. This is a relevant course for students who want to improve their public speaking skills and become an improved public speaker.

Journalism

Grades 9-12 * 1 Semester * 1 Credit

(Fulfills 1 credit for English requirement, 11th or 12th grade, for all diplomas)

Journalism provides students an opportunity to learn about the field of journalism and develop skills in writing, photography, and design. They will interview and write stories in AP Journalistic Style as well as learning about Press Law and Ethics. Students will examine publications and learn solid journalism fundamentals such as the 5 W's and H, inverted pyramid style news writing, editing, and feature writing. The course culminates in students being able to write, design, and photograph a spread topic of their choosing. This is a class for students with an interest in developing journalistic skills or in learning more about the field of Journalism.

Creative Writing

Grades 10-12 * 1 Semester * 1 Credit

(Fulfills 1 credit for English requirement, 11th or 12th grade, for all diplomas)

In this course students will write in a variety of formats with an emphasis on poetry. They should come into the class with an interest in developing their writing skills. Throughout the course, students will share and critique their writing with their classmates and polish their work. They will examine models and develop their writing through a multistage approach. They will foster an awareness of voice and audience in creating their pieces. Students who enjoy writing or who want to improve their writing skills should enroll in this course.

Student Media

Grades 10-12 * 1-7 Semesters * 1-7 Credits

Prerequisite - Journalism or Teacher Recommendation

(Directed elective or Fine Arts credit)

Student Media is a course that applies the skills that were learned in Journalism One and puts those into practical application in the construction of a yearbook. Students are able to further develop their skills in journalistic writing, photography, and design as they develop content driven pieces for publication. Students learn and develop editorial guidelines based on an understanding of Press Law and Journalistic ethics. This course also includes conducting interviews, writing feature stories, creating design modules, and developing themes and ideas that relate to the year and to the students who attend the school. The students learn and develop secondary coverage as well as managing a student publication. Working on a student publication prepares students for careers in journalism, graphic design, photography, and communication related fields.

Prerequisite: Journalism or teacher recommendation

FAMILY AND CONSUMER SCIENCE DEPARTMENT

Family and Consumer Sciences courses are designed for all students (both male and female) with the core content of all classes being focused upon the well-being of individuals and families. College-bound and tech prep students will find the courses practical for present and future living. For Core 40, these courses are appropriate for the "8 additional credits" category and six classes from this area fulfill the "at least six credits in a logical sequence from a technical career area" requirement or as Core 40 electives. Students may substitute three credits of Family and Consumer Sciences courses for the state graduation requirement, Health and Safety. The three designated courses that must be taken to meet this requirement are: Preparing for College and Careers, Nutrition and Wellness, Interpersonal Relationships, Adult Roles and Responsibilities or Child Development.

Grade 8 * 1 Semester * No Credit

FACS 8 will explore the different FACS courses offered at the high school level and will help guide decisions on a program of study towards high school graduation. Topics include Nutrition, Interior Design/Housing, Fashion/Textiles, and Early Childhood Education. The class will include 1 sewing project, cooking labs, and other hands-on projects.

Preparing for College & Careers

Grade 8 * 1 Semester * 1 Credit

**(Directed elective or elective for all diploma types
& counts towards Health & Wellness credit)**

Preparing for College and Careers covers the essential knowledge, skills, and behaviors that all students need to live successfully in today's world. This course emphasizes a project-based approach using higher order thinking, communication, leadership, and management. Topics include personal aptitudes, interests, and goals; life and career exploration and planning; life roles and responsibilities as individuals and family members and transferring school skills to live and work. The opportunity to develop four year career plans with assistance from a counselor will be included. Personal and career portfolios should be developed. This is a foundational course designed to teach life skills that are essential for all high school students.

5 lessons are part of the Community Foundation Early Award Scholarship

*** The final grade will be on the student's permanent high school transcript and will be factored into high school GPA and class rank.**

Nutrition & Wellness

Grades 10-12 * 1 Semester * 1 Credit

**(Directed elective or elective for all diploma types
& counts towards Health & Wellness credit)**

Nutrition & Wellness is an introductory course that covers kitchen safety and sanitation, basic food preparation skills, six nutrition classes, food label reading, careers, and how to make healthy food and lifestyle choices. There is a hands-on lab component that goes along with this course. Food labs start once safety and sanitation has been covered. Food labs will be about baking, breads, pie dough, eggs, and meat.

Child Development

Grades 10-12 * 1 Semester * 1 Credit

**(Directed elective or elective for all diploma types
& counts towards Health & Wellness credit)**

This course studies the growth and development of children from conception through age 1. Decisions about family planning, parenthood, prenatal care, birth defects, and childbirth are discussed. Physical, social, emotional, and mental development is studied. This course includes the take home baby project and pregnancy simulation. Must sign a human sexuality waiver.

INTERIOR DESIGN

Interior Design Fundamentals

Grades 9-12 * 2 Semesters * 2 Credits

(Directed elective or elective for all diploma types)

Interior Design Fundamentals provides students with an overview of the field of interior (environmental) design, including an understanding of fundamental construction knowledge and skills needed in the field. Exercises include small scale

space analysis and functional planning based on user needs, furniture arrangement and selection, materials and finishes considerations and presentation techniques. Students will also learn basics regarding building practices, building structures, residential construction techniques, building materials and plan reading. Includes building codes, sustainable design practices, and the preparation of site and construction plans, elevations, sections, three-dimensional drawings details and hand rendering as they relate to construction and presentation drawings.

Prerequisite: Principles of Interior Design

Materials, Finishes & Design

Grades 10-12 * 2 Semesters * 2 Credits

(Directed elective or elective for all diploma types)

Materials, Finishes, and Design examines the physical properties and characteristics of furniture, materials, finishes, and architectural detailing. The course includes an intensive study of textiles, including fiber sources, identification and classification to finish and sustainable qualities. Students will apply textile knowledge to interior textile fabrications including window treatments, upholstery, carpet and wall coverings. Content addresses environmental issues and problems in specifying, estimating, and installing these materials.

Prerequisites: Principles of Interior Design & Interior Design Fundamentals

EDUCATION CAREERS

Principles of Teaching

Grades 9-12 * 2 Semesters * 2 Credits

(Directed elective or elective for all diploma types)

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.

Child & Adolescent Development

Grades 10-12 * 2 Semesters * 2 Credits

(Directed elective or elective for all diploma types)

Child & 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 media are discussed. An observation experience up to 20hrs. May be required for completion of this course.

Teaching & Learning

Grades 10-12 * 2 Semesters * 2 Credits

(Directed elective or elective for all diploma types)

Teaching & 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.

FINE ARTS DEPARTMENT

VOCAL MUSIC

The vocal music program at Manchester High School is designed to expose students to a variety of quality music, from classical to contemporary, during their two years of junior high and four years of high school. All vocal students enrolled in chorus will work in a group setting toward correct vocal technique, music reading, sight singing, and ear training, in conjunction with performance-related goals.

