

# 2021 / 2022 Course Descriptions

## *Introduction*

This booklet contains information intended to guide students and parents through the process of planning and updating their high school curriculum.

The first section contains course descriptions for all of the courses we offer at South Spencer High School. Each description identifies the course title, what grade level a student must be at to take the course, and the prerequisites or classes which must be taken before taking the course. In the description the course content is described as well as information about the length of the course and the credits possible. Some courses are listed as being **one-semester**, and others as **year-long**.

The second section contains information about Career Clusters. Along with the explanation of the clusters are examples of curriculums students should follow to be prepared for either entrance into a post-secondary program or going directly into the workforce. These are only examples and should be used as such.

The third section contains Graduation requirements, Core40, Core 40 with Academic Honors, and Core 40 with Technical Honors curriculums, and policy concerning ISTEP and academic honors (Valedictorian, Salutatorian, Academic Top 10%). The end of the booklet contains several pages for you to use in planning. The actual forms that must be completed and returned are separate from this document.

***\*Courses offered during the 2021/22 year highlighted in Yellow***

***\*AP / College Credit / Weighted Grade classes are marked with Red***

***One-semester classes are marked in Blue***

***Year-long classes are marked in Green***

## ***Agriculture***

***Not all of our Agriculture courses will be offered each school year.*** This allows our students to experience as many Agriculture courses as they would like during their four years of high school. Students must use the following information to request classes, and complete their 4-Year Plan:

**2021/22 Agriculture Structure and Technology, Animal Science, Career Intern**

**5088 Agriculture Power****Grades 9-12****Prerequisite: None**

Ag Power is a year-long, two-credit, lab intensive course in which students develop an understanding of basic principles of selection, operation, maintenance and management of agricultural equipment in concert while incorporating technology. Topics covered include: safety, welding and metal technology (arc, MIG, TIG, and oxy-acetylene welding, plasma cutting) , engines (small gas and diesel engines), and career opportunities in the area of agriculture power.

**5088II Agriculture Power II****Grades 10-12****Prerequisite: Agriculture Power**

Ag Power II is a year-long, two-credit, lab intensive course that is a continuation of Agriculture Power focusing on larger machine mechanics (i.e. - automotive, farm machinery, etc.).

**5088III Agriculture Structure and Technology****Grades 10-12****Prerequisite: None**

Ag Structure is a year-long, two-credit , lab intensive course in which students develop an understanding of basic principles of selection, operation, maintenance and management of agricultural equipment in concert while incorporating technology. Topics covered include: safety, electricity, plumbing, concrete, carpentry, leadership development, and career opportunities in the area of agriculture structure and technology. \*This course may be taken twice for a maximum of 4 credits.

**5008 Animal Science****Grades 9-12****Prerequisite: None**

Animal Science is a year-long, two-credit course. Animals included are cattle, sheep, swine, horses, small animals (dogs, cats, etc.) and alternative animals (bees, ostrich, earthworms, etc.). Areas of study may include: anatomy and physiology, genetics, reproduction, nutrition, aquaculture, careers, diseases and parasites, social and political issues related to the industry, and management practices for the care and maintenance of animals.

\* Fulfills a Life Science or Physical Science requirement for the Core 40 and General Diploma only

**5056 Introduction to Agriculture****Grades 9-12****Prerequisite: None**

Introduction Agriculture is a year-long, two-credit course that is highly recommended as a prerequisite to and a foundation for all other agricultural classes. Through hands-on learning activities, students are encouraged to investigate areas of agriculture. Students are introduced to the following areas of agriculture: animal science, plant and soil science, food science, horticultural science, agricultural business management, natural resources, agriculture power, structure, and technology, careers in agriculture, leadership, and supervised agricultural experience. Students will learn: to identify different animal species and breeds, how to take care of different animals, basics about FFA and what a student can get from it, leadership skills, about different aspects of the environment and how to care for it, and basic shop skills.

**5180 Natural Resources****Grades 9-12****Prerequisite: None**

This course is a year-long, two-credit course that provides students with a background in natural resource management. Students are introduced to career opportunities in natural resource management and related industries, understanding forest ecology importance, recognizing trees and their products, tree growth and development, forest management, measuring trees, timber stand improvement and urban forestry, soil features, erosion and management practices, conservation practices, water cycles, uses, quality standards, reducing water pollution, conducting water quality tests, watersheds, and its importance to natural resource management, hazardous waste management, native wildlife, waterfowl, wetlands, and fish management, topography map use, management of recreational areas, game bird and animal management, outdoor safety, and weather.

**5132 Horticultural Science****Grades 9-12****Prerequisite: None**

Horticultural Science is a year-long, two-credit course. The course is designed to give students a background in the field of horticulture and its many career opportunities. Topics which may be included are: reproduction and propagation of plants, plant growth, growth media, floriculture, management practices for field and greenhouse production, marketing concepts, production of herbaceous, woody, and nursery stock, fruit, nut, and vegetable production, and pest management. Greenhouse activities will be included.

\*May count as a Science requirement for the General Diploma.

**5136 Landscape Management****Grades 9-12****Prerequisite: None**

Landscape Management is a year-long, two-credit mini course focusing on the different aspects of landscaping. Areas of study are planning and design of a landscape using current technology practices, the principles and procedures involved with landscape construction, the determination of maintenance schedules, communications and management skills, and the care and use of equipment utilized by landscapers. Out-of-school projects will be explored.

**5170 Plant and Soil Science****Grades 9-12****Prerequisite: None**

Plant and Soil Science is a year-long, two-credit course. The course is designed to give students a background in the field of horticulture and its many career opportunities. Topics which may be included are: how Indiana soils are formed, how to texture soils, how to use the soil texture triangle, how to judge soils, equipment used to raise different plants, how to operate equipment and growing plants.

