

January 28, 2019

Dear Parent(s),

This booklet contains important information concerning your child's high school education. Various topics such as graduation requirements, the different diploma types, and GPA computations are covered. Brief descriptions of courses offered at Rising Sun High School are included as well as suggested programs of study. These course descriptions can also be found on the Indiana Department of Education website:
<https://www.doe.in.gov/ccr/course-titles-and-descriptions>.

It is extremely important to a student's future that proper class choices are made every year. Hopefully, this booklet will help a student select the right courses throughout his or her high school career. Please use the four-year plan, which is in the folder, to help you plan your schedule for the coming years. I will meet with students at a later date to further discuss their schedules and four-year plans.

Students will be contacted by the School Counseling office to select courses for the next school year. If you have questions about particular courses, feel free to ask myself or Mr. Bostic for additional information.

Sincerely,

Caitlin Sauerhage
School Counselor
Rising Sun High School

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GENERAL INFORMATION

GRADUATION REQUIREMENTS:

The Indiana Department of Education adopted the Graduation Pathway diploma options beginning with the class of 2023. The Graduation Pathways diploma options seek to ensure every Hoosier student graduates from high school with 1) a broad awareness of and engagement of 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 and beyond must satisfy all three of the following Graduation Pathway requirements by completing one of the Pathway options:

Graduation Requirements	Graduation Pathway Options
<p>1) High School Diploma</p>	<p>Meet the statutorily defined diploma credit and curricular requirements.</p>
<p>2) Learn and Demonstrate Employability Skills¹ (Students must complete <u>at least one</u> of the following.)</p>	<p>Learn employability skills standards through locally developed programs. Employability skills are demonstrated by <u>one</u> the following:</p> <ul style="list-style-type: none"> • Project-Based Learning Experience; OR • Service-Based Learning Experience; OR • Work-Based Learning Experience.²
<p>3) Postsecondary-Ready Competencies³ (Students must complete <u>at least one</u> of the following.)</p>	<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 • Federally-recognized Apprenticeship; OR • Career-Technical Education Concentrator⁴: Must earn a <u>C average</u> in at least two non-duplicative advanced courses (courses beyond an introductory course) within a particular program or program of study; OR • AP/IB/Dual Credit/Cambridge International courses⁵ or CLEP Exams: Must earn a <u>C 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.

GENERAL CURRICULUM TRACK

English/Language Arts	8 credits
*Credits must include literature, composition, and speech.	
Mathematics	6 credits
***3 years of Math MUST be completed in grades 9-12 per state requirements	
2 credits: Algebra I	
2 credits: Geometry	
2 credits: Algebra II or Analytical Algebra II	
Science	6 credits
2 credits: Biology	
2 credits: Integrated Chemistry/Physics or Chemistry	
2 credits: Earth & Space Science or Science Elective	
Social Studies	6 credits
2 credits: World History or Geography	
2 credits: U.S. History	
1 credit: U.S. Government	
1 credit: Economics	
Physical Education	2 credits
Health and Wellness	1 credit
Directed Electives	5 credits
*RSHS students must take a semester of Preparing for College and Careers	
Other courses may come from areas such as Foreign Language, Fine Arts, or Career/Technical areas.	
Electives	6 credits
*The state of Indiana recommends students use these electives for a career academic sequence.	
See page eight for suggested academic areas.	

Total Required: 40 credits

COLLEGE PREP TRACK

English/Language Arts	8 credits
2 credits: English 9 or Honors English 9	
2 credits: English 10 or Honors English 10	
2 credits: Advanced Junior English Dual Credit	
2 credits: Advanced Senior English & Speech and Communications (Dual Enrollment)	

Mathematics	6 credits
2 credits: Honors Geometry	
2 credits: Honors Algebra II	
2 credits: Pre Calculus with Trigonometry	
*Four years of math is not required but recommended.	
Science	6 credits
2 credits: Biology	
2 credits: Chemistry I	
2 credits: Chemistry II or Biology II	
Social Studies	6 credits
2 credits: World History or Geography	
2 credits: U.S. History	
1 credit: U.S. Government	
1 credit: Economics	
Physical Education	2 credits
Health and Wellness	1 credit
Directed Electives	5 credits
*RSHS students must take a semester of Preparing for College and Careers	
Other courses may come from areas such as Foreign Language, Fine Arts, or Career/Technical areas.	
Electives	6 credits
*The state of Indiana recommends students use these electives for a career academic sequence.	
See page eight for suggested academic areas.	

Total Required: 40 credits

ACADEMIC HONORS

The state of Indiana awards a Core 40 with Academic Honors diploma to students who earn a Core 40 diploma and meet these additional requirements:

- Students must earn 2 additional Core 40 math credits.
- Students must take six to eight credits in a Foreign Language. They can earn six credits by taking Spanish I, II, & III. A second option is for students to take four credits in one foreign language and four credits in another foreign language.
- Students must complete two credits in the area of Fine Arts. Such classes may include Art, Band, Chorus, or another Fine Arts area.
- Only a grade of “C” or above will count towards the diploma.

- The student must have a cumulative GPA of “B” or above.
- Students must also complete **one of the following**:
 - A. Earn 4 credits in two AP courses and take their corresponding AP exams.
 - B. Earn 6 verifiable transcribed college credits in dual credit courses from priority course list.
 - C. Earn two of the following:
 1. A minimum of 3 verifiable transcribed college credits from the priority course 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 combined score of 1750 or higher on the SAT critical reading, mathematics, and writing sections and a minimum score of 530 each.
 - 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.

***The minimum number of credits required for the Core 40 with Academic Honors Diploma is 47.**

TECHNICAL HONORS:

The state of Indiana awards a Core 40 with Technical Honors diploma to students who earn a Core 40 diploma and meet the additional requirements:

- 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 lists of priority courses resulting in 6 transcribed college credits
- Only a grade of “C” or above will count towards the diploma.
- Students must have a cumulative GPA of “B” or above.
- 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.

***The minimum number of credits required for the Technical Honors Diploma is 47.**

SUGGESTED AREAS FOR THE CAREER ACADEMIC SEQUENCE:

Six credits of electives should follow a logical sequence. They may come from these areas: Fine Arts, Family and Consumer Science, Industrial Technology, Business, Spanish, Biomedical Sciences, or any program at the Southeastern Career Center.

GRADE CLASSIFICATIONS:

Students are classified into grade levels, depending on the number of credits earned each year. Following is a breakdown of the credits needed for grade classification:

Freshman:	0-7 credits
Sophomore:	8-15 credits
Junior:	16-23 credits
Senior:	24 or more credits

*Students who complete English 9 and/or Algebra I in the 8th grade can receive high school credit for the course.

***Students who take Algebra I as an 8th grader still need three additional years of math in grades 9-12 per Indiana Department of Education Requirements.**

Following are suggested yearly schedules for students to consider. One must keep in mind that none of the diploma types guarantee admission to a college or university. Colleges also look at a student's SAT/ACT scores, class rank, GPA, grades in individual classes, and involvement in school and/or community activities before granting admission.

Students who know which colleges they would like to attend well before their senior year of high school may visit the Guidance Office to learn about those colleges' admission requirements.

TYPICAL SCHEDULE FOR A NON-VOCATIONAL/NON-BAND STUDENT:

FRESHMAN	SOPHOMORE	JUNIOR	SENIOR
1. English 9	1. English 10	1. English 11	1. English 12
2. Algebra I	2. Geometry	2. Algebra II	2. Math Elective
3. Biology	3. Chem./Physics	3. Earth & Space Sci.	3. Government/ Economics
4. Geography & History	4. Physical Ed.	4. U.S. History	4. College & Career Readiness (Plus Period)
5. Health/ Preparing for College	5. Plus Period	5. Plus Period SAT/ACT Prep	5. Elective
6. Plus Period	6. Elective	6. Elective	6. Elective
7. Elective	7. Elective	7. Elective	7. Elective
8. Elective	8. Elective	8. Elective	8. Elective

TYPICAL SCHEDULE FOR A NON-VOCATIONAL/BAND STUDENT:

FRESHMAN	SOPHOMORE	JUNIOR	SENIOR
1. English 9	1. English 10	1. English 11	1. English 12
2. Algebra I	2. Geometry	2. Algebra II	2. Math Elective
3. Biology	3. Chem./Physics	3. Earth & Space Sci.	3. Government/ Economics
4. Geography & History	4. Physical Ed.	4. U.S. History	4. Band
5. Health/ Preparing for College	5. Band	5. Band	5. Plus Period
6. Band	6. Plus Period	6. Plus Period	6. Elective
7. Plus Period	7. Elective	7. Elective	7. Elective
8. Elective	8. Elective	8. Elective	8. Elective

TYPICAL SCHEDULE FOR A VOCATIONAL/NON-BAND STUDENT:

FRESHMAN	SOPHOMORE	JUNIOR	SENIOR
1. English 9	1. English 10	1. Career Center	1. Career Center
2. Algebra I	2. Geometry	2. Career Center	2. Career Center
3. Biology	3. Chem./Physics	3. Career Center	3. Career Center
4. Geography & History	4. Physical Ed.	4. Career Center	4. Career Center
5. Health/ Preparing for College	5. U.S. History	5. Earth & Space	5. Government/Economics
6. Plus Period	6. Plus Period	6. English 11	6. English 12
7. Elective	7. Elective	7. Plus Period	7. Plus Period
8. Elective	8. Elective	8. Algebra II	8. Math Elective

TYPICAL SCHEDULE FOR A VOCATIONAL/BAND STUDENT: *Students on this schedule may need to take summer school the previous summer to satisfy a core requirement.**

FRESHMAN	SOPHOMORE	JUNIOR	SENIOR
1. English 9	1. English 10	1. Career Center	1. Career Center
2. Algebra I	2. Geometry	2. Career Center	2. Career Center
3. Biology	3. Algebra II		
4. Geography & History	4. Chem./Physics	3. Career Center	3. Career Center
5. Health/ Preparing for College	5. U.S. History	4. Career Center	4. Career Center
6. Band	6. Band	5. English 11	5. English 12
7. Plus Period			
8. Physical Education	7. Government/ Economics	6. Earth & Space Sci. or Math Elective	6. Earth & Space Sci. or Math Elective
	8. Plus Period	7. Plus Period	7. Plus Period
		8. Band	8. Band

HONOR ROLL:

- “A” Honor Roll—indicates those students who received all A’s on their report cards for the nine week grading period and/or for the semester.
- “A/B” Honor Roll—indicates those students who received all A’s and B’s on their report cards for the nine week grading period and/or for the semester.
- The Honor Roll is published in the newspaper at the end of each nine week grading period.

GPA COMPUTATION:

Grade point averages for RSHS students are computed on a weighted 12.0 scale. This means that grades earned in certain courses receive more “weight” when grade point averages are computed.

WEIGHTED COURSES:

Weighted courses at RSHS include:

- Honors Geometry
- Honors Algebra II
- Pre-Calculus
- Calculus
- Principles of Biomedical Engineering
- Human Body Systems
- Principles of Engineering
- Civil Engineering
- Advanced Junior English

- Advanced Senior English
- Spanish I, II, III
- Biology II
- Physics
- Chemistry I
- Chemistry II
- All Dual Enrollment Courses Senior Year

All other courses offered are non-weighted courses.

SEMESTER GRADE POINT AVERAGE (GPA):

The semester GPA is determined at the end of each semester. Based on the table on the next page, each semester grade a student receives is assigned a quality point value. These points are added together. The sum is then divided by the number of credits that were attempted. The semester GPA is used to determine class rank.

CUMULATIVE GRADE POINT AVERAGE (GPA):

The cumulative GPA reflects all of the course work a student has attempted throughout his or her high school career. Quality points earned from ALL classes are totaled, and the total is then divided by the number of credits the student has attempted. The cumulative GPA is the GPA that colleges and scholarship committees use when considering applicants for admission.

	12.0 SCALE		4.0 SCALE	
	QUALITY POINTS EARNED FROM:		QUALITY POINTS EARNED FROM:	
SEMESTER GRADE EARNED	WEIGHTED COURSES	NON-WEIGHTED COURSES	WEIGHTED COURSES	NON-WEIGHTED COURSES
A+	15.0	12.0	5.3	4.3
A	14.0	11.0	5.0	4.0
A-	13.0	10.0	4.7	3.7
B+	12.0	9.0	4.3	3.3
B	11.0	8.0	4.0	3.0
B-	10.0	7.0	3.7	2.7
C+	9.0	6.0	3.3	2.3
C	8.0	5.0	3.0	2.0
C-	7.0	4.0	2.7	1.7
D+	6.0	3.0	2.3	1.3
D	5.0	2.0	2.0	1.0
D-	4.0	1.0	1.7	0.7
F	0.0	0.0	0.0	0.0

The 4.0 scale above is a conversion of the 12.0 scale. Many colleges and scholarship committees request that the GPA be reported on a 4.0 scale.

VALEDICTORIAN AND SALUTATORIAN:

The Valedictorian and Salutatorian of the senior class will be selected in the following manner:

- The student with the highest **CUMULATIVE** grade point average after eight semesters will be the Valedictorian.
- The student with the second highest **CUMULATIVE** grade point average after eight semesters will be the Salutatorian.
- The GPA will be calculated using the 12.0 weighted scale. Averages will be carried out to the fourth decimal point.

NATIONAL HONOR SOCIETY:

Rising Sun High School's chapter of the National Honor Society encourages and promotes scholarship, leadership, service, and character. Sophomores, juniors, and seniors with at least a "B+" average (9.0 cumulative GPA) may be considered for membership. It is the student's responsibility to indicate his or her interest in NHS by completing an application for membership. Applications are available from the sponsor. Final determination of membership is based on points and faculty recommendation after reviewing eligible students. Members are evaluated each year to maintain a continued high level of membership as required by the NHS.

HONORS Reception:

The Louise E. Cooper Honors Reception is held annually in the fall of each year to honor those students who excelled in academics from the previous school year. The following awards are presented:

High Honors Certificate	awarded for CUMULATIVE GPA of 10.6-12.0 for the previous year.
Honors Certificate	awarded for CUMULATIVE GPA of 9.0-10.59 for the previous year.
Bronze Medal	awarded for CUMULATIVE GPA of 9.0-9.9 for the previous year.
Silver Medal	awarded for CUMULATIVE GPA of 10.0-10.9 for the previous year.
Gold Medal	awarded for CUMULATIVE GPA of 11.0-12.0 for the previous year.

COURSE DESCRIPTIONS

ENGLISH

1111/1112 ENGLISH 9

(Grade 9; 2 Semesters; 2 Credits; REQUIRED)

English 9 is designed for students to enhance their knowledge in literature (short stories, novels, and poetry), writing (expository, creative), vocabulary development, and thinking & listening skills. Students practice identifying, analyzing, and composing with different structures of written language. Literature instruction focuses on opportunities to read and comprehend a broad variety of literary works. The composition component requires students to write for various audiences and purposes, while strengthening skills in paragraph and multi-paragraph writing. Oral communication (speech) emphasizes effective listening and speaking techniques. Students are required to read four novels per year.

1113/1114 HONORS ENGLISH 9

(Grade 9; 2 Semesters; 2 credits; REQUIRED-*unless taking English 9*)

This course is an advanced study of English 9 academic standards.

1121/1122 ENGLISH 10

(Grade 10; 2 Semesters; 2 Credits; REQUIRED)

This course is a continuation of English 9. Emphasis is placed on the development of language arts skills that are necessary to communicate clearly and effectively in today's world. Literature instruction focuses on opportunities to respond critically and reflectively to American literature. The composition component provides students with opportunities to write for various audiences and purposes. Students identify and employ various elements of good writing in well-organized descriptive, expository, and narrative writings. The formal study of grammar is integrated into writing. Assignments include group projects where students will be required to demonstrate group skills. Students are required to read four novels during the school year.

1123/1124 HONORS ENGLISH 10

(Grade 10; 2 Semesters; 2 credits; REQUIRED- *unless taking English 10*)

This course is an advanced study of English 10 academic standards.

1131/1132 ENGLISH 11

(Grade 11; 2 Semesters; 2 Credits; REQUIRED-*unless taking Advanced English Language Arts*)

Through the integrated study of language, literature, composition, and oral communication, English 11 students further develop their use of language as a tool for learning and thinking. Literature is usually a survey of American literature from different time periods. Composition proceeds to refine students' abilities to articulate sophisticated ideas in an organized manner. Oral communication (speech) continues to emphasize effective listening and speaking techniques. This includes providing opportunities for students to incorporate correct grammar and composition skills while learning to express ideas verbally. Students are required to read four novels during the school year.

1141/1142 ENGLISH 12

(Grade 12; 2 Semesters; 2 Credits; REQUIRED-*unless taking Advanced English Language Arts*)

Grade 12 proceeds to refine students' abilities to learn and communicate about language arts. Literature focuses on world writers and expressing viewpoints about literary works. Composition continues to provide students with opportunities to hone their writing skills and to be able to identify and support a thesis. The formal study of grammar is integrated into the study of writing. Oral communication (speech) continues to emphasize the organization of ideas, awareness of audience, and sensitivity to context in carefully researched and well-organized speeches.

1193 ADVANCED ENGLISH/LANGUAGE ARTS, COLLEGE CREDIT (ADV Junior and Senior English)

(Grades 11 and 12; 2 semesters each year; 2 Credits; REQUIRED-*unless taking English 11 or 12*)

Advanced English/Language Arts, College Credit, is an advanced course based on the *Indiana Academic Standards for English/Language Arts* in grades 11 and 12. This course title covers any English language and composition advanced course offered for credit by an accredited postsecondary institution through an adjunct agreement with a secondary school.