Vocal Music 7 & 8

Grades 7 & 8 * 2 Semesters * No Credit

Jr High choir is based on the Indiana Academic Standards for Music and provides students the opportunity to apply knowledge and skills learned in the elementary music curriculum by participating in choir classes. Work in choir classes provides group and solo activities and is designed to develop students' musicianship including vocal production, music literacy, technical skills, and performance skills. The primary goal of this class is the performance of vocal literature of various styles, historical periods, and world cultures. Additional objectives include music theory; improvising and composing music; and listening to, analyzing, and evaluating music. Students participate in performance opportunities outside of the school day that support and extend the learning in the classroom. While this course is a year-long commitment, occasional exceptions may be made by permission of the teacher.

Beginning Chorus (Treble)

Grades 9-12 * 2 Semesters * 2 Credits

(Directed elective or Fine Arts credit)

The Beginning Choir at the high school level is designed for those female students in grades 9-12 who are entering high school or taking choir for the first time. This is a performing group giving concerts for the public outside of the school day at least twice per semester. Choir classes learn ear training, correct vocal technique, sight singing, music reading, music theory, and music history and appreciation. This course meets daily and students will enroll in both semesters. Students taking Beginning Chorus develop musicianship and specific performance skills through ensemble and solo singing. This class is a treble chorus, consisting of sopranos and altos. Activities create the development of a quality repertoire in the diverse styles of choral literature appropriate in difficulty and range for the students. The course provides instruction in creating, performing, conducting, listening to, and analyzing, in addition to focusing on the specific subject matter. Students develop the ability to understand and convey the composer's intent in order to connect the performer with the audience. Instruction is designed to enable students to connect and integrate music into other subject areas. While this course is a year-long commitment, occasional exceptions may be made by permission of the teacher.

Students must participate in a limited number of performance opportunities, outside of the school day, that support and extend learning in the classroom.

Intermediate Chorus

Grades 10-12 * 2 Semesters * 2 Credits

Intermediate Chorus is based on the Indiana Academics Standards for High School Choral Music. Students taking Intermediate Chorus develop musicianship and specific performance skills through ensemble and solo singing. This class includes the study of quality repertoire in the diverse styles of choral literature appropriate in difficulty and range for the students. Chorus classes provide opportunities for performing, creating and responding to music. Students develop the ability to understand and convey the composer's intent in performance of music. This class meets daily both semesters and performs regularly throughout the year. Students must participate in performance opportunities, outside of the school day, that support and extend learning in the classroom. While this course is a year-long commitment, occasional exceptions may be made by permission of the teacher.

Prerequisite: Beginning Choir

Advanced Chorus
Grades 11-12 * 2 Semesters * 2 Credits
(Directed elective or Fine Arts credit)

The Advanced Choir at the high school level is designed for those male and female students in grades 9-12. Students need to be willing and able to meet the challenges of more advanced sight singing and repertoire. Students will participate in performance opportunities outside of the school day. This course meets daily and students will enroll in both semesters. Students taking Advanced Chorus develop musicianship and specific performance skills through ensemble and solo singing. This class is a mixed chorus, consisting of sopranos, altos, tenors, and basses. Activities create the development of a quality repertoire in the diverse styles of choral literature appropriate in difficulty and range for the students. The choral repertoire must be of the highest caliber. Mastery of basic choral technique must be evident. Areas of refinement include a cappella singing, sight-reading, and critical listening skills. The class provides instruction in creating, performing, conducting, listening to, and analyzing, in addition to focusing on the specific subject matter. Students develop the ability to understand and convey the composer's intent in order to connect the performer with the audience. Instruction is designed to enable students to connect and integrate music into other subject areas. This is an advanced mixed choral group, for female students in grades ten through twelve and male students in grades 9-12. In special cases a 9th grade female will be considered for admittance. This class meets daily both semesters and performs regularly throughout the year. Students must participate in performance opportunities, outside of the school day, that support and extend learning in the classroom. This course may be taken for successive semesters. While this course is a year-long commitment, occasional exceptions may be made by permission of the teacher.

Prerequisite: Beginning & Intermediate Choir

Applied Music-Guitar/Piano
Grades 10-12 * 1 or 2 Semesters * 1 or 2 Credits
(Directed elective or Fine Arts credit)

Applied Music courses offer high school students in Grades 10-12 the opportunity to receive small group and individual instruction in an area of focus on Guitar or Piano. This course is designed to develop and refine performance skills on their instrument. A variety of music methods and repertoire is utilized to refine students' abilities in learning, performing, creating, and responding to music. Students receive 1 credit per semester and may take this course more than one semester as long as steady progress is being made. Independent Study on a band instrument can also be arranged with the instructor. This is a laboratory course.

INSTRUMENTAL MUSIC

The instrumental music program at Manchester Jr-Sr High School is designed to expose students to a variety of quality music, from classical to contemporary, during their two years of junior high and four years of high school. All instrumental music students enrolled in band will work in a group setting toward correct instrumental technique, music reading, sight-reading, and music theory skills in conjunction with performance-related goals.

Instrumental Music (Band 7/8)
Grades 7/8 * 2 Semesters * No Credit

Students taking Instrumental Music are provided with the opportunity to apply knowledge learned in the elementary music curriculum by beginning or continuing to play an instrument. Instruction is designed so that students connect, examine, imagine, define, try, extend, refine, and integrate music study into other subject areas. The instrumental classes provide instruction in any of the following areas: (1) woodwinds, (2) brass, (3) percussion, and (4) keyboard instruments which include electronic and/or synthesizer-type instruments. Ensemble and solo activities are designed for students to develop basic elements of musicianship including, but not limited to: (1) tone production, (2) technical skills, (3) intonation, (4) music reading skills, (5) listening skills, (6) analyzing music; and (7) studying historically significant styles of literature. Experiences include, but are not limited to, improvising, playing by ear, and sight-reading. Students are given opportunities to participate in performances, outside the school day, that support and extend the learning in the classroom.

While this course is a year-long commitment, occasional exceptions may be made by permission of the teacher. An elective course.

Beginning Concert Band

Grades 10-12 * 2 Semesters * 2 Credits

(Directed elective, elective, or Fine Arts credit)

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.

Intermediate Concert Band

Grades 10-12 * 2 Semesters * 2 Credits

(Directed elective, elective, or Fine Arts credit)

Students taking Intermediate or Advanced Concert Band will continue to study their instrument they began learning in intermediate school. Instruction is designed so that students examine and refine their understanding of music. Students will also be encouraged to make broad connections between music and their other classes in a variety of ways. The instrumental class provides instruction in any of the following areas: (1) woodwinds, (2) brass, and (3) percussion instruments. Ensemble and solo activities are designed for students to develop advanced levels of musicianship including, but not limited to: (1) tone production, (2) technical skills, (3) intonation, (4) music reading skills, (5) listening skills, (6) music theory skills, including composing music, and (7) understanding historically significant styles of literature.

Students develop elements of musicianship including instrumental playing skills, music reading, listening skills and tone production through ensemble and solo activities.

Experiences also include improvising, playing by ear, sight-reading and conducting. Students are required to participate in performance opportunities outside of the school day which support and extend learning in the classroom. This course should be taken for successive semesters. Marching Band is included as part of this class. While this course is a year-long commitment, occasional exceptions may be made by permission of the teacher.

Prerequisite: Beginning Band

Advanced Concert Band

Grades 11-12 * 2 Semesters * 2 Credits

(Directed elective, elective, or Fine Arts credit)

Advanced 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.