\* Fulfills a Life Science or Physical Science requirement for the General Diploma only

**5228 Supervised Agricultural Experience**  
**Prerequisite: Fund. of Ag and APPROVAL of instructor**

**Grades 9-12**

SAE is a course that is offered each semester as well as during the summer. SAE may be offered as a Cooperative Education Program. This course is designed to provide students with opportunities to gain experience in the agriculture field(s) in which they are interested. Students should experience and apply what is learned in the classroom, laboratory, and training site to real-life situations. Students will work with their ag instructor, parents, and/or employers to get the most out of their SAE program. A maximum of four credits may be earned during the students high school career. Instructor and/or counselor may waive the prerequisite.

**5002 Career Intern (Supervised Agricultural Experience) Grade 12**

This is a one-semester, one-credit course (may be taken both semesters). Career Intern provides students opportunities to learn about themselves and about various traditional and nontraditional occupations and careers. Students will job-shadow a professional in a field the student chooses. The program does not require payment of the intern, but, if the business decides too, it is allowed. Students will meet in the classroom every other Friday to discuss what is going on with their placement, and to do career related activities.

\* This is offered for a select number of 11 Grade students. Must have all required classes fulfilled prior to Career Intern and need to be on the Academic Honors Track.

***FFA***

The FFA is the career and technical education student organization, which is an integral part of the vocational program of instruction in agricultural education. The many activities of the FFA are directly related to occupational goals and objectives. As an integral part of the instructional program, district and state level FFA activities provide students opportunities to demonstrate their proficiency in the knowledge, skills, and attitudes they have acquired in the Ag education program. Students may be rewarded and recognized for their competence. A wide variety of activities, camps, and trips are available to FFA members.

***Business***

**Not all of our Business courses will be offered each school year.** This allows our students to experience as many Business courses as they would like during their four years of high school. Students must use the following information to request classes, and complete their 4-Year Plan:

**2021/22 Accounting Fundamentals, Principles of Business Management, Introduction to Computer Science I, Preparing for College and Careers**

**4518 Introduction to Business****Grades 9-12****Prerequisite: None**

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

**4524 Accounting Fundamentals****Grades 10-12****Prerequisite: None**

Accounting Fundamentals is a semester-long, one-credit directed elective course that emphasizes the basic principles, concepts, and procedures of accounting that every student must understand if he/she expects to have the maximum opportunity when he/she enters the world of business. Emphasis is placed on understanding the complete accounting cycle from opening entry to financial statements using double entry accounting. Students move from the simple to complex in regards to forms, procedures, and accounting problems.

**4522 Advanced Accounting****Grades 11-12****Prerequisite: Accounting I**

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

**4540 Personal Financial Responsibility****Grades 10-12****Prerequisite: None**

Personal Financial Responsibility is a one-semester, one-credit directed elective course that addresses the identification and management of personal financial resources to meet the financial needs and wants of individuals and families. This course helps students build skills in financial responsibility and decision making; analyze personal standards, needs, wants, and goals; understand banking, budgeting, record-keeping and managing risk, insurance and credit card debt. Counts as a Directed Elective\*

**5914 Principles of Marketing****Grades 10-12****Prerequisite: None**

Principles of Marketing is a one-semester, one-credit directed elective course that provides a basic introduction to the scope and importance of Marketing in the global economy. Emphasis is placed on oral and written communication, mathematical applications, problem solving, and critical thinking skills.

**Prerequisite: None**

Business Law and Ethics is a one-semester, one-credit directed elective course that provides the basic foundation of the legal system. This course will cover consumer rights and obligations, contractual agreements, business rights and obligations, torts, law for minors, and both criminal and civil trials. Instructional strategies may include mock trials, case studies, field trips, guest speakers, and computer/technology applications.

**4562 Principles of Business Management****Grades 11-12****Prerequisite: None**

Principles of Business Management is a year-long, two-credit directed elective course that will assist students in successfully making the transition from school to work. The lab includes the use of a variety of office equipment, such as: computers; electronic typewriters; multi-line telephones with facsimile and voicemail operations; laser, and ink jet printers; copy machines; desktop calculators all to aide in the production of office documents. Students are also taught the basic procedures for alphabetic and numeric filing, machine duplication, telephone skills, interpersonal skills, communication skills, decision-making skills and career opportunities. Can be taken both semesters or for only one semester.

**5394 Preparing for College and Careers****Grade 9****Prerequisite: Required for ALL Diplomas, required for all 9th graders**

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

**4528 Digital Application & Responsibility****Grade 9-12****Prerequisite: None**

Digital Applications and Responsibility prepares students to use technology in an effective and appropriate manner in school, in a job, or everyday life. Students develop skills related to word processing, spreadsheets, presentations, and communications software. Students learn what it means to be a good digital citizen and how to use technology, including social media, responsibly. Students expand their knowledge of how to use digital devices and software to build decision-making and problem solving skills. Students should be provided with the opportunity to seek industry-recognized digital literacy certifications.

**4803 Introduction to Computer Science****Grade 9-12****Prerequisite: None**

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

**1002 English 9****Grade 9****Prerequisite: None**

English 9 is a year-long, two-credit course that integrates the study of literature, composition, and oral communication, English 9 students further develop their use of language as a tool for learning and thinking and as a source of pleasure. Students practice identifying, analyzing, and composing with different elements, structures, and genres of written language. Literature instruction focuses on opportunities to:

- read and comprehend a broad variety of literature applying appropriate reading strategies to enhance reading skills and literary appreciation which includes the ability to: (1) identify and analyze the elements of story structure, (2) utilize literature and expository material related to the world of work and technical documents, (3) identify literature by genre, (4) identify the authors purpose and perspective, (5) recognize bias and propaganda, and (6) identify and analyze elements of drama; and
- develop vocabulary through: (1) decoding, (2) the use of Greek and Latin roots: (3) literary terms and the use of glossaries, (4) contextual clues, and (5) independent reading.

**1004 English 10****Grade 10****Prerequisite: English 9**

English 10 is a year-long, two-credit course that reinforces and continues to make full use of many of the activities and skills of English 9. Beyond these, English 10 adds the following emphasis: (1) consideration of a given canon of literature, usually American Literature; and (2) increased focus on the self-conscious choice of comprehension and writing strategies. The last 9 week grading period students will be required to study the communication process, prepare and deliver a variety of public speaking skills.