1191 EXPOSITORY WRITING

(Grade 11-12; 1 Credit; 1 Semester; ELECTIVE)

Expository Writing is a study and application of the various types of informational writing intended for a variety of different audiences. Using the writing process, students demonstrate a command of vocabulary, English language conventions, research and organizational skills, and awareness of the audience, the purpose for writing, and style.

1192 TECHNICAL COMMUNICATIONS

(Grade 11-12; 1 Credit; 1 Semester; ELECTIVE)

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

MATHEMATICS

3431/3432 ALGEBRA I

(Grade 9-12; 2 Semesters; 2 Credits; REQUIRED-*unless taken in the 8th grade*)

Algebra I is the basis for all advanced math courses. In particular, the instructional program in this course provides for the use of algebraic skills in a wide range of problem-solving situations. The concept of function is emphasized throughout the course. Topics include (1) operations with real numbers, (2) linear equations and inequalities, (3) relations and functions, (4) polynomials, (5) algebraic fractions, and (6) nonlinear equations. A scientific calculator is required.

3451/3452 GEOMETRY

(Grade 9-12; 2 Semesters; 2 Credits; REQUIRED-*unless taking Geometry Honors*)

Geometry examines the properties of two- and three-dimensional objects. Proof and logic as well as investigative strategies in drawing conclusions are stressed. Properties and relationships of geometric objects include the study of (1) points, lines, angles and planes, (2) polygons with a special focus on quadrilaterals and triangles, (3) circles, and (4) polyhedral and other solids.

3261/3262 GEOMETRY HONORS

(Grade 9-12; 2 Semesters; 2 Credits; REQUIRED-*unless taking Geometry*)

This course is an advanced study of Geometry.

3441/3442 ALGEBRA II

(Grade 10-12; 2 Semesters; 2 Credits; REQUIRED-*unless taking Algebra II Honors*)

Algebra II is an extension of Algebra I. Topics include (1) relations, functions, equations and inequalities, (2) conic sections, (3) polynomials, (4) algebraic fractions, (5) logarithmic and exponential functions, (6) sequences and series, and (7) counting principles and probability. Many of the exercises are from related areas in science and business. Emphasis is placed upon solving equations algebraically and graphically.

3241/3242 ALGEBRA II HONORS

(Grade 10-12; 2 Semesters; 2 Credits; REQUIRED-*unless taking Algebra II*)

This course is an advanced study of Algebra II.

3443/3444 Analytical Algebra II

(Grade 10-12; 2 Semesters; 2 credits; REQUIRED-*unless taking Algebra II or Honors Algebra II*)

Analytical Algebra II builds on previous work with linear, quadratic and exponential functions and extends to include polynomial, rational, radical, logarithmic, and other functions. Data analysis, statistics, and probability content should be included throughout the course, as students collect and use univariate

and bivariate data to create and interpret mathematical models. Additionally, Analytical Algebra II should focus on the application of mathematics in various disciplines including business, finance, science, career and technical education, and social sciences, using technology to model real-world problems with various functions, using and translating between multiple representations. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. This course is not recommended for students interested in pursuing a STEM degree at a four year institution; this course does not prepare students for Pre-Calculus/Trigonometry.

3411/3412 FINITE MATHEMATICS
(Grade 11-12; 2 Semesters; 2 Credits; ELECTIVE)

Finite Mathematics is an umbrella of mathematical topics. It is a course designed for students who will undertake higher-level mathematics in college, which may not include calculus. Topics include: (1) counting techniques, (2) matrices, (3) recursion, (4) graph theory, (5) social choice, (6) linear programming, and (7) game theory. Technology, such as computers and graphing calculators, should be used frequently.

3281/3282 PRE-CALCULUS WITH TRIGONOMETRY
(Grade 11-12; 2 Semesters; 2 Credits; ELECTIVE)

Pre-calculus with Trigonometry blends the concepts and skills that must be mastered before enrollment in a college-level calculus course. It includes the study of (1) relations and functions, (2) exponential and logarithmic functions, (3) trigonometry in triangles, (4) trigonometric functions, (5) trigonometric identities and equations, (6) polar coordinates and complex numbers, (7) sequences and series, and (8) data analysis.

3291/3292 AP CALCULUS AB, ADVANCED PLACEMENT
(Grade 12; 2 Semesters; 2 Credits; ELECTIVE)

This course provides students with the content established by the College Board. Students are encouraged to register for the AP exam and may find that their college grants them college credit equivalent to one semester of Calculus. Topics covered include (1) functions, graphs, and limits, (2) derivatives, and (3) integrals. The use of graphing technology is required.

SCIENCE

4141/4142 BIOLOGY

(Grade 9-12; 2 Semesters; 2 Credits; REQUIRED)

Biology is based on regular laboratory and field investigations that include a study of the structures and functions of living organisms and their interactions with the environment. Students explore the functions and processes of cells, tissues, organs, and systems within living organisms and the roles of organisms within populations, communities, ecosystems, and the biosphere. Students will develop knowledge of biological instruments, classification systems, genetics, and the dissection of representative organisms through lecture and laboratory studies.

4145/4146 HONORS BIOLOGY

(Grades 9-12; 2 Semesters; 2 Credits; REQUIRED-*unless taking Biology*)

Advanced study of Biology academic standards.

4143/4144 BIOLOGY II (L)

(Grade 10, 11; 2 Semesters; 2 Credits; *Counts as elective or required course for all diplomas*)

Biology II is an advanced laboratory, field, and literature investigations-based course. Students enrolled in Biology II examine in greater depth the structures, functions, and processes of living organisms. Students also analyze and describe the relationship of Earth's living organisms to each other and to the environment in which they live. In this course, students refine their scientific inquiry skills as they collaboratively and independently apply their knowledge of the unifying themes of biology to biological questions and problems related to personal and community issues in the life sciences. Indiana Department of Education High School Course Titles & Descriptions 226

4211/4212 INTEGRATED CHEMISTRY/PHYSICS

(Grade 10-12; 2 Semesters; 2 Credits; REQUIRED-*unless taking Chemistry I*)

Integrated Chemistry/Physics introduces the fundamental concepts of scientific inquiry, the structure of matter, chemical reactions, forces, motion, and the interactions between energy and matter. This course will serve students as a laboratory-based introduction to possible future course work in chemistry or physics while ensuring a mastery of the basics of each discipline. The ultimate goal of the course is to produce scientifically literate citizens capable of using their knowledge of physical science to solve real-world problems and to make personal, social, and ethical decisions that have consequences beyond the classroom walls.

4131/4132 EARTH AND SPACE SCIENCE

(Grade 11-12; 2 Semesters; 2 Credits) *REQUIRED-unless taking another Science listed below*

This course focuses on the study of the earth's lithosphere, atmosphere, hydrosphere, and its celestial environment. Students examine energy at work in forming and modifying earth materials, landforms, and continents through geological time. Students develop problem-solving skills through physical and mathematical models and methods of scientific inquiry and laboratory procedures.

4161/4162 CHEMISTRY I

(Grade 10-12; 2 Semesters; 2 Credits; *REQUIRED-unless taking Integrated Chemistry/Physics*)

Chemistry is a course based on regular laboratory investigations of matter, chemical reactions, and the role of energy in those reactions. Students compare, contrast, and synthesize useful models of matter. Students will learn the history of the development of chemistry. Other topics to be studied include atomic structure, compounds, bonding, stoichiometry, chemical reactions, and safe handling of chemicals. Methods of scientific inquiry and laboratory procedures are also studied. Students are expected to learn elements, symbols, oxidation numbers, formula writing, equation writing, and problem solving.

4167/5168 CHEMISTRY II

(Grade 11-12; 2 Semester Credits; *Counts as elective or required course 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 non-living materials. Based on the unifying themes of chemistry and the application of physical and mathematical models of the interactions of matter, students use the method of scientific inquiry to answer chemical questions and solve problems concerning personal needs and community issues related to chemistry.

4171/4172 PHYSICS

(Grade 11-12; 2 Semesters; 2 Credits; *Counts as elective or required course for all diplomas*)

Requirements: a "C" average in Chemistry I and Pre-Calculus/Trigonometry

Physics is a course in which students learn the fundamental concepts and principles related to matter and energy including mechanics, wave motion, heat, light, electricity, magnetism, atomic and subatomic physics. Students will discover the history of physics and the development of models, theories, and laws of physics. Methods of scientific inquiry and laboratory procedures are emphasized as well as problem-solving techniques. Homework time will average one hour per night. This course is offered to students via distance education.

SOCIAL STUDIES

2011/2012 GEOGRAPHY AND HISTORY OF THE WORLD

(Grade 9-12; 2 Semesters; 2 Credits; REQUIRED)

Geography and History of the World is designed to enable students to use geographical skills and historical concepts to deepen their understanding of major global themes including the origin and spread of world religions; exploration; conquest, and imperialism; urbanization; and innovations and revolutions. Geographical and historical skills include forming research questions, acquiring information by investigating a variety of primary and secondary sources, organizing information by creating graphic representations, analyzing information to determine and explain patterns and trends, and presenting and documenting findings orally and/or in writing. The historical geography concepts used to explore the global themes include change over time, origin, diffusion, physical systems, cultural landscapes, and spatial distribution and interaction.