Prerequisite: Beginning & Intermediate Band

Marching Band

Grades 9-12 * 1 Semester * No Credit/1 Credit

Marching band is an elective ensemble that begins with a mandatory band camp during the month of July. During this time marching fundamentals, music, and portions of the competition show are learned. Each member of the band is strongly encouraged to participate in marching band. During the fall, the band performs for each home football game, area parades, and marching competitions. The band strives each year to advance past the sectional and regional levels of ISSMA marching band contests.

In order to be in Marching Band, a student must have been in band at least two previous years, or by director approval. Marching band meets outside of school regularly. Credit is not received for membership in this ensemble except for years when a summer school music credit is offered.

Jazz Band

Grades 9-12 * 1-2 Semesters * No Credit

Jazz band is a select ensemble of up to 20 members in grades 7 - 12. This is an auditioned group. Membership is open to any student who wishes to audition. Membership is open to any student who wishes to audition. While it is recommended that a student have previous experience in either band or choir, it is not required. This group serves as a public outreach ensemble for the instrumental department. They perform at community events and service organizations. Jazz Band will meet outside of school on years when it is not offered as a class. Credit is not received for membership in this ensemble. Instrumentation is open to any combination of instruments.

JUNIOR HIGH ART

Junior High Art classes include four major units:

1. Drawing & Design
2. Sculpture & Ceramics
3. Painting, Color Theory & Mixed Media
4. Art History

Junior High Art is a time for students to be introduced to a variety of 2D & 3D visual art media and techniques in addition to learning about famous artists who have influenced our culture. The studio art projects are designed to teach basic visual literacy as well as inspire creative problem solving. Life skills of respect toward others, building self-confidence, collaboration, safe use of art tools and 'thinking outside the box' are integrated into each lesson. Students may take Junior High Art to fulfill a fine arts credit, as a foundation for art courses in upper grades or to begin a path of an art career for the future.

Art 7

Grade 7 * 1 Semester * No Credit

This is a beginning course that introduces the students to the Elements of Art/Principles of Design and how these fundamental concepts work together to create quality artworks. Students are made aware of the ways art is relevant to their lives primarily through 2-D and 3-D projects and exploration of Art History lessons. Units include drawing, 1-pt. perspective, ceramics, painting, sculpture, mixed-media and art history. The units are based in art analysis, art criticism, aesthetics with a focus on studio production. Assignments are designed to challenge/develop abstract thinking and problem solving. This course is a prerequisite for Advanced Art 8 courses.

Art 8

Grade 8 * 1 Semester * No Credit

This is an intermediate course designed to build on the knowledge and skills that were introduced in Art 7. A more independent approach to creative thinking is encouraged and applied to 2-D and 3-D studio art lessons that illustrate how art can be both decorative and functional. Units include drawing, 1-pt. & 2pt. perspective, ceramics, painting, sculpture, mixed-media and art history with both individual and group projects. The units are based in art analysis, art criticism and aesthetics with a focus on studio production. Art career awareness and an introduction to the high school art courses are included.

HIGH SCHOOL ART

Students taking any of the offered art courses in grades 9-12 engage in sequential learning experiences that encompass art history, art criticism, aesthetics and production based on the Indiana Visual Arts Academic Standards. The creation of portfolio quality works is the goal of the art curriculum.

- Art history-students identify and compare themes, symbols, styles and ideas in works of art and artifacts from past and present civilization. Students identify how works of art and artifacts reflect the beliefs, values and ideas of a culture.
- Art criticism-students continue to examine works of art for meaning and significance.
- Students make informed judgments about works of art through comparing, analyzing and interpreting them.
- Aesthetics-students are aware that people think about and respond to works of art in a variety of ways and begin to engage in a meaningful dialogue about those ideas or issues.
- Production-students communicate ideas and emotions through problem-solving activities.

They begin to develop artistic skills in a variety of 2-D and 3-D media.

Intro to 2-D Art

Grades 9-12 * 1 Semester * 1 Credit

(Directed elective, elective, or Fine Arts credit)

Introduction to Two-Dimensional Art focuses on the basic elements, principles, and techniques of all Two-Dimensional surfaces and materials. Students will gain understanding of how to create a strong composition on a page and how to divide space within those compositions. Basic design principles, using value to create form, and color theory make up the bulk of this course. Students will experiment with graphite, colored pencil, charcoal, china marker, ink, pastel, watercolor paint, acrylic paint, collage, and other mixed media materials. Students will be exposed to art history throughout the course and begin to explore their own creative voice. This course may be taken as a way to gain fine arts credits, find out if you would like to take more art classes, or it may be a jumping off point for an Arts Pathway during high school.

Advanced 2-D Art

Grades 9-12 * 1 Semester * 1 Credit

(Directed elective, elective, or Fine Arts credit)

Advanced 2D is for students who have taken Intro to 2D and find themselves wanting to know more about drawing, painting and collage. Students will complete a variety of upper level works that emphasize strong design and detailed drawing and painting techniques. Students will work in larger format, with higher quality materials, and in more creative compositional ways during Advanced 2D. Students will revisit graphite, colored pencil, charcoal, china marker, ink, pastel, watercolor paint, acrylic paint, collage, and other mixed media materials.

Prerequisite: Intro. To 2-D

*Students who have already taken both 2D and Advanced 2D can further their study by continuing with a Drawing or Painting course.

Intro to 3-D Art

Grades 9-12 * 1 Semester * 1 Credit

(Directed elective, elective, or Fine Arts credit)

Introduction to Three-Dimensional Art focuses on the basic elements, principles, and techniques of all Three-Dimensional surfaces and materials. Students will gain understanding of how to create a strong composition in the round. Basic 3D design principles, building with found materials, and beginning clay techniques and vocabulary will be explored. Students

will experiment with paper, cardboard, found materials, book binding materials, wood, plaster, and clay. Students will be exposed to art history throughout the course and begin to explore their own creative voice. This course may be taken as a way to gain fine arts credits, find out if you would like to take more art classes, or may be a jumping off point for an Arts Pathway during high school.

Advanced 3-D Art

Grades 9-12 * 1 Semester * 1 Credit

(Directed elective, elective, or Fine Arts credit)

Advanced 3D is for students who have taken Intro to 3D and find themselves wanting to know more about ceramics or sculpture. Students will complete a variety of upper level works that emphasize strong design and detailed clay and sculpture techniques. Students will work in larger format, with higher quality materials, and in more creative compositional ways during Advanced 3D. Students will revisit graphite, colored pencil, charcoal, china marker, ink, pastel, watercolor paint, acrylic paint, collage, and other mixed media materials.

Prerequisite: Intro. To 3-D

*Students who have already taken both 3D and Advanced 3D can further their study by continuing with a Ceramics or Sculpture course.

STUDIO ART AP CLASSES

The AP Studio Art experience is designed for students who are seriously interested in the practical experience of art. Success in AP Studio Art is not based on a written exam; instead, students submit artwork for evaluation at the end of the school year. At this time students may choose to complete either of the three AP choices--2D design, Drawing, or AP 3D. This College Board program provides the only national standard for performance in the visual arts that allows students to earn college credit and/or advanced placement while still in high school. The AP Program is based on the premise that college-level material can be taught successfully to secondary school students.