**1006 English 11****Grade 11****Prerequisite: English 10**

English 11 is a year-long, two-credit course that integrates the study of literature, composition, and oral communication, English 11 students further develop their use of language as a tool for learning and thinking and as a source of pleasure. In English 11, students move from predominantly analyzing and using the elements of written language to making judgments based on those analyses. English 11 also incorporates a literary canon, much of which is from a culture or time period different from that of the students B usually a survey of British Literature or American Literature from different periods. Literature instruction focuses on opportunities to:

- develop criteria for judging and analyzing literary works, speeches, essays, and poetry;
- select appropriate reading skills and strategies to: (1) distinguish elements in literature that make it a reflection of the social, economic, political thinking, or condition of the times; (2) analyze literature as it reflects divergent points of view; and (3) identify how contemporary writing reflects past tradition and movements;
- read works of British Literature from the Anglo-Saxon period to the Modern period, which includes essays, short stories, poetry, novels, and dramatic works;

- respond critically, reflectively, and imaginatively to American Literature, including major authors from the Puritan Era, Age of Reason, the Romantic Period, the Civil War Era, the Twenties, Modern Black Literature, the Forties, the Fifties, and Modern Drama, and recognize the relevance of this literature in today's world; and
- develop vocabulary through: (1) decoding, (2) the use of Greek and Latin roots, (3) literary terms and the use of glossaries, (4) contextual clues, (5) recognizing analogies, and (6) independent reading.

### 1006H English 11 Honors

Grade 11

**Prerequisite: English 9-10, Grade of "B", completed the PSAT, Passed ISTEP Lang. Arts, Completed outside reading requirements**

English 11 Honors is a year-long, two-credit pre-AP English course. Students will prepare for the skills practiced in the English 12 AP/College Credit course.

### 1008 English 12G

Grade 12

**Prerequisite: English 11**

English 12 is a year-long, two-credit course that meets the 12th grade English requirement for a general diploma. This course is not a CORE40 or AHD course.

### 1008 English 12

Grade 12

**Prerequisite: English 11**

English 12 is a year-long, two-credit course that contributes to refine student's ability and desire to learn and communicate about language and literature. Students will use literacy, interpretation, analysis, comparisons, and evaluation to read and respond to representative works of historical and cultural literature.

### 1008H English 12 Honors

Grade 12

**Prerequisite: English 9-11, Grade of "C", passing ISTEP Lang. Arts**

English 12 is a year-long, two-credit course that continues to refine student's ability and desire to learn and communicate about language and literature. While students developed judgments informed by keen literary analysis in Grades 9-11, in Grade 12 they practice explaining and defending their readings to others. In addition, the emphasis on different cultural contexts is intensified in a focus on world literature. To negotiate these texts, students learn to identify and communicate about the broad themes, trends, and cultural issues present in world literature. Literature instruction focuses on opportunities to:

- apply appropriate reading skills and strategies to make and defend judgments about written quality and content of literary works, written and technologically generated material, literary genres, conventions, and story structure;
- respond critically, reflectively, and imaginatively to the literature of outstanding world writers; become acquainted with cultures of other countries; study themes that relate to mankind and outstanding world writers; and analyze literature as it reflects a divergent point of view in all literary periods; and
- develop vocabulary through: (1) decoding, (2) the use of Greek and Latin roots, (3) literary terms and the use of glossaries, (4) contextual clues, (5) recognizing analogies, and (6) independent reading.



**1124 English Language and Composition Grade 12**  
**AP or College Credit (Weighted Grade)**

**Prerequisite: English 11 Honors, Grade of B, Completed outside reading and writing grade of 70% on the reading tests**

AP/College Credit Composition is a year-long, two-credit course. All students will complete the AP curriculum with some students also opting to earn college credits. The college credit option would earn students three credits through Indiana University. This course meets the college freshmen writing requirement at most universities and the high school 12th grade English requirement. Writing assignments will be frequent, including weekly in-class essays and periodic research papers. Students will also be expected to participate fully in class discussions and make presentations. Students should make use of technological resources both in researching and in producing their papers.

- Possible to earn 3 college credits through IU, cost is \$25 per credit

**1084 Mass Media Grade 11-12**

**Prerequisite: Computer Skills**

**Student Publications/Mass Media** is a year-long, two-credit course based on the principles of journalism, photography, and mass media. Yearbook Staff demonstrate their ability in journalistic writing and design for production and publication of the high school yearbook and a variety of media formats. Students work both independently and as a staff on a yearlong project. From choosing an initial theme and designing a cover, to marketing and budgeting the finished product, students collaborate within the school and the community to produce a quality yearbook. Potential staff members must be driven, open-minded, able to work well with others, and committed to the ultimate goal of making a yearbook that is always better than the year before.

***Family and Consumer Sciences***

**Not all of our Family and Consumer Science courses will be offered each school year.** This allows our students to experience as many FACS courses as they would like during their four years of high school. Students must use the following information to request classes, and complete their 4-Year Plan:

**2021/22 Adv. Child Development and Parenting , Textiles and Fashion I, Textiles and Fashion II, and Interpersonal Relationships**

**5360 Advanced Child Development & Parenting Grades 9-12**

**Prerequisite: None**

Advanced Child Development and Parenting is a one-semester, one-credit course which will help students understand the challenge and responsibility of parenthood. Students will learn how to meet the physical, emotional, intellectual, moral, and developmental needs of toddlers through young adulthood. Some of the assignments: small cookbook, game book, write a children's book, and care for the realcare baby for a weekend.

**5350 Housing & Interiors****Grades 9-12****Prerequisite: None**

Housing and Interiors is a one-semester, one-credit course in which students will explore housing needs and choices. They will take in consideration economics, social and artistic factors. Students will have a project where they will plan and exhibit the interior and exterior of a home/haunted house/another example using small boxes. Career choices in housing will be investigated.