Using these skills, concepts and the processes associated with them, students are able to analyze, evaluate, and make predictions about major global developments. This course is designed to nurture perceptive, responsible citizenship, encourage and support the development of critical thinking skills and lifelong learning, and to help prepare Indiana students for the 21st Century.

2131/2132 U.S. HISTORY

(Grade 11-12; 2 Semesters; 2 Credits; REQUIRED)

United States History builds upon concepts developed in previous studies of American history. Students in this course are expected to identify and review significant events, persons, and movements in the early development of the nation. After a brief review of U.S. History from 1492-1900, the course places a major emphasis on events of the early twentieth century to the present time. Skills in map reading and note-taking are used throughout the course. The idea gained from this class is for students to learn how to exercise their skills as citizens in a democratic society by engaging in problem-solving and civic decision-making.

2001 U.S. GOVERNMENT

(Grade 12; 1 Semester; 1 Credit; REQUIRED)

Government provides a framework for understanding the purposes, principles, and practices of democracy in the United States of America. Responsible and effective participation by citizens is stressed. Students will understand the nature of citizenship, politics, and government and be able to explain how those rights and responsibilities as citizens are part of local, state, and national government. Included within the scope of examination is federalism, the Constitution, political parties, the electoral process, voter behavior, Congress, the presidency, the federal court system, and state and local government.

2002 ECONOMICS

(Grade 12; 1 Semester; 1 Credit; REQUIRED)

This course studies how people allocate scarce resources to satisfy their wants. Students will increase their understanding of different economic systems and business organizations and their functions in production and distribution. Key elements of the course include a study of scarcity and economic reasoning, supply and demand, market structures, the role of government, national income determination, money and the role of financial institutions, economic stabilization, and trade. Students will examine the functions of government in a market economy and study market structures, including the organization and role of businesses. Students will understand the role of economic performance, money, stabilization policies, and trade of the United States.

2141 PSYCHOLOGY

(Grade 11-12; 1 Semester; 1 Credit; ELECTIVE)

This course is an introduction to the subject matter and methods of psychology, which is the scientific study of mental processes and behavior. Areas of study include scientific methods, human development, cognition, personality, assessment and mental health, and the origins of human behavior. College-prep skills are also emphasized. These include note-taking, good listening skills, and writing skills. Special emphasis is placed on test-taking techniques, such as organizing information for essay questions.

2142 SOCIOLOGY

(Grade 11-12; 1 Semester; 1 Credit; ELECTIVE)

Sociology provides opportunities for students to study human social behavior from a group perspective. Students examine society, group behavior, and social structures through scientific research methods. The influence of culture on group behavior is addressed. Students will explore the impacts of social groups and social institutions on human behavior and examine the changing nature of society. College-prep skills are also emphasized in this course.

2161 CURRENT PROBLEMS, ISSUES, AND EVENTS

(Grade 10-12; 1 Semester; 1 Credit; ELECTIVE)

Current Problems, Issues, and Events provides opportunities for students to apply techniques of investigation and inquiry 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 selected for study have contemporary historical significance and will be studied from the viewpoint of the social science disciplines.

2162 INDIANA STUDIES

(Grade 10-12; 1 Semester; 1 Credit; ELECTIVE)

This course is an integrated program comparing and contrasting state and national development 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. Students acquire motivation to participate in the political process as concerned citizens. The course also includes the study of state and national constitutions from a historical perspective and as a current foundation of government. The examination of individual leaders and their roles in a democratic society will be included. Selections from Indiana arts and literature will also be analyzed for insights into historical events and cultural expressions.

HEALTH/PHYSICAL EDUCATION

7511 PHYSICAL EDUCATION I

(Grade 10; 1 Semester; 1 Credit; REQUIRED)

Physical Education I helps students learn the skills and habits necessary for a lifetime of activity. Students gain knowledge in at least three of the following areas: (1) health-related fitness activities on endurance, flexibility, etc., (2) aerobic exercise, (3) team sports, (4) individual and dual sports, (5) gymnastics, (6) outdoor pursuits, and (7) recreational games. Ongoing assessment includes both written and performance-based tests. The President's Physical Fitness Test will be administered to each student. Students scoring in the 85th percentile will earn awards.

7532 PHYSICAL EDUCATION II

(Grade 10; 1 Semester; 1 Credit; REQUIRED)

Physical Education II provides students with opportunities to achieve and maintain a health-enhancing level of physical fitness and to increase their knowledge of fitness concepts. Students gain knowledge in three new areas. These areas may include: (1) health-related fitness activities on endurance, flexibility, etc., (2) aerobic exercise, (3) team sports, (4) individual and dual sports, (5) gymnastics, (6) outdoor pursuits, (7) and recreational games. Ongoing assessment includes both written and performance-based skill evaluations.

7522 HEALTH EDUCATION

(Grade 9; 1 Semester; 1 Credit; REQUIRED)

The primary objective of Health Education is for students to develop knowledge and skills related to personal health and well being. Students learn about human development, emotional health, environmental health, nutrition, physical injuries, disease prevention, and the effects of drugs, alcohol, and tobacco on the human body. This course helps students understand that health is a lifetime commitment.

7561/7562 ADVANCED PHYSICAL EDUCATION

(Grade 11-12; 2 Semesters; 2 Credits; ELECTIVE)

Requirements: a passing grade in Physical Education I and II

This course promotes lifetime sport and recreational activities and provides more in-depth studies in specific areas. Students will gain knowledge from areas such as health-related fitness activities, team sports, individual sports, and outdoor pursuits. Ongoing assessment includes both written and performance-based skill evaluations.

FOREIGN LANGUAGE

1511/1512 SPANISH I

(Grade 10-12; 2 Semesters; 2 Credits; ELECTIVE)

Spanish I offers basic concepts relating to the speaking and reading of the Spanish language. Students learn listening and conversational skills that will allow them to answer and ask simple questions using Spanish. Students will be able to read and understand short narrative texts, menus, and some schedules relating to air and ground transportation. This course also introduces students to a variety of cultural topics and native customs that are related to the Spanish speaking world. There is a textbook and a workbook that accompanies the text.

1521/1522 SPANISH II

(Grade 11-12; 2 Semesters; 2 Credits; ELECTIVE)

This course is a continuation of Spanish I with a detailed look at grammar and oral communication. Here, students will learn to ask questions regarding routine activities, participate in conversations, and relate a simple narrative about a personal experience. There will be an increase in the use of reading and writing skills. This includes understanding main ideas from simple texts, reading aloud with accurate pronunciation, and writing in various formats. The Hispanic people of the world will be highlighted in regard to their culture, history, and folklore. There is a textbook and a workbook that accompanies the text.

1531/1532 SPANISH III

(Grade 12; 2 Semesters; 2 Credits; ELECTIVE)

Spanish III continues the study of Spanish cultures. It emphasizes proper speaking skills, reading for comprehension, and writing accurate compositions. A part of this course will deal with vocabulary and verb tenses commonly associated with foreign travel. Students will be required to read three short Spanish mystery novels that concentrate on travel and customs related to the Hispanic world in general. Students

will discuss the novels in Spanish and answer questions from the novel following each chapter. Besides the three mystery novels, there is an advanced textbook that supplements the course. Also included with this course is a brief look at Spanish history and the correlation it has with American history.

BUSINESS

5161 DIGITAL Applications & Responsibilities

(Grade 9-12; 1 Semester; 1 Credit; REQUIRED)

Digital Citizenship prepares students to use computer technology in an effective and appropriate manner. Students develop knowledge of word processing, spreadsheets, presentations and communication software. Students establish what it means to be a good digital citizen and how to use technology.

5171/5172 INTRODUCTION TO BUSINESS

(Grade 9-12; 2 Semesters; 2 Credits; ELECTIVE)

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

INTRODUCTION TO ACCOUNTING

4524 (INTO ACC)

Introduction to Accounting 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.

- Recommended Grade Level: 10, 11
- Recommended Prerequisites: None
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for the all diplomas

FAMILY AND CONSUMER SCIENCE

6101 INTERPERSONAL RELATIONSHIPS

(Grade 9-12; 1 Semester; 1 Credit; ELECTIVE)

Interpersonal Relationships addresses the knowledge, attitudes, and behaviors all students need to participate in positive and respectful relationships in the family and with individuals at school, in the community, and in the workplace. Topics include (1) components of healthy relationships, (2) roles and responsibilities in relationships, (3) expectations of various relationships, (4) ethics in relationships, and (5) factors that impact relationships. Other topics include (1) building self-esteem and self-image through healthy relationships, (2) communications styles, (3) techniques for effective communication, leadership, and teamwork, (4) individual and group goal setting and decision making, and (5) preventing and managing stress and conflict.