COMMITMENT: Any student that is willing to accept the challenge of rigorous academic curriculum should consider admission for this AP course. AP studio is for highly motivated students who are seriously interested in the study of art. This is a two-semester course designed to be completed within one school year. Students purchase their own supplies from a provided list.

AP Studio Art: Drawing

[ARTS 100 Life & Object Drawing I dual credit thru Ivy Tech]

Grades 11-12 * 2 Semesters * 2 Credits

(Directed elective, elective, or Fine Arts credit)

Prerequisite: Intro. To 2-D or Adv. 2-D Art

***Must meet Ivy Tech dual credit qualifications in order to take as dual credit**

AP Studio Art: 2-D Design

[ARTS 102 Color & Design Theory I dual credit thru Ivy Tech]

Grades 11-12 * 2 Semesters * 2 Credits

(Directed elective, elective, or Fine Arts credit)

Prerequisite: Intro. To 2-D or Adv. 2-D Art

***Must meet Ivy Tech dual credit qualifications in order to take as dual credit**

AP Studio Art: 3-D Design

[ARTS 103 3-D Design dual credit thru Ivy Tech]

Grades 11-12 * 2 Semesters * 2 Credits

(Directed elective, elective, or Fine Arts credit)

Prerequisite: Intro. To 2-D or Adv. 2-D Art

***Must meet Ivy Tech dual credit qualifications in order to take as dual credit**

MATHEMATICS DEPARTMENT

All students will enter Manchester High School on the Core 40 diploma track and are required to start with Algebra I. **Students who took Algebra I Honors in grade 8 with a B- or higher minimum grade should begin with Geometry in grade 9. Students who want to retake Algebra I should consult their counselor. If lower than a B- students will retake Algebra I. By teacher recommendation, any student in an honors math class should earn at least a B- to continue into the next honors math class.**

Math 7

Grade 7 * 2 Semesters * No Credit

Mathematics grade seven standards are made up of five strands: Number Sense; Computation; Algebra and Functions; Geometry and Measurement; and Data Analysis, Statistics, and Probability. The skills listed in each strand indicate what students in grade seven should know and be able to do in mathematics. Grade seven continues the trajectory towards a more formalized understanding of mathematics that occurs at the high school level that began in grade six. Students extend ratio reasoning to analyze proportional relationships and solve real-world and mathematical problems; extend previous understanding of the number system and operations to perform operations using all rational numbers; apply properties of operations in the context of algebraic expressions and equations; draw, construct, describe, and analyze geometric figures and the relationships between them; apply understandings of statistical variability and distributions by using random sampling, making inferences, and investigating chance processes and probability models. Using the Process Standards for Mathematics in a planned and deliberate method to present the mathematics content standards will prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of the mathematics. Along with the current academic standards, the Science/Technical Studies Content Area Literacy Standards are incorporated in the teaching of this subject with the expectation of a continuum of reading and writing skills development.

Introduction to Algebra 7

Grade 7 * 2 Semesters * No Credit

Introduction to Algebra 7 will provide students a deeper understanding of problem solving and extend the grade eight standards that are made up of five strands: Number Sense; Computation; Algebra and Functions; Geometry and Measurement; and Data Analysis, Statistics, and Probability. The skills listed in each strand indicate what students in grade eight should know and be able to do in mathematics. Grade eight continues the trajectory towards a more formalized understanding of mathematics that occurs at the high school level that was started in grades 6 and 7. Students extend their understanding of rational numbers to develop an understanding of irrational numbers; connect ratio and proportional reasoning to lines and linear functions; define, evaluate, compare, and model with functions; build understanding of congruence and similarity; understand and apply the Pythagorean Theorem; and extend their understanding of statistics and probability by investigating patterns of association in bivariate data. Using the Process Standards for Mathematics in a planned and deliberate method to present the mathematics content standards will prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of the mathematics. Along with the current academic standards, the Science/Technical Studies Content Area Literacy Standards are incorporated in the teaching of this subject with the expectation of a continuum of reading and writing skills development.

Introduction to Algebra 8

Grade 8 * 2 Semesters * No Credit

Mathematics grade eight standards are made up of five strands: Number Sense; Computation; Algebra and Functions; Geometry and Measurement; and Data Analysis, Statistics, and Probability. The skills listed in each strand indicate what

students in grade eight should know and be able to do in mathematics. Grade eight continues the trajectory towards a more formalized understanding of mathematics that occurs at the high school level that was started in grades 6 and 7. Students extend their understanding of rational numbers to develop an understanding of irrational numbers; connect ratio and proportional reasoning to lines and linear functions; define, evaluate, compare, and model with functions; build understanding of congruence and similarity; understand and apply the Pythagorean Theorem; and extend their understanding of statistics and probability by investigating patterns of association in bivariate data. Using the Process Standards for Mathematics in a planned and deliberate method to present the mathematics content standards will prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of the mathematics. Along with the current academic standards, the Science/Technical Studies Content Area Literacy Standards are incorporated in the teaching of this subject with the expectation of a continuum of reading and writing skills development.

Algebra I Honors

Grade 8 * 2 Semesters * 2 Credits

Honors Algebra will provide students a deeper understanding of problem solving and extend their algebraic experiences from previous grades. Special attention will be given to developing logic skills. Algebra I formalizes and extends the mathematics students learned in the middle grades. Algebra I is made up of six strands: Real Numbers and Expressions; Functions; Linear Equations, Inequalities, and Functions; Systems of Equations and Inequalities; Quadratic and Exponential Equations and Functions; and Data Analysis and Statistics. These critical areas deepen and extend understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend. Students will also engage in methods for analyzing, solving, and using quadratic functions. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

***The final grade will be on the student's permanent high school transcript and will be factored into high school GPA and class rank. Students must earn a B- or higher to move on to Geometry Honors.**

Algebra I

Grades 9-12 * 2 Semesters * 2 Credits

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

Geometry

Grades 9-12 * 2 Semesters * 2 Credits

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

Prerequisite: Algebra I

Geometry Honors

Grade 9 * 2 Semesters * 2 Credits

Honors Geometry will provide students a deeper understanding of problem solving and extend their geometric experiences from the middle grades. Special attention will be given to developing logic skills and forming mathematical arguments. Proofs will be much more in depth and will be used more throughout the entirety of the course. Geometry formalizes and extends students' geometric experiences from the middle grades. Seven critical areas comprise the Geometry course: Logic and Proofs; Points, Lines, Angles, and Planes; Triangles; Quadrilaterals and Other Polygons; Circles; Transformations; and Three-dimensional Solids. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

Prerequisite: Algebra I Honors passed with at least a B- or teacher recommendation

Algebra II

Grades 9-12 * 2 Semesters * 2 Credits

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

Prerequisite: Geometry

Algebra II Honors

Grades 9-12 * 2 Semesters * 2 Credits

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

Prerequisite: Algebra I Honors passed with at least a B-

Algebra II (12)

Grade 12 * 2 Semesters * 2 Credits

This course is designed for students who will NOT be taking higher-level mathematics in college. This course is a continuation of concepts learned in Algebra I and will introduce advanced algebra topics. It provides opportunities for problem solving and graphing. Included topics are the same as Algebra II but with less depth. Does NOT qualify as a prerequisite for any advanced math courses.