**5340 Advanced Nutrition & Wellness****Grades 9-12****Prerequisite: None**

Advanced Foods and Nutrition is a year-long, two-credit course which students will continue studying the value in foods. Concentration on meal planning and preparation through the use of laboratory experiences will be utilized to develop food handling and preparation skills; attention will be given to nutrition, food safety and sanitation. They will also study cultural foods, weight control, and MyPlate. Career choices in dietetics and food service will be investigated.

**5420 Fashion & Textiles I****Grades 9-12****Prerequisite: None**

Textiles and Fashion I is a one-semester (Semester One), one-credit course that includes mending and care of clothing and textile articles needed in the home. Some projects include: knitting and hand embroidering a pillow, and mending clothing. Career choices will be investigated in the clothing and textile industry.

**5421 Fashion & Textiles II****Grades 9-12****Prerequisite: Textiles & Fashion I**

Textiles and Fashion II is a one-semester (Semester Two), one-credit course that includes constructing clothing and textile articles needed in the home at an advanced level. The nature of this course allows for successive semesters of instruction at an advanced level. One large project includes sewing a rag quilt.

**5366 Human Development and Family Wellness****Grades 9-12****Prerequisite: None**

Human Development and Family Wellness is a one-semester, one-credit course that addresses development and wellness of individuals and families throughout the life cycle. This is a project based class and includes: planning of a wedding, planning of a funeral, and completing a scrapbook of a period of a student's life.

**5364 Interpersonal Relationships****Grades 9-12****Prerequisite: None**

Interpersonal Relationships is a one-semester, one-credit course that will empower students to behave positively in relationships they encounter throughout their lives. This is a project-based class. Some of the projects are: a presentation of an after school activity and watching movies and examining them within groups. There is a lot of classroom discussion time.

## ***Fine Arts***

### ***Art***

**Not all of our Art courses will be offered each school year.** This allows our students to experience as many Art courses as they would like during their four years of high school. Students must use the following information to request classes, and complete their 4-Year Plan:

#### **2021/22 Ceramics, Painting, Digital Design, Visual Communications**

#### **4000 Introduction to Two-Dimensional Art Grades 9-12**

##### **Prerequisite: None**

Intro to Two-Dimensional Art is a one-semester, one-credit course that introduces each student to the fundamentals of two-dimensional art. Students will participate in examples of art history, aesthetic experiences, criticism, production, careers and integrated studies. Problems move from simple exercises to original pieces.

#### **4002 Introduction to Three-Dimensional Art Grades 9-12**

##### **Prerequisite: None**

Intro to Three-Dimensional Art is one-semester, one-credit course that introduces each student to the fundamentals of three-dimensional design. Students will participate in examples of art history, aesthetic experiences, criticism, and production, careers and integrated studies. Students in this course will explore the use of a variety of materials and discover multiple sculptural styles.

#### **4004 Advanced Two-Dimensional Art Grades 10-12**

##### **Prerequisite: Intro to 2-D Art**

Advanced Two-Dimensional Art is a one-semester, one-credit course. This course builds on the sequential learning experiences of Intro to Two-Dimensional Art and includes art history, art criticism, and art production, careers and integrated studies. The nature of this course allows for successive semesters of instruction at an advanced level.

#### **4006 Advanced Three-Dimensional Art Grades 10-12**

##### **Prerequisite: Intro to 3-D Art**

Advanced Three-Dimensional Art is a one-semester, one-credit course. This course builds on the sequential learning experiences of Intro to Three-Dimensional Art and includes art history, art criticism, and art production, careers and integrated studies. The nature of this course allows for successive semesters of instruction at an advanced level.

#### **4040 Ceramics (L) Grades 9-12**

##### **Prerequisite: None**

Ceramics is a one-semester, one-credit course. Students in ceramics engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works. Students create works of art in clay utilizing the processes of hand building, molds, wheel throwing, slip and glaze techniques, and the firing processes. Additionally, students: (1) reflect upon the outcome of these experiences, (2) explore cultural and historical connections, (3) write about the process, (4) make presentations about their progress at regular intervals, (5) work individually and in groups, (6) find direct correlations to other disciplines, and (7) explore career options related to ceramics. Art museums, galleries, studios, and community resources are utilized.

**4064 Painting (L)****Grades 9-12****Prerequisite: None**

Painting is a one-semester, one-credit course. Students taking the class in painting engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production that lead to the creation of portfolio quality works. Within this context, students: (1) create abstract and realistic paintings, (2) reflect upon the outcome of these experiences, (3) explore historical connections, (4) write about the process, (5) make presentations about their progress at regular intervals, (6) work individually and in groups, (7) find direct correlations to other disciplines, and (8) explore career options related to painting. Art museums, galleries, studios and/or community resources are utilized.

**4082 Digital Design****Grades 9-12****Prerequisite: None**

Digital Design is a one-semester, one-credit course. Digital Design is a course based on the Indiana Academic Standards for Visual Art. Students in digital design engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works. They incorporate desktop publishing, multi-media, digitized imagery, computer animation, and web design. Students reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art related careers

**4086 Visual Communications****Grades 9-12****Prerequisite: None**

Visual Communications is a one-semester, one-credit course. Visual Communication is a course based on the Indiana Academic Standards for Visual Art. Students in visual communication engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works. They create print media utilizing graphic design, typography, illustration, and image creation with digital tools and computer technology. Students reflect upon and refine their work; explore cultural and historical connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. Students utilize the resources of art museums, galleries, and studios, and identify art-related careers. Students in printmaking engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production that lead to the creation of portfolio quality works. Within this context, students create abstract and realistic prints utilizing processes such as etching, relief, and lithography. Additionally, students: (1) reflect upon the outcome of these experiences, (2) explore historical connections, (3) write about the process, (4) make presentations about their progress at regular intervals, (5) work individually and in groups, (6) find direct correlations to other disciplines, and (7) explore career options related to printmaking. Art museums, galleries, studios, and community resources are utilized.