6102 CONSUMER ECONOMICS

(Grade 9-12; 1 Semester; 1 Credit; ELECTIVE)

This course enables students to apply economic principles to their individual, family, and community lives. The course focuses on interrelationships among economic principles and individual and family roles of exchanger, consumer, producer, saver, investor, and citizen. Economic principles to be studied include scarcity, supply and demand, market structure, the role of government, money and the role of financial institutions, labor productivity, economic stabilization, and trade.

6103 PREPARING FOR COLLEGE AND CAREERS

(Grade 9-12; 1 Semester; 1 Credit; ELECTIVE)

Preparing for College and Careers addresses the knowledge, skills, and behaviors all students need to be prepared for success in college, career, and life. The focus of the course is in the impact of today's choices on tomorrow's possibilities. Topics to be addressed include (1) twenty-first century life and career skills (2) higher order thinking, communication, leadership, and management processes, (3) exploration of personal aptitudes, interests, values, and goals (4) examining multiple life roles and responsibilities as individuals and family members (5) planning and building employability skills (6) transferring school skills to life and work and (7) managing personal resources.

6121 NUTRITION AND WELLNESS

(Grade 10-12; 1 Semester; 1 Credit; ELECTIVE)

Nutrition and Wellness enables students to realize the lifelong benefits of good nutrition and wellness practices and empowers them to apply these principles to everyday life. Topics include (1) nutrition and wellness practices on long-term health, (2) physical, social, and psychological aspects of healthy nutrition choices, (3) selection and preparation of nutritious meals and snacks based on USDA Dietary Guidelines,

including the Food Guide Pyramid, and (4) safety, sanitation, storage, and recycling processes and issues associated with nutrition and wellness. Laboratory experiences which emphasize both nutrition and wellness practices are required components of this course

ADVANCED NUTRITION AND WELLNESS

5340 (ADV NTRN WEL)

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

- Recommended Grade Level: 10, 11, 12
- Recommended Prerequisites: Nutrition and Wellness
- Credits: 1 or 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

6122 TEXTILES AND FASHION

(Grade 10-12; 1 Semester; 1 Credit; ELECTIVE)

This class is a beginning sewing class. Students study the principles of design, care and maintenance of clothing, and basic clothing construction. Students are required to provide their own sewing fabrics for this course, and two garments are usually constructed.

6141 CHILD DEVELOPMENT AND PARENTING

(Grade 10-12; 1 Semester; 1 Credit; ELECTIVE)

This course addresses the knowledge, skills, attitudes, and behaviors associated with supporting and promoting optimal growth and development of infants and children. The focus is on research-based nurturing and parenting practices and skills that support positive development of children. Topics include (1) consideration of the roles, responsibilities and challenges of parenthood, (2) adolescent pregnancy, (3) human sexuality, (4) prenatal development, (5) preparation for birth, (6) the birth process, and (7) meeting the physical, social, emotional, intellectual, moral, cultural, and developmental needs of infants and children. Completion of a “Baby Think It Over” project is required of each student.

6145 ADVANCED CHILD DEVELOPMENT AND PARENTING

(Grade 10-12; 1 Semester; 1 Credit; ELECTIVE)

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

6142 HUMAN DEVELOPMENT AND WELLNESS

(Grade 11-12; 1 Semester; 1 Credit; ELECTIVE)

This course addresses development and wellness of individuals and families throughout the life cycle. Topics include (1) human development and wellness theories, (2) roles, responsibilities, and functions of family members throughout the life cycle, (3) individual and family wellness planning, (4) prevention and management of illnesses and diseases, (5) gerontology, (6) family crises, abuse, and violence issues, (7) physical, mental, and emotional health issues such as substance use/abuse and eating disorders, and (8) love, marriage, and healthy relationships.

6131 ADULT ROLES AND RESPONSIBILITIES

(Grade 11-12; 1 Semester; 1 Credit; ELECTIVE)

This course builds knowledge, skills, attitudes, and behaviors that students will need as they prepare to take the next steps toward adulthood. The focus is for students to become independent, contributing, and responsible participants in their families, communities, and career settings. Topics include (1) living independently and family formation, (2) analysis of personal standards, needs, aptitudes and goals, (3) integration of family, community, and career responsibilities, (4) consumer choices and decision making related to nutrition and wellness, (5) clothing, housing, and transportation, (6) financial management, and (7) relationship of technology and environmental issues to family and consumer resources.

6132 HOUSING AND INTERIORS

(Grade 11-12; 1 Semester; 1 Credit; ELECTIVE)

Housing and Interiors emphasizes a study of the exterior and interior designs of homes from the past, present, and future. Units include principles of design, interior decorating, and drawing scale rooms. Students are required to plan, design, and decorate a scale model home.

EDUCATION PROFESSIONS I

5408 (ED PROF I)

Education Professions I provides the foundation for employment in education and related careers and prepares students for study in higher education. An active learning approach that utilizes higher order thinking, communication, leadership, and management processes is recommended in order to integrate suggested topics into the study of education and related careers. The course of study includes, but is not limited to: the teaching profession, the learner and the learning process, planning instruction, learning environment, and instructional and assessment strategies. Exploratory field experiences in classroom settings and career portfolios are required components. A standards-based plan guides the students' field experiences. Students are monitored in their field experiences by the *Education Professions I* teacher. Articulation with postsecondary programs is encouraged.

- Recommended Grade Level: 11, 12
- Recommended Prerequisites: Nutrition and Wellness, Child Development, Advanced Child Development, and Interpersonal Relationships
- Credits: 2 semester course, 2 semesters required, 1-3

Education Professions II

Education Professions II prepares students for employment in education and related careers and provides the foundation for study in higher education in these career areas. An active learning approach that utilizes higher order thinking, communication, leadership, and management processes is recommended in order to integrate suggested topics into the study of education and related careers. The course of study includes, but is not limited to: the teaching profession, the learner and the learning process, planning instruction, learning environment, and instructional and assessment strategies. Extensive field experiences in one or more classroom settings, resumes, and career portfolios are required components. A standards-based plan guides the students' field experiences. Students are monitored in their field experiences by the *Education Professions II* teacher. Articulation with postsecondary programs is encouraged.

- Recommended Grade Level: 12
- Required Prerequisites: Education Professions I
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

INDUSTRIAL TECHNOLOGY

6581/6582 INTRODUCTION TO CONSTRUCTION

(Grade 10-12; 2 Semesters; 2 Credits; ELECTIVE)

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 learn how architectural ideas are converted into projects and how projects are managed during a construction project in this course.

6591/6592 INTRODUCTION TO TRANSPORTATION

(Grade 9-12; 2 Semesters; 2 Credits; ELECTIVE)

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

6631/6614 INTRODUCTION TO DESIGN PROCESSES

(Grade 9-12; 2 Semesters; 2 Credits; ELECTIVE)

Introduction to Design Processes is a course that specializes in modern design and engineering processes with a focus on creative problem solving in developing, testing, communicating, and presenting post-evaluation of products. Students use the design process to analyze research, develop ideas, and produce products solutions. This process gives a framework through which they design, manufacture tests present their ideas. Students will demonstrate and utilize design principles and elements for visual presentation. Designing aspects will also cover aesthetics, ergonomics, the environment, safety, and production. The design process is a core-learning tool for many courses enabling the student to solve problems in a systematic, logical and creative manner. Students develop a good understanding of the way the process helps them think creatively and developing aesthetic ideas. The design process encourages the students to engage in higher level thinking to create solutions for many types of problems.

PROJECT LEAD THE WAY

6621/6622 PRINCIPLES OF ENGINEERING (POE)

(Grade 10-12; 2 Semesters; 2 Credits; ELECTIVE)

Prerequisite: Completed 2 semesters of Introduction to Engineering Design.

This survey course of engineering exposes students to major concepts they'll encounter in a postsecondary engineering course of study. Students employ engineering and scientific concepts in the solution of engineering design problems. They develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges, documenting their work and communicating solutions to peers and members of the professional community.

6641/6642 CIVIL ENGINEERING AND ARCHITECTURE (CEA)

(Grade 10-12; 2 Semesters; 2 Credits; ELECTIVE)

Students apply what they learn about various aspects of civil engineering and architecture to the design and development of a property. Working in teams, students explore hands-on activities and projects to learn the characteristics of civil engineering and architecture. In addition, students use 3D design software to help them design solutions to solve major course projects. Students learn about documenting their project, solving problems and communicating their solutions to their peers and members of the professional community of civil engineering and architecture.