Prerequisite: Geometry

Business Math

Grades 10-12 * 2 Semesters * 2 Credits

(Fulfills math requirement for General Diploma or Certificate of Completion ONLY)

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

Prerequisite: Algebra I

Pre-Calculus

[MA 15300 Algebra & Trigonometry I dual credit thru PFW]

Grades 10-12 * 1 Semester * 1 Credit

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

***Must meet PFW dual credit qualifications in order to take as dual credit**

Trigonometry

[MA 15400 Algebra & Trigonometry II dual credit thru PFW]

Grades 10-12 * 1 Semester * 1 Credit

Trigonometry provides students with the skills and understandings that are necessary for advanced manipulation of angles and measurement. Trigonometry provides the foundation for common periodic functions that are encountered in many disciplines, including music, engineering, medicine, finance, and nearly all other STEM disciplines. Trigonometry consists of six strands: Unit Circle; Triangles; Periodic Functions; Identities; Polar Coordinates and Complex Numbers; and Vectors. Students will advance their understanding of imaginary numbers through an investigation of complex numbers and polar coordinates. A strong understanding of complex and imaginary numbers is a necessity for fields such as engineering and computer programming. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

***Must meet PFW dual credit qualifications in order to take as dual credit**

Probability & Statistics

[MA 12500 Communicating with Statistics dual credit thru PFW]

Grades 11-12 * 1 Semester * 1 Credit

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

mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

Prerequisite: Algebra II

***Must meet PFW dual credit qualifications in order to take as dual credit**

AP Calculus AB

Grades 11-12 * 2 Semesters * 2 Credits

AP Calculus AB is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. AP Calculus AB is equivalent to a first semester college calculus course devoted to topics in differential and integral calculus. This course covers topics in these areas, including concepts and skills of limits, derivatives, definite integrals, and the Fundamental Theorem of Calculus. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

Prerequisite: Pre-Calculus and Trigonometry with a grade of B or better & if taken as dual credit students must have completed Pre-Calculus (MA 15300 & 15400) as dual credit through IPFW

Requirement: Recommendation of the Department

MULTIDISCIPLINARY COURSES

JAG

Grades 11 & 12 * 2 yr. Program * 4 Credits

(Elective credit)

Jobs for America's Graduates (JAG) is designed to assist students successfully transition from high school to post-secondary training, employment, and/or military services, by eliminating barriers that may prevent or delay success. Students learn to set goals, develop job readiness skills, as well as learn of the local labor market through employer contact, speakers, job shadowing, internships and tours of businesses and industries. JAG requires students to participate in a student-led Career Association to demonstrate social and civic responsibility.

Career Association membership will also help build leadership skills and help students learn how to work effectively in a group setting. Students may be required to participate in activities outside the normal school day. Group and individual instruction in attaining employability skills is based on a set of 37 core competencies. Students must participate in follow up services for 12 months after graduation.

Career Exploration Internship

Grade 10-12 * 1-2 Semesters * 1-4 Credits

(Elective credit)

The Career Exploration internship course is a paid or unpaid work experience in the public or private sector that provides for workplace learning in an area of student career interests. Unlike the Work Based Learning capstone course in which students gain expertise in a specific occupation, the career exploration internship is intended to expose students to broad aspects of a particular industry or career cluster area by rotating through a variety of work sites or departments. In addition to their workplace learning activities, students participate in 1) regularly scheduled meetings with their classroom teacher, or 2) a regularly scheduled seminar with the teacher for the purpose of helping students make the connection between academic learning and their work-related experiences. Specific instructional standards tied to the career cluster or pathway and learning objectives for the internship must be written to clarify the expectations of all parties - the student, parent, employer, and instructor.

***All students taking this class will work in The Bean, which is the school coffee shop.**

Physical Education/Health Department

The list of activities at each grade level reflects the current philosophy of the P.E. department as well as the trend toward learning lifetime fitness skills. Not only will the activities listed improve students' cardiovascular, muscular, and flexibility fitness, it will also expose students to a variety of fitness activities so their fitness knowledge will increase the likelihood of being a physically fit adult. Students will be required to complete assessments that include written and performance based skills at MJSHS.

Physical Education is largely based upon students' participation in class activities. Any student who refuses to bring the proper clothes and participate in activity does not deserve a passing grade regardless of any other work completed.

DRESS: Athletic apparel (at teacher's discretion)

- Tops: T-shirt (no cut-offs or tank tops)
- Bottoms: athletic shorts, sweats, wind pants, leggings, yoga pants (no spandex shorts)
- Shoes: athletic shoes

If dress code isn't followed, it will result in a deduction of points.

Physical Education/Health & Wellness 7

Grade 7 * 1 Semester * No Credit

Junior high school health education provides for the continued development of attitudes and behaviors related to becoming a health-literate individual. This course includes the major content areas in a planned, sequential, comprehensive health education curriculum as expressed in the Indiana Health Education Proficiency Guide: (1) Growth and Development; (2) Mental and Emotional Health; (3) Community and Environmental Health; (4) Nutrition; (5) Family Life Education; (6) Consumer Health; (7) Personal Health; (8) Alcohol, Tobacco, and Other Drugs Education; (9) Prevention of Unintended Injury and violence; and (10) Health Promotion and Disease Prevention.

This course focuses on skill and skill application that will assist students in building competencies for health literacy. These may include decision-making skills, stress management skills, social skills, and assertiveness skills. The adolescent student has instructional opportunities to investigate how health behaviors impact health, well-being, and disease prevention and to accept personal responsibility for health-related decisions.

Physical Education 8

Grades 8 * 1 Semester * No Credit

Physical education 7th and 8th grade emphasizes both health related and skill related fitness. Psychomotor skills continue to be developed and refined through: 1) participation in a variety of individual, dual, and team sports. 2) Rhythmic activities 3) fitness activities; 4) Lifetime recreational activities. This coeducational course addresses the application of rules and strategies, sportsmanship, and cooperative skills. It also provides opportunities for developing an understanding of physiological changes that occur as a result of physical activity and exercise. Ongoing assessment includes both written and performance-based skill evaluations.

Physical Education I

Grade 9 * 1 Semester * 1 Credit

Physical Education I emphasizes developing skills and habits for lifetime fitness activities. The goal of a physically educated student is to maintain appropriate levels of cardiorespiratory endurance, muscular strength and endurance, flexibility and body composition necessary for a healthy and productive life. The activities in this course will vary, but possible activities include but not limited to: Fitnessgram Assessment, Football, soccer, volleyball, badminton, tennis, basketball, table tennis, baseball, kickball, weight room and aquatics. This course is required to meet state graduation requirements. Adapted physical education will be offered, as needed, in the least restrictive environment.