## ***Music***

**4170M**     **Advanced Concert Band - 1st Sem Marching Band**

**Grades 9-12**

**4170C**     **Advanced Concert Band - 2nd Sem Concert Band**

**Prerequisite: Middle school Band or Private Lessons**

Advanced Concert Band is a two-semester, two-credit course based on the Indiana Academic Standards for High School Instrumental Music. This course provides students with a balanced comprehensive study of music through the concert band, which develops skills in the psychomotor, cognitive, and affective domains. Ensemble and solo activities are designed to develop elements of musicianship including tone production, technical skills, intonation, music reading skills, listening skills, analyzing music, studying historically significant styles of literature, and integration of other applicable disciplines.

Experiences include improvising, conducting, playing by ear, and sight-reading. Students develop the ability to understand and convey the composer's intent in performance of music. Time outside of the school day will be scheduled for rehearsals and performances. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Students are required to participate in performance opportunities outside of the school day that support and extend learning in the classroom including concerts, parades, rehearsals, and attendance at athletic events.

**4182**     **Beginning Chorus**

**Grades 9-12**

**Prerequisite: None**

Beginning Chorus is a two-semester, two-credit course (may be taken for successive semesters) that develops musicianship and specific performance skills through ensemble and solo singing. 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 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.

**4188**     **Advanced Chorus**

**Grades 10-12**

**Prerequisite: Beginning Chorus or Director Approval**

Advanced Chorus is a two-semester, two-credit course (may be taken for successive semesters) that develops musicianship and specific performance skills through ensemble and solo singing. 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.

**4200 Applied Music (Guitar)**

**Grades 9 - 12**

**Prerequisite: None**

Applied Music is a two-semester, two-credit course based on the Indiana Academic Standards for High School Instrumental Music. Applied Music offers high school students the opportunity to receive small group instruction designed to develop and refine performance skills related to the guitar. A variety of music methods and repertoire is utilized to refine students' abilities in performing, creating, and responding to music.

**4200P Applied Music (Percussion)**

**Grades 9 - 12**

**Prerequisite: None**

Applied Music is a two-semester, two-credit course based on the Indiana Academic Standards for High School Instrumental Music. Applied Music offers high school students the opportunity to receive small group instruction designed to develop and refine performance skills related to percussion. A variety of music methods and repertoire is utilized to refine students' abilities in performing, creating, and responding to music. Students will need to have outside access to the instruments utilized during class.

***Health, Physical Education, and Safety***

**3542 Physical Education I (L) (Required of all Freshmen)**

**Grade 9**

**Prerequisite: None**

Physical Education is a year-long, two-credit course that continues the emphasis on health-related fitness and developing the skills and habits necessary for a lifetime of activity. This program includes skill development and the application of rules and strategies of complex difficulty in at least three of the following different movement forms: (1) health-related fitness activities (cardiorespiratory endurance, muscular strength and endurance, flexibility, and body composition), (2) aerobic exercise, (3) team sports, (4) individual and dual sports, (5) gymnastics, (6) outdoor pursuits, (7) self-defense, (8) aquatics, (9) dance, and (10) recreational games. Ongoing assessment includes both written and performance-based skill evaluations.

- This course is required to meet state graduation requirements, Academic Honors diploma, and Core 40 requirements.

**3506 Health Education**

**Grade 10**

**Prerequisite: None**

Health Education is a one-semester, one-credit course that provides the basis for the continued methods of developing knowledge, concepts, skills, behaviors, and attitudes related to student health and well-being. This course includes the major content areas in a planned, sequential, and comprehensive health education curriculum as expressed in the Indiana Health Education Standards Guide: (1) Growth and Development; (2) Mental and Emotional Health; (3) Community and Environmental Health; (4) Nutrition; (5) Family Life; (6) Consumer Health; (7) Personal Health ; (8) Alcohol, Tobacco, and Other Drugs; (9) Intentional and Unintentional Injury ; (10) Health Promotion and Disease Prevention.

**Prerequisite: PE I**

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

- May be taken in successive semesters for a maximum of 6 credits.

**3560W Weight Training & Conditioning**

Grades 10-12

**Prerequisite: PE I**

Weight Training & Conditioning is a one-semester, one-credit course. It involves a physically demanding program of weight training and fitness activities designed to enhance strength, speed, agility, flexibility, jumping and coordination for student athletes. In addition to written assessments, students will be required to take periodic performance-based strength and fitness tests before or after school.

- \*May be taken in successive semesters.

## ***Industrial Technology***

***Not all of our Industrial Technology courses will be offered each school year.*** This allows our students to experience as many of these courses as they would like during their four years of high school. Students must use the following information to request classes, and complete their 4-Year Plan:

**2021/22 Intro to Construction, Intro to Manufacturing, Welding Technology I, Robotics, Computer Science I, Computers in Design**

**4792 Introduction to Construction**

Grades: 9-12

**Prerequisite: None**

Introduction to Construction is a one-semester, one-credit course that will offer hands-on activities and real world experiences related to the skills essential in residential, commercial and civil building construction. During the course students will be introduced to the history and traditions of construction trades. The student will also learn and apply knowledge of the care and safe use of hand and power tools as related to each trade. In addition, students are introduced to blueprint reading, applied math, basic tools and equipment, and safety. Students will demonstrate building construction techniques, including concrete and masonry, framing, electrical, plumbing, dry walling, HVAC, and painting as developed locally in accordance with available space and technologies. Students learn how architectural ideas are converted into projects and how projects are managed during a construction project in this course. Students study construction technology topics such as preparing a site, doing earthwork, setting footings and foundations, building the superstructure, enclosing the structure, installing systems, finishing the structure, and completing the site. Students also investigate topics related to the purchasing and maintenance of structures, special purpose facilities, green construction and construction careers.

**Prerequisite: None**

Introduction to Design Processes is a year-long, two-credit 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.