4501/4502 PLTW PRINCIPLES OF BIOMEDICAL SCIENCES

(Grades 9-12; 2 Semester Course, 2 Credits; Counts as core science class or ELECTIVE)

****Must have already taken Biology or can take Biology concurrently.*

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

4511/45121 PLTW HUMAN BODY SYSTEMS

(Grades 10-12; 2 Semester Course, 2 Credits; Counts as core science class or ELECTIVE)
5216 (HUMAN SYST)

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

4513/4514 PLTW MEDICAL INTERVENTIONS

(Grades 11-12; 2 Semester Course, 2 Credits; Counts as a core science class or ELECTIVE)

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

ART

7411 INTRODUCTION TO TWO-DIMENSIONAL ART

(Grade 10-12; 1 Semester; 1 Credit; ELECTIVE)

Offered in conjunction with Introduction to Three-dimensional Art

Drawing assignments emphasize two-dimensional and naturalistic drawing from direct observation. Students encounter design elements (line, shape, space value, texture), the human figure, and linear perspective. Contour, gesture, and shading techniques are stressed. Sketchbook drawings are assigned as homework. Students use poster paints and acrylics to learn principles of color mixing, color theory and harmony, and to explore basic techniques of representational painting.

7412 INTRODUCTION TO THREE-DIMENSIONAL ART

(Grade 10-12; 1 Semester; 1 Credit; ELECTIVE)

Offered in conjunction with Introduction to Two-dimensional Art

Three-dimensional projects emphasize form, space, and surface quality. Sculpture projects created from papier-mâché and other materials introduce additive, subtractive, modeling, and casting techniques. Ceramics assignments introduce the process of forming, glazing, and firing clay. Students produce clay objects that demonstrate three basic construction methods of hand-built pottery.

7421 ADVANCED TWO-DIMENSIONAL ART

(Grade 11-12; 1 Semester; 1 Credit; ELECTIVE)

Offered in conjunction with Advanced Three-dimensional Art

This course builds on the learning experiences of Introduction to Two-dimensional Art. Students use acrylic paint to study optical effects of color contrast, the illusion of space, and the emotional effects of color, while improving their painting skills. The nature of this course allows a student, with teacher approval, to earn additional credit by taking Advanced Two-dimensional Art II. These students will refine their painting skills while developing solutions to various technical and aesthetic problems. They are also encouraged to pursue individualized study in computer graphics or traditional media during their third year.

7422 ADVANCED THREE-DIMENSIONAL ART

(Grade 11-12; 1 Semester; 1 Credit, ELECTIVE)

Offered in conjunction with Advanced Two-dimensional Art

This course builds on the learning experiences of Introduction to Three-dimensional Art. Here students complete individualized projects in plaster and clay. Some projects include (1) building a clay sculpture that is at least 12 inches or larger, (2) constructing a functional, ceramic container with a fitted lid, and (3) completing a final clay project of the student's choice. Students spend the second half of the semester studying papier-mâché techniques and incorporating techniques and processes they have learned from previous courses. Students who would like an additional year of art instruction may take Advanced Three-dimensional Art II. At this time, students explore more demanding modeling, casting, and carving techniques. They practice throwing on the potter's wheel and are required to sculpt a life-size human head.

MUSIC

7213/7214 BEGINNING CONCERT BAND

(Grade 9-12; 2 Semesters; 2 Credits; ELECTIVE)

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. Instruction is designed to enable students to connect, examine, imagine, define, try, extend, refine, and integrate music study into other subject areas. Ensemble and solo activities are designed to develop 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, conducting, playing by ear, and sight-reading. Students are given opportunities to develop the ability to understand and convey the composer's intent in order to connect the performer with the audience.

Students also have the opportunity to experience live performances by professionals during and outside of the school day. Time outside of the school day may be scheduled for dress 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.

7215/7216 INTERMEDIATE CONCERT BAND

(Grade 10-12; 2 Semesters; 2 Credits; ELECTIVE)

Prerequisite: Beginning Concert Band and recommendation of instrumental instructor

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. Instruction is designed so that students are enabled to connect, examine, imagine, define, try, extend, refine, and integrate music study into other subject areas. Ensemble and solo activities are designed to develop 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, conducting, playing by ear, and sight-reading. Students develop the ability to understand and convey the composer's intent in order to connect the performer with the audience. Students also have opportunities to experience live performances by professionals during and outside of the school day. Time outside of the school day may be scheduled for dress 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.

In addition, students perform, with expression and technical accuracy, a large and varied repertoire of concert band literature that is developmentally appropriate. Evaluation of music and music performances is included.

7211/7212 ADVANCED CONCERT BAND
(Grade 11-12; 2 Semesters; 2 Credits; ELECTIVE)

Prerequisites: Beginning Concert Band and Intermediate Concert Band and recommendation of instrumental instructor

Advanced Concert Band provides students with a balanced comprehensive study of music through the concert band, which develops skills in the psychomotor, cognitive, and affective domains. Instruction is designed so that students are enabled to connect, examine, imagine, define, try, extend, refine, and integrate music study into other subject areas. Ensemble and solo activities are designed to develop 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, conducting, playing by ear, and sight-reading. Students develop the ability to understand and convey the composer's intent in order to connect the performer with the audience. Students also have the opportunity to experience live performances by professionals during and outside of the school day. Time outside of the school day may be scheduled for dress 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.

Band repertoire must be of the highest caliber. Mastery of advanced wind band technique must be evident. Areas of refinement consist of advanced techniques including, but not limited to: (1) intonation, (2) balance and blend, (3) breathing, (4) tone production, (5) tone quality, (6) technique, (7) rhythm, (8) sight-reading, and (9) critical listening skills. Evaluation of music and music performances is included.

7221 DANCE PERFORMANCE
(Grade 9-12; 1 Semester; 1 Credit; ELECTIVE)

Requirements: an audition to determine dancing abilities

Students enrolled in this course comprise the flag corps unit of the marching band. Dance Performance is open to band and non-band members. Any band member who quits band must wait one year before being allowed to audition for this unit. Flags, poles, and uniforms are provided to students. Members of the flag corps must purchase their own shoes and undergarments. Flag corps members are required to participate in all rehearsals and performances with the marching band. Students may repeat this class to earn additional class credit.

7441/7442 BEGINNING CHORUS

(Grade 9-12; 2 Semesters; 2 Credits; ELECTIVE)

Students taking Beginning Chorus develop musicianship and specific performance skills through ensemble and solo singing. The chorus may be composed of: (1) male chorus, (2) female chorus, (3) mixed chorus, or any combination thereof. Activities in this class create the development of quality repertoire in the diverse styles of choral literature appropriate in difficulty and range for the students. Instruction is designed so that students are enabled to connect, examine, imagine, define, try, extend, refine, and integrate music study into other subject areas. Chorus classes provide 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. Students have the opportunity to experience live performances by professionals during and outside of the school day. A limited amount of time, outside of the school day, may be scheduled for dress rehearsals and performances. A limited number of public performances may serve as a culmination of daily rehearsal and music goals. Students must participate in performance opportunities, outside of the school day, that support and extend the learning in the classroom.

7443/7444 INTERMEDIATE CHORUS

(Grade 10-12; 2 Semesters; 2 Credits; ELECTIVE)

Prerequisite: Beginning Chorus and recommendation of vocal music instructor

Intermediate Chorus provides students with opportunities to develop musicianship and specific performance skills through ensemble and solo singing. The chorus may be composed of: (1) male chorus, (2) female chorus, (3) mixed chorus, or any combination thereof. Activities create the development of quality repertoire in the diverse styles of choral literature that is appropriate in difficulty and range for the students. Instruction is designed to enable students to connect, examine, imagine, define, try, extend, refine, and integrate music study into other subject areas. Chorus classes provide 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. Students also have the opportunity to experience live performances by professionals during and outside of the school day. A limited amount of time, outside of the school day, may be scheduled for dress rehearsals and performances. A limited number of public performances may serve as a culmination of daily rehearsal and music goals. Students must participate in performance opportunities, outside of the school day, that support and extend the learning in the classroom. Choral repertoire should be developmentally appropriate. Additional emphasis is placed on sight-reading, critical listening skills, and vocal technique.

7445/7446 ADVANCED CHORUS
(Grade 11-12; 2 Semesters; 2 Credits; ELECTIVE)

Prerequisites: Beginning Chorus and Intermediate Chorus and recommendation of vocal music instructor

Students taking Advanced Chorus develop musicianship and specific performance skills through ensemble and solo singing. The chorus may be composed of: (1) male chorus, (2) female chorus, (3) mixed chorus or any combination thereof. Activities create the development of a quality repertoire in the diverse styles of choral literature appropriate in difficulty and range for the students. Instruction is designed to enable students to connect, examine, imagine, define, try, extend, refine, and integrate music study into other subject areas. Chorus classes provide 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. Students have the opportunity to experience live performances by professionals during and outside of the school day. A limited amount of time, outside of the school day, may be scheduled for dress rehearsals and performances. A limited number of public performances may serve as a culmination of daily rehearsal and music goals. Students must participate in performance opportunities, outside of the school day, that support and extend the learning in the classroom. 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.