Physical Education II

Grade 9 * 1 Semester * 1 Credit

This course provides students with the opportunity to increase their level of fitness and knowledge of fitness concepts. The goal of a physically educated student is to maintain appropriate levels of cardiorespiratory endurance, muscular strength and endurance, flexibility and body composition necessary for a healthy and productive life. The activities in this course will vary, but possible activities include but not limited to : Fitnessgram Assessment, Football, soccer, volleyball, badminton, tennis, basketball, table tennis, baseball, kickball, weight room and aquatics. This course is required to meet state graduation requirements. Adapted physical education will be offered, as needed, in the least restrictive environment. Students may apply to waive PE II credit through the PE proficiency credit option. See your counselor or PE Department chair for information about this option.

Non-Traditional Physical Education Waiver

Grade 9 * 1-2 Credits

Manchester Jr-Sr High School students are required to take two (2) semesters of physical education to graduate. Both credits may now be earned through non-traditional PE. A student can receive one (1) credit for participation in each qualifying activity. To receive a credit, a student must participate in one of the activities listed below and receive a grade of "A". Each PE credit earned through the PE waiver process must be from a different qualifying activity. Each activity can only be used once to obtain a PE credit. The maximum number of credits that can be earned through non-traditional PE is two (2), which will meet the graduation requirements.

Qualifying Activities:

- | | | |
|-------------------------|-----------------|-------------------------|
| • Baseball | • Football | • Tennis |
| • Basketball | • Golf | • Track & Field |
| • Cheerleading - Fall | • Marching Band | • Unified Flag Football |
| • Cheerleading - Winter | • Soccer | • Volleyball |
| • Color Guard | • Softball | • Winter Guard |
| • Cross Country | • Swimming | • Wrestling |

Students & parents must complete the required form, which can be found in the Guidance Office. There is a Performance Evaluation (rubric) for the activity chosen which must be completed and signed by the coach/activity supervisor. If the student does not successfully complete the requirements, by the end of their freshman year, the student will not receive the required credit for PE and will have to take PE in the traditional manner as a sophomore.

Requirements: The student must finish the season in "Good Standing". If the student becomes injured, the student is still expected to attend the activities and participate/help as needed. Credit will only be awarded if the student is working on rehabilitation with a trainer. Attendance alone does not warrant credit.

Elective PE: Weight Training

Grades 10-12 * 1-6 Semesters * 1-8 Credits

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

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

Prerequisites: Physical Education I and II

Elective PE: Lifetime Recreation & Sports

Grades 10-12 * 1-6 Semesters * 1-8 Credits

This course is for the student who wants to participate in high-level and challenging individual, partner and team sports activities and learn about organizing competitions, officiating and creating group activities. In addition to actively participating in fitness routines, skill drills and competitions, students will have the opportunity to teach, officiate and organize group activities. Students are expected to learn and demonstrate advanced skills and strategies to assist them in performing at high levels of play.

Prerequisites: Physical Education I and II

Health & Wellness Education

Grade 10 * 1 Semester * 1 Credit

In this course, students are provided with opportunities to explore the effect of health behaviors on an individual's quality of life. This course assists students in understanding that health is a lifetime commitment by analyzing individual risk factors and health decisions that promote health and prevention of disease. Students are also encouraged to assume individual responsibility for becoming competent health consumers. A variety of instructional strategies, including technology, are used to develop health literacy.

Health Education includes the major content areas in a planned, sequential, comprehensive health education curriculum as expressed in Indiana Health Education Standards Guide: 1) Growth and Development; 2) Mental and Emotional Health; 3) Community and Environmental Health; 4) Nutrition; 5) Family Life; 6) Personal Health; 7) Alcohol, Tobacco, and Other Drugs; 8) Prevention of Unintentional Injury and Violence; and 9) Health Promotion and Disease Prevention.

SCIENCE DEPARTMENT

Science 7

Grade 7 * 2 Semesters * No Credit

7th grade Science is a two semester, standards-based overview of topics in earth and physical science. Students develop a foundation for understanding scientific principles through inquiry. An emphasis is placed on laboratory skill development, critical thinking and problem solving. Science, math, and technology are connected using real world applications. Topics include: Density, scientific models, Nature of Science, Plate Tectonics, Earthquakes & Volcanoes, Rocks & Minerals, Newton's Laws of Motion, Solids, Liquids & Gases, Elements & the Periodic Table, simple machines, plant and animal cells.

STEM

Grade 8 * 1 Semester * No Credit

8th grade Science is a two semester, standards-based overview of topics in life and environmental science. Students further develop an understanding of scientific principles through inquiry, laboratory skills development, critical thinking and problem solving. Science, math, and technology are connected using real world applications.

Topics include: Nature of Science, Scientific Measurement, Water on Earth, Living Things, Cell Biology, Genetics, and Ecology.

Biology Honors

Grade 8 * 2 Semesters * 2 Credits

(By invite only)

The Honors Biology 8 class is a project-based, in depth look at a wide range of science topics, including those covered in Biology I. The class is based on the Indiana Academic Standards but goes beyond normal classroom expectations. The course uses a conceptual framework that promotes higher-order thinking , collaboration, use of technology, and encourages the transfer of knowledge from one situation to another. Students who will enjoy and excel in this class are the ones who already have basic science literacy and want to explore various topics at a more meaningful and personal level. Self-motivation and discipline are essential skills for success in this atmosphere. Selection for this class is based on an application, student achievement, and/or teacher recommendation.

Prerequisite: Recommendation by 7th grade science teacher

*** The final grade will be on the student's permanent high school transcript and will be factored into high school GPA and class rank.**

Biology I

Grade 9 * 2 Semesters * 2 Credits

Biology I provides students with a study of the structures and functions of living organisms and their interactions with their environment. The roles of organisms within populations, communities and ecosystems are studied. Through laboratory and field investigations, this study explores the processes, ecology, cell structure and function, inheritance, natural selection and evolution. This course is required for graduation.

AP Environmental Science

[BIOL 120 Environmental Science dual credit thru Ivy Tech]

Grade 11-12 * 2 Semesters * 2 Credits

AP Environmental Science is a highly interdisciplinary course that integrates the natural sciences, social sciences and humanities in a holistic study of our world. Students will be instructed in various data gathering techniques both in the field and in the laboratory. The quantification and interpretation of data will be emphasized. A minimum of one class period per week will be spent doing fieldwork or laboratory investigations. Environmental Science, Advanced Placement is a course based on content established by the College Board. Students enrolled in AP Environmental Science investigate the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. A comprehensive description of this course can be found on the College Board AP Central Course Description web page at: <http://apcentral.collegeboard.com/apc/public/courses/descriptions/index.html>

Advanced Placement (AP) Courses are intended to be equivalent to the comparable college level course. Most AP courses require instructional time equivalent to two traditional semesters, or one academic year in order to adequately address the course content and prepare students for the associated exam.

Prerequisites: Biology I, Anatomy & Physiology OR AP Biology

***Must meet Ivy Tech dual credit qualifications in order to take as dual credit**

Anatomy & Physiology

[APHY 101 & APHY 102 Anatomy & Physiology dual credit thru Ivy Tech]

Grades 10-12 * 2 Semesters * 2 Credits

Anatomy and Physiology provides students with an in-depth study and extended laboratory investigation into the internal structures and functions of the human body. Students will develop methods of scientific inquiry, problem-solving skills, and methods of research. Students will collaborate on many models, research projects and hands-on activities through the course. Anatomy and Physiology topics are designed for those who are interested in pursuing a medical or veterinary career.