**5608 Introduction to Advanced Manufacturing****Grades 11-12****Prerequisite: Intro to Design or Intro to Mfg.**

Introduction to Advanced Manufacturing is a year-long, two-credit course that specializes in how people use modern manufacturing systems with an introduction to advanced manufacturing and logistics and their relationship to society, individuals, and the environment. Students apply the skills and knowledge of using modern manufacturing processes to obtain resources and change them into industrial materials, industrial products and consumer products. Students investigate the properties of engineered materials such as: metallics; polymers; ceramics; and composites. Students study six major types of material processes: casting and molding; forming; separating; conditioning; finishing; and assembling. After gaining a working knowledge of these materials, Students are introduced to advanced manufacturing, logistics, and business principles that are utilized in today's advanced manufacturing industry. Students gain a basic understanding of tooling, electrical skills, operation skills, inventory principles, MSDS's, chart and graph reading and MSSC concepts. There is also an emphasis placed on the flow process principles, material movement, safety, and related business operations. Students have the opportunity to develop the characteristics employers seek as well as skills that will help them in future endeavors.

**4784 Introduction to Manufacturing****Grades 9-12****Prerequisite: None**

Introduction to Manufacturing is a year-long, two credit course that specializes in how people use modern manufacturing systems with an introduction to manufacturing technology and its relationship to society, individuals, and the environment. An understanding of manufacturing provides a background toward developing engineering & technological literacy. This understanding is developed through the study of the two major technologies, material processing and management technology, used by all manufacturing enterprises. Students will apply the skills and knowledge of using modern manufacturing processes to obtain resources and change them into industrial materials, industrial products and consumer products. Students will investigate the properties of engineered materials such as: metallics; polymers; ceramics; and composites. After gaining a working knowledge of these materials, students will study six major types of material processes: casting and molding; forming; separating; conditioning; finishing; and assembling.



## 5776 Welding Technology I

Grades 9-12

### Prerequisite: None

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

## 4798 Introduction to Transportation

Grades 9-12

### Prerequisite: None

Introduction to Transportation is a one-semester, one credit 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.

## 4728 Robotics Design and Innovation

Grades 9-12

### Prerequisite: None

Robotics Design and Innovation allows students to design, program, and test innovative technological designs related to robotic systems. Topics involve mechanics, pneumatics, control technologies, computer fundamentals, and programmable control technologies. Students design, build, and optimize robots to perform a variety of pre-designated tasks. Individuals or small teams may choose to participate in organized robotic competitions or develop their own events during the course. Through this course, students will investigate exciting career and collegiate programs of study.

## 4801 Computer Science I

Grades 9-12

### Prerequisite: None

Computer Science I is a two semester, two credit course that introduces the structured techniques necessary for the efficient solution of business-related computer programming logic problems and coding solutions into a high-level language. The fundamental concepts of programming are provided through explanations and effects of commands and hands-on utilization of lab equipment to produce accurate outputs. Topics include program flow-charting, coding, and hierarchy charts as a means of solving problems.

## 4800 Computers in Design & Production

Grades 9-12

### Prerequisite: None

Computers in Design Production is a one semester course that specializes in using modern technological processes, computers, design, and production systems in the production of products and structures through the use of automated production systems. Students apply ingenuity using tools, materials, processes, and resources to create solutions as it applies in the electronics and architecture. Course content should address major technological content related to topics such as: Architectural drawing and print design, design documentation using CAD systems; assignments involving the interface of CAD, CNC, CAM, and CIM technologies; computer simulation of products and systems; publishing of various media; animation and related multimedia applications; 3-D modeling of products or structures; digital creation and editing of graphics and audio files; control technologies; and automation in the modern workplace.

**Prerequisite: None**

Introduction to Communications is a year-long, two-credit course that specializes in identifying and using modern communication to exchange messages and information. This course explores the application of the tools, materials, and techniques used to design, produce, use, and assess systems of communication. Students will produce graphic and electronic media as they apply communication technologies. This course will also explore the various technical processes used to link ideas and people through the use of electronic and graphic media. Major goals of this course include an overview of communication technology; the way it has evolved, how messages are designed and produced, and how people may profit from creating information services and products. Students will explore mass media communication processes including radio and television broadcasting, publishing and printing activities, telecommunication networks, recording services, computer and data processing networks, and other related systems. Using the base knowledge student will use the design process to solve design projects in each communication area.

## Mathematics

**Not all of our Mathematics courses will be offered each school year.** This allows our students to experience as many of these courses as they would like during their four years of high school. Students must use the following information to request classes, and complete their 4-Year Plan:

**2021/22 Algebra I, Algebra II, Geometry, Probability and Statistics, Pre-Calculus, AP Calculus**

## 2516 Algebra I Lab

Grade 9

**Prerequisite: None**

Algebra I Lab is a year-long, two-credit mathematics support course for Algebra I. The course provides students with additional time to build the foundations necessary for high school math courses, while concurrently having access to rigorous, grade-level appropriate courses. The five critical areas of Algebra Enrichment align with the critical areas of Algebra I: Relationships between Quantities and Reasoning with Equations; Linear and Exponential Relationships; Descriptive Statistics; Expressions and Equations; and Quadratic Functions and Modeling. However, whereas Algebra I contains exclusively grade-level content, Algebra I Lab combines standards from high school courses with foundational standards from the middle grades.

- Counts as a Mathematics Course for the General Diploma only or as an Elective for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- Algebra I Lab is designed as a support course for Algebra I. As such, a student taking *Algebra I Lab must also be enrolled in Algebra I during the same academic year.*

## 2520 Algebra I

Grades 9-12

**Prerequisite: Passing grade in 8th grade math**

Algebra I is a year-long, two-credit course that provides a formal development of the algebraic skills and concepts necessary for students to succeed in advanced 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.

**2522 Algebra II****Grades 10-12****Prerequisite: Algebra I**

Algebra II is a year-long, two-credit course. A good portion of the first semester focuses on review of Algebra I concepts. The remainder of the year is devoted to: quadratic equations, imaginary numbers, trigonometry, systems of linear equations, conic sections, and rational expressions.

**2532 Geometry****Grade 10****Prerequisite: Algebra I**

Geometry is a year-long, two-credit course which develops a student's reasoning skills, both deductive and inductive. Through studying different geometric shapes the student will see how Geometry is a part of our environment. The concepts of congruency, similarity, trigonometric ratios, area and volume are stressed.