SPECIAL EDUCATION

All special education classes are titled "PVE," which means "pre-vocational." These classes are designed for students who have been tested and placed in a special education program. All classes consist of small group and individual units, geared to meet the needs of a variety of abilities. Students work at their own speed and level. The main emphasis of these classes is to adjust teaching styles for those students who have learning disabilities. A requirement for enrollment in the PVE classes is placement in the special education program. All special education students are mainstreamed in Health Education and Physical Education. A student with a physical handicap may require an adaptive physical education class.

The current list of pre-vocational classes include:

- 0101/0123 PVE English 9
- 0121/0122 PVE English 10
- 0131/0132 PVE English 11
- 0141/0142 PVE English 12
- 0367/0368 PVE Algebra I
- 0369/0370 PVE Geometry
- 0371/0372 PVE Algebra II

- 0391/0392 PVE Finite Math
- 0455/0456 PVE Earth and Space Science
- 0457/0458 PVE Biology
- 0461/0462 PVE Integrated Chemistry & Physics
- 0501/0502 PVE U.S. History
- 0503/0504 PVE World History
- 0701/0702 PVE Government/Economics
- 0711/0712 PVE Geography & History of the World
- 0171/0172 Functional Academics
- 0611/0612 PVE Daily Living Skills
- 0801/0802 Job Training

SOUTHEASTERN CAREER CENTER

The Southeastern Career Center is located in Versailles, Indiana. A variety of one- and two-year programs in vocational or technical education are offered. These programs help students prepare for the workforce or for post-secondary education after high school. Twelve area high schools, including Rising Sun, send students to SCC.

Juniors and seniors are allowed to attend SCC. Students leave the high school daily at 8:05am and travel by bus to Versailles. ALL students, with the exception of those in the cosmetology program, are required to ride the bus. Students return to the high school at 11:55am. Students remain at RSHS for the remainder of the day, taking the additional classes required for graduation.

Tuition is free to attend SCC. Fees for books and supplies may be required, but they are similar to book fees required at the high school. For some programs, college credit may be available. Students who complete a two-year program in any one area will be awarded a certificate of completion from the Career Center. Any interested student may be considered for vocational school. Credits earned at SCC will be counted towards electives. Students who are pursuing the Academic Honors Diploma may also attend SCC.

The following pages contain course descriptions for programs at the Southeastern Career Center.

MANUFACTURING AND PROCESSING

9331/9332 (first year)

9341/9342 (second year) COMPUTER-AIDED DRAFTING

(Grade 11-12; 2 Semesters; 12 Credits; ELECTIVE)

In the **Computer Aided Drafting** class, students will learn both basic, manual drafting on the board, and computer aided drafting. Experience will be gained in the latest 2D and 3D computer design tools. Students will get to use the latest version of Autodesk and many of its sub-programs such as AutoCAD Inventor, Revit, Landscape, and others. AutoCAD continues to be the professional choice for Engineering and Architecture. Game Design students learn Rhino, 3DS Max, NURBS modeling, Bongo, and Maya 3D animation programs-used on movies such as Spiderman and Ice Age, and even in commercials-like the Geico Gecko. Other programs may include Microsoft Office (including Windows Movie Maker). Dual college credits are available.

9351/9352 (first year)

9361/9362 (second year) PRECISION MACHINE TECHNOLOGY

(Grade 11-12; 4 Semesters; 12 Credits; ELECTIVE)

Precision Machine Technology-The machining industry is one of the best paying industries in the U.S. today with a high demand for skilled workers in many fields, like aerospace and automotive. As a machinist, the student will learn how to interpret blueprints and use machine tools to shape metal to precise dimensions. The student will apply knowledge of machine operations, metal properties, layout, precision measurement tools, and machining procedures to create machined parts. Students will become familiar with operations on lathes, grinders, and milling machines. They will learn elements of design, process layout, and CAD systems. They will also learn to program CNC machines both manually and by using MasterCam Software. Dual credits are available. Many machinists use their education and time in industry to transition their careers into management, engineering, sales, business start-ups, and other technical avenues of higher opportunity.

9371/9372 (first year)

9381/9382 (second year) WELDING TECHNOLOGY

(Grade 11-12; 4 Semesters; 12 Credits; ELECTIVE)

Welders can work indoors, outdoors, and even under water. In this two-year **Welding** program, students will learn about various types of welds such as MIG, TIG, and Stick and how to perform each of them. They will also learn the properties of metals, multiple welding symbols, and all about safety. Students are provided with the skills and preparation to become AWS (American Welding Society) certified through classroom and laboratory learning. Multiple dual college credits are available.

HEALTH SERVICES

9451/9452 (first year)

9461/9462 (second year) HEALTH CAREERS

(Grade 11-12; 2 Semesters; 12 Credits; ELECTIVE)

Health Careers-Course content for this two-year program includes anatomy and physiology, medical terminology, CNA, CPR and First Aid Certification, health maintenance, disease prevention, and health career exploration. Students spend the 2nd semester of the 2nd year interning at various medical facilities which provides opportunities for job placement and post-secondary education. Dual college credits are available in this program.

** A one-year intensive program is open to seniors.*

9931/9932 (first year)

9941/9942 (second year) DENTAL ASSISTING

(Grade 11-12; 2 Semesters: 6 Credits; ELECTIVE)

Students who enroll in the two-year **Dental Careers** course will be introduced to the various roles that are available in the dental field. Course content includes dental anatomy, dental charting, oral hygiene, and identification & utilization of dental instruments. Students also learn various laboratory skills during the program. The second year of the program offers an internship in the course of the second semester, which allows students the opportunity for real-life experience. Dual college credits are available.

BUILDING AND CONSTRUCTION

9211/9212 (first year)

9221/9222 (second year) BUILDING TRADES

(Grade 11-12; 4 Semesters; 12 Credits; ELECTIVE)

Building Trades students learn construction skills through a residential and light commercial building approach. First-year students work on models contained within their shop and minor building projects. Second-year students take on large-scale, real-life building projects (homes, garages, pole barns, light commercial, remodels, etc.). Specific techniques learned include framing, roofing, exterior finish, interior

finish, plumbing, concrete, and masonry skills. Dual college credits are available, and apprenticeship opportunities are available to graduates upon completion of the program.

9241/9242 (first year)

9251/9252 (second year) ELECTRICAL TRADES

(Grade 11-12; 4 Semesters; 12 Credits; ELECTIVE)

Skills taught in the two-year **Electrical Trades** program include residential wiring, industrial and commercial maintenance, electrical troubleshooting, blueprint reading, AC/DC theory, and PLCs. Wiring of the SCC Building Trades projects, electrical maintenance of SCC, and a large, hands-on lab provide our students with real-life experience. Students in the Electrical Trades curriculum will have the opportunity to complete level one of the classroom portion of the NCCER Electric Trades Apprenticeship program, OSHA 10-Hour Certification, and the opportunity to participate in SkillsUSA. Dual credits are available in this class.

9771/9772 HEAVY EQUIPMENT

(Grade 11-12; 2 Semesters; 6 Credits; ELECTIVE)

The **Heavy Equipment** program is designed to introduce students to all aspects in the major classifications of earth moving. Students will receive training in the operation of backhoes, excavators, bobcats, dump trucks, and forklifts. We are also currently seeking new and updated equipment to further student exposure (loader, dozer, mini-excavator). Students will also be introduced to pipe laying, job estimating and bidding, blue print reading, preventative maintenance (fuel/lubricants), and grade operations. Equipment operations are taught from on-the-job references, along with book training through NCCER (National Center for Construction Education & Research). We work to provide on-the-job experience whenever possible. Program completers can expect to find employment in entry level highway construction along with the opportunity to seek employment in the Operating Engineers (union) Local 181. Students are also prepared to test for their CDLs, for forklift certification, and for OSHA 10-Hour Certification. This is a one-year program with students being encouraged to begin with a year of study in Diesel or Building Trades. A valid driver's license is required.

PROTECTIVE SERVICES

9751/9752 LAW ENFORCEMENT

(Grade 11-12; 2 Semesters; 6 Credits; ELECTIVE)

Law Enforcement is a one-year program that introduces students to procedures in the legal field such as arrest techniques, self defense, search and seizure, crime scene evaluation, weapon identification, weapon safety, marksmanship, and situational shooting (we now have a weapon simulator). Class time is spent learning about the law, the Bill of Rights and the Constitution, serial killers, and drugs and their effect on

the body. PT (physical training) is also a part of this class. Graduates pursue careers in criminal justice, law enforcement, conservation studies, and other protective services. Dual credits are available.

9881/9882 EMERGENCY SERVICES

(Grade 11-12; 2 Semester; 6 Credits; ELECTIVE)

Emergency Services offers students the opportunity to explore the areas of fire service and emergency medicine. Students experience hands-on training with firefighting, emergency medical services, and tactical rescue operations. This one-year program utilizes the entire school building and grounds, the Versailles Fire Station, and the Versailles Fire Department Training Tower as an extended classroom. Students are provided the opportunity to test for certification in several different areas, including, but not limited to: Hazardous Materials Awareness and Operations levels, NIMS (National Incident Management System), Indiana State Mandatory Firefighter, NFPA Firefighter I & II, DOT Emergency Medical First Responder, and CPR. Dual credits are available.