Prerequisites: Biology I or Recommendation of the instructor

Integrated Chemistry-Physics

Grades 10-12 * 2 Semesters * 2 Credits

Newton's laws, motion, and energy are physics topics covered in the physics portion of this course. A study of the structure of matter and the changes in structure that occur in chemical reactions are included during the chemistry portion of this course. Activities, lectures, and demonstrations are used as tools for learning. This course is in the Tech Prep curriculum, but is also recommended for college bound students who wish to increase their scientific knowledge before taking more difficult science courses.

Chemistry I

Grades 9-12 * 2 Semesters * 2 Credits

A study of the structure of matter and the changes in structure that occur in chemical reactions are included in the first year of chemistry. A thorough knowledge of algebra is very helpful in working the problems. Laboratories, lectures, and demonstrations of chemical reactions are used as tools for learning.

Prerequisites: C or better in Biology and/or ICP, taking or passed Algebra I

Chemistry II

Grades 10-12 * 2 Semesters * 2 Credits

(Elective for all diplomas)

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

Prerequisites: Chemistry I & Algebra II

Physics I

Grades 11-12 * 2 Semesters * 2 Credits

Physics I is an introductory physics course that seeks to explore and explain the intrinsic laws and nature of the universe. Through a combination of lab activities, classroom work, and field experiences, students will gain a stronger understanding of the most fundamental sciences that govern everything around us. The course will cover topics such as velocity and acceleration, projectile motion, universal gravitation, energy and momentum, circuit analysis, and wave energy. The course is strongly recommended for anyone interested in engineering, pre-med, mathematics, chemistry/biology, or those who just want to better understand the universe we live in.

Prerequisites: Must have completed and done well in Algebra II Honors

AP Biology

[BIOL 101 Introduction to Biology dual credit thru Ivy Tech]

Grades 11-12 * 2 Semesters * 2 Credits

AP Biology is a rigorous and demanding course that is the equivalent of an introductory college biology course. The content will be covered in more depth and greater expectations will be placed on interpretation and analysis of information than in previous biology courses. In addition, statistical analysis of data and modeling of concepts will be expected. There is an emphasis on scientific thinking and analytical thinking and the class will be structured to allow time for labs and

classroom discussions. The AP Biology curriculum encompasses 4 “big Ideas,” with Essential Knowledge and Process Skills that support each one:

Big Idea 1: Evolution-the process of evolution drives the diversity and unity of life.

Big Idea 2: Cellular Processes (Energy and Communication)- Biological systems utilize free energy and molecular building blocks to grow.

Big Idea 3: Genetics and Information Transfer-living systems store, retrieve, transmit, and respond to information essential to life processes.

Big Idea 4: Interactions-Biological systems interact and these systems and their interactions possess complex properties. Summer research is required for enrollment in this class.

Prerequisite: Chemistry I (a B or above or recommendation from teacher)

***Must meet Ivy Tech dual credit qualifications in order to take as dual credit**

Sustainable Energy Alternatives

Grades 9-12 * 2 Semesters * 2 Credits

(Elective or directed elective for all diploma types)

Sustainable Energy Alternatives broadens a student's understanding of environmentally friendly energies. In this course students will use a combination of classroom, laboratory, and field experiences to analyze, critique, and design alternative energy systems. Class content and activities center on renewability and sustainability for our planet. Topics covered in this course include the following types of alternative energies: solar, wind, geothermal, biomass and emerging technologies. Leadership development, supervised agricultural experience, and career exploration opportunities in the field. Sustainable energy is also included.

***Fulfills a science credit for all diploma types.**

SOCIAL STUDIES DEPARTMENT

Social Studies 7

Grade 7 * 2 Semesters * No Credit

Students will study the regions and nations of Africa, Asia, and the Southwest Pacific, including historical, geographical, economic, political, and cultural relationships. This study includes the following regions: Africa, Southwest and Central Asia, South Asia, Southeast Asia, East Asia, and the Southwest Pacific (Australia, New Zealand, and Oceania). Students will examine key historic movements, events, and figures in these regions from early civilizations to early modern times and explore the interconnections of people, places, events, and developments. They will compare and contrast different forms of government and the rights and responsibilities of individuals in different political systems. Students will identify different climate regions, locate major physical features, countries and cities of Africa, Asia, and Southwest Pacific, and describe the influence of physical and cultural factors upon economic systems.

They will trace the influence of cultures of the past on present societies and analyze the impact of artistic, scientific, and technological innovations on the cultures of Africa, Asia and the Southwest Pacific. Students will form research questions as they use, interpret and evaluate a variety of information resources, such as maps, globes, locational technology, Geographic Information Systems, atlases, databases, and web sites. They will use literature such as legends, myths and folklore and artifacts, works of art, music, and architecture to gain an understanding of the societies of Africa, Asia, and the Southwest Pacific. They will use communication skills, charts, graphs, and other organizers to compare data and report their findings.

Social Studies 8

Grade 8 * 2 Semesters * No Credit

Students will study United States history, including a review of key ideas, events, and movements related to the discovery, exploration, and colonization of America, as well as the revolutionary and founding eras. Emphasis should be given to the principles of the Constitution of the United States and other founding-era documents and their applications to subsequent

periods of national history and to civic and political life; the constitution of Indiana; geographic and economic factors related to national development and westward expansion; and the changes brought about by the Civil War and Reconstruction period. Students will examine major themes, issues, events, developments, and figures in United States history and explore their relationship to contemporary issues and current events. They can name and locate the major physical and cultural features of the United States and use geographic skills and technology to examine the relationship of geographic and economic factors. Students will examine the influence of artistic movements, scientific developments, and changes in technology on cultural life and describe the challenges faced and contributions made to American society by social, racial, and cultural groups. Students will read and examine historical narratives to identify multiple perspectives, interests, and points of view. They evaluate a variety of information resources to distinguish fact from opinion and analyze cause-and-effect relationships. They will form research questions and seek answers by analyzing primary sources, such as autobiographies, diaries, maps, photographs, letters, government documents, and secondary sources, such as biographies and nonfiction books, articles, statistical data, geographic technology, and web sites. They will use communication skills and charts, graphs, and other organizers to compare data and report their findings.

AP Human Geography

Grade 10-12 * 2 Semesters * 2 Credits

AP Human Geography is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The AP Human Geography course is equivalent to an introductory college-level course in human geography. The course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine socio economic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications. The curriculum reflects the goals of the National Geography Standards (2012). Topics include: Geography: its Nature and Perspectives; Population and Migration; Cultural Patterns and Processes; Political Organization of Space; Agriculture, Food Production, and Rural Land Use; Industrialization and Economic Development; and Cities and Urban Land Use.

United States History

Grades 11-12 * 2 Semesters * 2 Credits

United States History builds upon concepts developed in previous studies of U.S. History. 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 mid nineteenth century through the present. Students are expected to trace and analyze chronological periods and examine the significant themes and concepts in U.S. History. They will develop historical thinking and use primary and secondary sources to explore topical issues and to understand the cause for changes in the nation over time.