**2531 Math 10****Grades 10****Prerequisite: Algebra I**

Math 10 is a year-long, two-credit course designed to reinforce and evaluate the Algebra I knowledge and skills necessary for students to successfully complete high school math courses beyond Algebra I and essentials for passing the state's graduation exam in math.

\*Enrollment will be contingent upon the recommendation of the student's Algebra I teacher.

\*Student's must have completed one full year of Algebra I.

\*Counts as math credits ONLY for a General Diploma.

**2546 Probability and Statistics****Grades 11-12****Prerequisite: Algebra II**

Probability and Statistics is a year-long, two-credit course that includes the concepts and skills needed to apply statistical techniques in the decision-making process. Topics include: (1) descriptive statistics, (2) probability, and (3) statistical inference. Practical examples based on real experimental data are used throughout. Students plan and conduct experiments or surveys and analyze the resulting data. The use of graphing calculators and computer programs is encouraged.

**2544 Pre-Calculus****Grades 11-12****Prerequisite: Algebra II \*student's required to have a graphing calculator**

Pre-Calculus is a year-long, two-credit course open to Juniors or Seniors preparing for college and interested in advancing to AP Calculus. The class includes the topics of polynomial equations, logarithms, functions, conic sections, and trigonometry. Student have the opportunity to earn dual credit if they meet certain requirements.

**2562 AP Calculus (Weighted Grade)****Grade 12****Prerequisite: Pre-Calculus with a grade of "B" or higher**

Calculus, Advanced Placement is a year-long, two-credit course that provides students with the content established by the College Board. Topics include: (1) functions, graphs, and limits, (2) derivatives, and (3) integrals. The use of graphing technology is required. Student have the opportunity to earn dual credit if they meet certain requirements.

## ***Multi-disciplinary***

### **0520 Peer Tutoring**

**Grades 11-12**

#### **Prerequisite: Application / Teacher Recommendation**

Peer Tutoring is a one-semester, one-credit course, that provides high school students with an organized exploratory experience to assist students in kindergarten through grade twelve (K-12), through a helping relationship, with their studies and personal growth and development. The course provides opportunities for the students taking the course to develop a basic understanding of individual differences and to explore career options in related fields. Peer Tutoring experiences are preplanned by the teacher trainer and any cooperating teacher under whom the tutoring is to be provided. It must be conducted under the supervision of a licensed teacher. The course provides a balance of class work relating to the development of and use of: (1) listening skills, (2) communication skills, (3) facilitation skills, (4) decision-making skills, and (5) teaching strategies.

### **0532 College Entrance Preparation (SAT Prep)**

**Grades 10-12**

#### **Prerequisite: Algebra II (or concurrent enrollment in Algebra II)**

College-Entrance Preparation is a one-semester, one-credit course that utilizes individual student score reports from the PSAT and/or ACCUPLACER to prepare students for the SAT, ACT, ACCUPLACER and/or Compass college readiness assessments. Students will receive instruction to strengthen their foundations in critical reading, writing, mathematics, and science sections of college admission and placement exams. As appropriate, the course will also encompass test taking strategies to prepare students for success on a high-stakes assessment. Course may also include college selection and application units, to better prepare students for overall college-readiness. Being ready for college means that a high school graduate has the English and mathematics knowledge and skills necessary to qualify for and succeed in entry-level, credit-bearing college courses without the need for remedial coursework.

## ***Science***

### **3024 Biology I (L)**

**Grades 9-12**

#### **Prerequisite: None**

Biology I is year-long, two-credit course based on the following core topics: cellular structure and function, matter cycles and energy transfer; interdependence; inheritance and variation in traits; evolution. Instruction should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation by designing and conducting investigations guided by theory and by evaluating and communicating the results of those investigations according to accepted procedures.

### **3030A Applied Biology I**

**Grades 9-12**

#### **Prerequisite: None**

Applied Biology I is a year-long, two-credit course based on the following core topics: cellular chemistry, structure and reproduction; matter cycles and energy transfer; interdependence of organisms; molecular basis of heredity; genetics and evolution. Instruction should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation by designing and conducting investigations guided by theory and by evaluating and communicating the results of those investigations according to accepted procedures. This is for students on a Certificate of Completion track.

**3024H Biology I Honors (L)****Grade 9****Grades 9-12****Prerequisite: Teacher Recommendation (generally will have a B or better in 8th grade Math or Science)**

Biology I Honors is an advanced, year-long, two-credit course 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. Biology I will cover four major units based on the Indiana state standards and to prepare students for the ILEARN exam to be given in the spring: Cellular Structure and Function, Matter Cycles and Energy Transfer, Interdependence, Inheritance and Variation in Traits, and Evolution. Focus will be placed on developing and using models, analyzing data, constructing and communicating explanations, and evaluating claims with evidence. A focus will be made on becoming an independent thinker, making connections between scientific phenomena, and critical thinking skills.

**\*\*If a student received an F letter grade the first semester, then they will automatically be switched to a Biology I course for second semester.**

**3010 Environmental Science****Grades 9-12****Prerequisite: Biology Recommended, not required.**

Environmental Science is a year-long, two-credit course which integrates biology, earth science, chemistry, and other disciplines. Students will conduct studies of environmental systems, flow of matter and energy, natural disasters, environmental policies, biodiversity, population, pollution, and natural and anthropogenic resource cycles. Students formulate, design, and carry out laboratory and field investigations as an essential course component. Students also be introduced to national and global environmental systems.

**5276 Anatomy & Physiology****Grades 11-12****Prerequisites: Biology I (L) or Biology I Honors (L), Chemistry I or Phys-Chem with a C or better**

Anatomy & Physiology is a two semester, two-credit college-bound elective course designed to provide information about the structure and function of the human body in lecture and laboratory settings. It is especially designed for students who are pursuing degrees/careers in science/health fields or can be used for students as a general education science course that will help them understand the human body and medical issues. Topics include medical terminology, the physical basis of life and the systems of the human body. This course is also available as a CAP course (BIO 105) through USI for non-major Biology college credit at \$25 per credit hour (4 credit hours).