INFORMATION TECHNOLOGY ACADEMY

9611/9612 COMPUTER REPAIR

(Grade 11-12; 2 Semesters; 6 Credits; ELECTIVE)

A+ **Computer Repair** allows students to dive inside the personal computer. From repairing hardware to troubleshooting operating systems, the course covers a wide variety of technology topics. Upon completion of the course, students will have covered all of the objectives required for the CompTIA A+ Certification Exam. This certification is a standard for IT workers across the globe. Computer Repair is a pre-requisite for Computer Networking. Dual credits are available.

9621/9622 COMPUTER NETWORKING

(Grade 11-12; 2 Semesters; 6 Credits; ELECTIVE)

Computer Networking students get direct experience working with today's networking technology. From home and small business wireless networks to large, enterprise- scale routers, students will get direct experience using a wide variety of hardware down to the bare wire. The course also includes exercises in installing, maintaining, and administering servers. Upon completion of the course, students will have covered all the objectives required for the CompTIA Network+ Certification exam. This certification is a standard for network technicians across the globe. Dual credits are available.

9311/9312 DIGITAL MEDIA

(Grade 11-12; 2 Semesters; 6 Credits; ELECTIVE)

Adobe Creative Suite 4 Production Premier, Design Premium, and Microsoft Office software products provide the Digital Media students with web authoring, multimedia and graphics animation, and digital video technologies. Students use these software packages to create enhanced websites, interactive media, and digital video projects for a wide variety of technical activities. IC³ Certification and dual credits are also available in the two-year curriculum. With additional schooling, program completers could expect to find employment as: Animators, Artists, Cartoonists, Creative Consultants, Digital Media Specialists, Graphic Designers, Interior Designers, Multimedia Consultants, Photographers, Visual Arts Consultants, and Web Designers

MECHANICAL REPAIR AND CRAFTS

9111/9112 (first year)

9121/9122(second year) AUTO COLLISION REPAIR

(Grade 11-12; 4 Semesters; 12 Credits; ELECTIVE)

The two-year **Automotive Collision Repair** program will teach the tools and equipment used in today's collision repair industry. Introductory welding skills and repair and replacement of fenders, hoods, and quarter panels are taught in the beginning stages of this popular program. Techniques in customized painting, overall and spot painting, and clear-coat training as well as job application skills make this an exciting program for all students. Dual credits are available.

9131/9132 (first year)

9141/9142 (second year) AUTO SERVICE TECHNOLOGY

(Grade 11-12; 4 Semesters; 12 Credits; ELECTIVE)

Prerequisite of a "C" or better in Algebra I

Students in the two-year **Automotive Technology** program will develop the basic knowledge and skills in all 8 of the ASE (Automotive Service Excellence) testing areas. These areas of study include: engine repair, electrical & electronics, automatic transmission (general services), brakes & braking systems, steering & suspension systems, manual drivetrains (general svcs.), heating & A/C (general svcs.), and engine performance. Together these encompass the new ASE Student Certification that can be achieved upon successful completion of the course and the passing of the Maintenance and Light Repair certification test. Our instructors are ASE certified and teach the industry's latest technology with some of the latest equipment. Strong math skills are highly recommended and necessary to succeed. The program is NATEF (National Automotive Technicians Education Foundation) certified and follows their rigorous curriculum to offer students the best in automotive instruction. Dual credits are available.

9151/9152 (first year)

9161/9162 (second year) DIESEL TECHNOLOGY

(Grade 11-12; 4 Semesters; 12 Credits; ELECTIVE)

Diesel Service Technology students train on 18-wheelers, buses, construction and implement equipment, and Cummins engines. Students receive hands-on experience in every aspect of training from ASE certified instructors with industry standard vehicles and tools. Specifically, curriculum includes instruction in diesel engines and repair, pneumatic/hydraulic truck brakes, electronics, suspension and steering, fuel systems, electronic diagnosis, drivetrain, preventative maintenance, and inspection. Diesel is a two-year program with dual college credits available.

9951/9952 MOTORCYCLE/MARINE REPAIR TECHNOLOGY

(Grade 11-12; 2 Semesters; 6 Credits; ELECTIVE)

Motorcycle & Marine Repair is a one-year course that introduces students to the role of a motorcycle and marine repair service technician. Students receive hands-on experience in multiple areas of training pertaining to motorcycles, ATVs, and watercraft. Students learn about preventative maintenance, engine repair, electrical diagnostics, brakes, carburetion and fuel injection diagnostics, styles, designs, accessories, and much more.

PERSONAL AND COMMERCIAL SERVICES

9511/9512 (first year)

9521/9522 (second year) COSMETOLOGY

(Grade 11-12; 4 Semesters; 16 Credits; ELECTIVE)

Students attending the popular two-year **Cosmetology** program learn the skills needed to perform services on the hair, skin, and nails. Upon completion of the program, students will be eligible to take the Indiana State Board Exam and be licensed to perform haircuts, hair color, chemical texture services, and spa services (such as facial and scalp massages, waxing, manicures, and pedicures). Students begin their training on mannequins (with real human hair). During their senior year, students will work in the Career Center's Salon & Spa on real clients. Cosmetology students must complete 1500 hours to graduate, and they must provide their own transportation. Dual college credits are available.

9411/9412 (first year)

9421/9422 (second year) CULINARY ARTS

(Grade 11-12; 4 Semesters; 12 Credits; ELECTIVE)

Culinary Arts students work in a commercial kitchen with professional equipment. Lessons focus on cooking and baking techniques, knife skills, cake decorating, catering, sanitation, nutrition, and more. This two-year program emphasizes careers in the culinary industry from chef training to restaurant management. Dual credits are available.

PROJECT LEAD THE WAY

AEROSPACE ENGINEERING

(Grade 11-12; 2 Semesters; 2 Credits; ELECTIVE)

Aerospace Engineering engages students in engineering design problems related to aerospace information systems, astronautics, rocketry, propulsion, the physics of space science, space life sciences, the biology of space science, principles of aeronautics, structures and materials, and systems engineering. Using 3-D design software, students work in teams utilizing hands-on activities, projects and problems and are exposed to various situations encountered by aerospace engineers.

BIOTECHNICAL ENGINEERING

(Grade 11-12; 2 Semesters; 2 Credits; ELECTIVE)

The major focus of this course is to expose students to the diverse fields of biotechnology including biomedical engineering, molecular genetics, bioprocess engineering, and agricultural and environmental engineering. Lessons engage students in engineering design problems related to biomechanics, cardiovascular engineering, genetic engineering, agricultural biotechnology, tissue engineering, biomedical devices, forensics and bioethics. Students apply biological and engineering concepts to design materials and processes that directly measure, repair, improve and extend living systems.

COMPUTER INTEGRATED MANUFACTURING (CIM)

(Grade 11-12; 2 Semesters; 2 Credits; ELECTIVE)

Students answer the questions: How are things made? What processes go into creating products? Is the process for making a water bottle the same as it is for a musical instrument? How do assembly lines work? How has automation changed the face of manufacturing? As students find the answers to these questions, they learn about the history of manufacturing, a sampling of manufacturing processes, robotics and automation. The course is built around several key concepts: computer modeling, Computer Numeric

Control (CNC) equipment, Computer Aided Manufacturing (CAM) software, robotics and flexible manufacturing systems.

ENGINEERING DESIGN and DEVELOPMENT (EDD)

(Grade 11-12; 2 Semesters; 2 Credits; ELECTIVE)

This is an engineering research course in which students will 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 and help the team to reach a solution to the problem. The team presents and defends their solution to a panel of outside reviewers at the conclusion of the course. The EDD course allows students to apply all the skills and knowledge learned in previous Project Lead The Way courses. The use of 3D design software helps students design solutions to the problem their team has chosen. This course also engages students in time management and teamwork skills, a valuable set for students in the future.

PRE-VOCATIONAL EDUCATION

9871/9872 FACILITY MAINTENANCE

The Southeastern Career Center offers a pre-vocational (PVE) program that provides opportunities for students in special education to acquire marketable work habits. This program is flexible for students, allowing them to progress at their ability levels. Students are mainstreamed during the shop or lab portion of the program. Approximately two-thirds of class time is spent in shop or lab. The remaining time is spent in related instruction. To be eligible for the PVE program, students must be receiving special education services from RSHS, be referred by the guidance counselor and the special education department, and be recommended by a person at the Ripley-Ohio-Dearborn Special Education Cooperative.

NON-CREDIT COURSES

9991/9992 STUDY HALL

(Grade 9-12; 1 or 2 Semesters; NO CREDIT)

Students may take a study hall any time in grades 9-12; however, students do not receive credit for this class. The course is designed to let students do homework, study for tests, and visit the library. Students are only allowed to take one study hall per semester during the school year.