AP United States History

Grades 11-12 * 2 Semesters * 2 Credits

United States History, Advanced Placement is a course based on the content established by the College Board. The course has a chronological frame from 1492 to the present and focuses on multiple causation and change in United States history over time. A variety of historical themes are examined in order to place the history of the United States into larger analytical contexts. Students are expected to analyze and interpret primary sources and develop awareness of multiple interpretations of historical issues in secondary sources. Historical events and issues in U.S. History are to be examined from multiple perspectives.

Students will be required to complete a summer project to enroll in this class.

United States Government

[POLS 101 Introduction to American Gov't & Politics dual credit thru Ivy Tech]

Grade 12 * 1 Semester * 1 Credit

This course has the following areas of study: democratic systems and institutions, the American presidency, the American legislative system, the American judicial system, and international political, economic and alliance systems. Current events are an integral part of this course. A country study research project may be required to complete this course.

United States Government dual credit is a course based on content established by the College Board. Topics include: (1) constitutional underpinnings of United States government, (2) political beliefs and behaviors, (3) political parties, interest groups, and mass media, (4) institutions of national government, (5) public policy, and (6) civil rights and civil liberties.

Economics

Grade 12 * 1 Semester * 1 Credit

This course includes a review of pertinent economic theories and laws. Units of study include: the American economic system; supply, demand and market price; launching, managing and financing a business; production; marketing; investing in the stock markets; personal finance; and the global economy. Interactive, computer based simulations are an integral part of this course. This course is required to meet state requirements for graduation.

Psychology

Grades 11-12 * 1 Semester * 1 Credit

(Directed elective or elective for all diplomas)

Psychology is a one semester elective course in the study of human behavior and mental processes. The first part of this course focuses on the history of psychology, the methods of psychology, and how the body and mind work together to influence behavior. We will also study learning, memory, thinking, and intelligence as areas of cognition. The second half of the course will focus on the developmental stages of children, adolescents, and adults. There will be a special focus on the psychological effects of bullying and other developmental challenges that impact the individual. Finally, the second half of the course will conclude with a study of personality, gender roles, and stress as it relates to psychological behavior and thoughts. The goal of the course is to relate to the world of psychology on a personal level and to help develop interests in this field.

World History & Civilization

Grades 9-12 * 2 Semesters * 2 Credits

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

Current Problems, Issues, and Events

Grades 9-12 * 1 Semester * 1 Credit

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.

Indiana Studies

Grades 9-12 * 1 Semester * 1 Credit

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

Ethnic Studies (National Studies)

Grades 9-12 * 1 Semester * 1 Credit

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

WORLD LANGUAGES DEPARTMENT

The foreign language courses at Manchester Jr-Sr High School are based on the content standards for each of the six goals stated in the Indiana Foreign Language Proficiency Guide. Goal 1: Students will exhibit a positive attitude toward language learning and different cultures. Goal 2: Students will communicate through listening and speaking in various cultural contexts within a foreign culture and within the student's own culture. Goal 3: Students will apply effective strategies in order to comprehend developmentally appropriate reading materials. Goal 4: Students will apply developmentally appropriate writing strategies for different purposes. Goal 5: Students will recognize the interrelatedness of languages, literatures, and cultures through a knowledge of the artifacts, expressions, and traditions of the foreign cultures. Goal 6: Students will demonstrate behaviors appropriate in the cultures of the languages being studied.

Spanish I

Grades 8-12 * 2 Semesters * 2 Credits

(Directed elective, elective, or World Language credit)

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

Recommendation: "C" in English

Prerequisite: Students must pass first semester with a "C-" or higher to take second semester.

Spanish II

Grades 9-12 * 2 Semesters * 2 Credits

(Directed elective, elective, or World Language credit)

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

Prerequisite: At least a "C-" grade in Spanish I semester 2. Students must pass the first semester with a "C-" or better to take the second semester.

Spanish III

Grade 10-12 * 2 Semesters * 2 Credits

(Directed elective, elective, or World Language credit)

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

This course further emphasizes making connections across content areas as well as the application of understanding Spanish language and culture outside of the classroom.

Prerequisite: Must pass Spanish II second semester with a minimum "C" grade. Students must pass the first semester with "C-" or higher to take the second semester.

Spanish IV

Grade 11-12 * 2 Semesters * 2 Credits

(Directed elective, elective, or World Language credit)

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

language and culture in the community beyond the classroom is explored through the identification and evaluation of the resources intended for native Spanish speakers.

Prerequisite: Must pass Spanish III second semester with a minimum “C” grade. Students must pass the first semester with “C-” or higher to take the second semester.

MJSHS Course Title	Teacher	Dual Credit Partner	Dual Credit Course Title	Schedule	Credits	Total Course Cost
Pre-Calculus	Sarber	PFW	MA 15300 Algebra & Trigonometry I	1st Sem	3	\$75.00
Trigonometry	Sarber	PFW	MA 15400 Algebra & Trigonometry II	2nd Sem	3	\$75
Probability & Statistics	Sarber	PFW	STATS 12500 Probability & Statistics	2nd Sem	3	\$315.30
*AP Eng. Lang. & Comp.	Snover	Trine	ENG 143 College Composition	Full Year	3	\$75
AP Environmental Science	Maish	Ivy Tech	BIOL 120 Environmental Science	Full Year	3	Free
AP Biology	Miller, G.	Ivy Tech	BIOL 101 Introduction to Biology	Full Year	3	Free
Anatomy & Physiology	Miller, G.	Ivy Tech	TBA	Full Year	TBA	Free
United States Government	Schlitt	Ivy Tech	POLS 101 Intro. to American Gov't & Politics	1 Sem. long	3	Free
AP Studio Art 2-D	Burnworth	Ivy Tech	ARTS 102 Color & Design Theory I	Full Year	3	Free
AP Studio Art 3-D	Burnworth	Ivy Tech	ARTS 103 3-D Design	Full Year	3	Free
AP Studio Art Drawing	Burnworth	Ivy Tech	ARTS 100 Life & Object Drawing I	Full Year	3	Free
*Principles of Agriculture	Mize	Ivy Tech	AGRI 100 Intro. to Agriculture	Full Year	3	Free
*Landscape Management	Mize	Ivy Tech	AGRI 164 Landscape Design I	Full Year	3	Free
*Animal Science	Mize	Ivy Tech	AGRI 103 Animal Science	Full Year	3	Free

*Food Science	Mize	Ivy Tech	AGRI 104 Food Science	Full Year	3	Free
Intro. to Engineering	Sorg	Ivy Tech	DESN 101 Intro. to Design Technology & DESN 113 2-D Computer Aided Design	Full Year	6	Free
Principles of Engineering	Sorg	Ivy Tech	DESN 104 Mechanical Graphics	Full Year	3	Free
*Princ. of Industry 4.0 & Dig. Manuf.	Sorg	Ivy Tech	SMDI 110 Intro. to Industrial Internet of Things & SMDI 111 Technology in Smart Manufacturing in Digital Integration	Full Year	6	Free
Principles of Computing	Hooks	Indiana University	CSCI 102 Computer Science (3)	Full Year	3	\$75

Courses Highlighted in Green Can Count toward AHD/THD Requirements

*no testing prerequisite in order for students to earn the dual credit