**3026**      **Biology II (L)**      **\*\*See AP Biology description**      **Grades 11-12**

**3020**      **AP Biology (College Credit) (Weighted Grade)**      **Grades 11-12**

**Prerequisite: Biology I Honors (C or better), Chemistry I, Teacher discretion**

AP Biology is a second semester, two-credit course (offered in a two-period block, 1<sup>st</sup> semester students will be enrolled in Biology II for a two period block) that offers students the equivalent of a college introductory biology course usually taken by biology majors during their first year.

Biology: Advanced Placement (L) aims to provide students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology. Students may earn credit, advanced placement, or both for college based on their score on the AP exam. Students will take the Advanced Placement exam in May on the same date as students throughout the United States. On a scale of 5, a student must score a 3 or higher to be eligible for college credit. Different institutions provide differing credits based on score. This course follows the Curriculum Framework provided by the College Board and is more than 25% lab work. A high emphasis will be placed on reasoning, analysis, inquiry, making connections, and critical thinking. Biology: Advanced Placement (L) qualifies as a quantitative reasoning course.

***\*\*Students requesting this course must also request Biology II. \*\*Dual Credit is offered through Indiana University's Advanced College Project program. ACP credit is for BIOL L100.....5 credits. The cost is \$25 per credit.***

**3064**      **Chemistry I (L)**      **Grades 10-12**

**Prerequisite: Biology I/Biology I Honors, Algebra I**

**Grade of C or higher in Algebra I is strongly recommended for success in Chemistry I**

Chemistry I is a year-long, two-credit course based on the following core topics: properties and states of matter; atomic structure and the Periodic Table; bonding and molecular structure; reactions and stoichiometry; behavior of gases; thermochemistry; solutions; acids and bases. Students enrolled in Chemistry I compare, contrast, and synthesize useful models of the structure and properties of matter and the mechanisms of its interactions. Instruction should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation by designing and conducting investigations guided by theory and by evaluating and communicating the results of those investigations according to accepted procedures.

This course is at least 25% laboratory work.

**3108**      **Integrated Chemistry-Physics (ICP)**      **Grades 9-10**

**Prerequisite: Algebra 1 (may be taken concurrently with this course)**

Integrated Chemistry-Physics (ICP) is a year-long, two-credit course focused on the following core topics: constant velocity; uniform acceleration, Newton's Laws of motion (one dimension); energy; particle theory of matter; describing substances; representing chemical change; electricity and magnetism; waves; nuclear energy. Instruction should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation by designing and conducting investigations guided by theory and by evaluating and communicating the results of those investigations according to accepted procedures.

**3066 Chemistry II (College Credit) (Weighted Grade)****Grades 11-12****Prerequisite: Chemistry**

Chemistry II is a 1st semester, two-credit dual course (offered in a two-period block) and is required as the prerequisite for AP Chemistry.

**3060 AP Chemistry (College Credit) (Weighted Grade) (L)****Grades 11-12****Prerequisite: Chemistry II, Algebra II, Pre-Calculus (can be taken concurrently)**

Advanced Placement Chemistry is a 2nd semester two-credit course (offered in a two-period block). Participants throughout the United States will be tested in May with a standardized exam which will determine the students eligibility for advanced college credit. On a scale of five, a student must score a three or higher to be eligible for college credit. The primary goal of this course is to provide students with a factual and conceptual background which will prepare them for the AP examination. This course follows the Advanced Placement curriculum established by The College Board and is more than 25 % laboratory work. This course deals with topics such as : laws of chemistry, stoichiometry, solutions, oxidation-reduction, gas laws, thermodynamics, quantum theory, bonding, reaction rates, equilibrium, acid-bases, buffered solutions, entropy, and electrochemistry. The content includes: (1) structure of matter: atomic theory and structure, chemical bonding, molecular models, nuclear chemistry; (2) states of matter: gases, liquids and solids, solutions; and (3) reactions: reaction types, stoichiometry, equilibrium, kinetics and thermodynamics.

***\*\*Students requesting this course must also request Chemistry II.***

**3084 Physics I (L)****Grades 11-12****Prerequisite: Algebra II, Chemistry**

**It is recommended that students have taken or be concurrently enrolled in Pre-Cal.**

Physics is a year-long, two-credit course that studies the many forms of energy and laws governing it, mechanics and Newton's three laws of motion are studied in detail. Light energy is studied by using both particle and wave theories. The laws of energy in motion are used to describe the laws of mechanics. Using laws of both electrical and magnetic fields enables the student to understand the laws of electricity. Physics is at the root of engineering. Throughout the course we use examples of this relationship, showing how the operation of mechanical, electric, and optical devices is grounded in the fundamental laws of physics. This course is at least 25% laboratory work.

**3092 Advanced Science, Special Topics****Grades 11-12****Prerequisite: Biology I or Biology I Honors and ICP or Chemistry I**

**Forensic Science (L)** is a one semester, one-credit college bound elective course designed to teach students how to apply science to the law. Students will take the knowledge and technology of different areas of science (chemistry, anatomy, physiology, biology, toxicology and others) and see how it is used to define and enforce the laws of our country. This is a lab-oriented class that requires self-motivation. Student will study the following topics: processing the crime scene, collecting physical evidence, entomology and decomposition, anthropology, drugs and toxicology, serology, blood spatter analysis, fingerprinting, DNA analysis, autopsy and death investigation, among other topics pertaining to scientific crime scene analysis.

**Genetics (L)** is a one semester, one-credit college bound elective course designed to provide information about genetics (especially human genetics) and heredity in lecture and laboratory settings. Topics covered include cell division, Mendelian genetics, exceptions to Mendelian genetics, genetic expression and variation, DNA structure and analysis and biotechnology.

**Botany (L)** is a one-semester, one-credit course is a laboratory science emphasizing the process of scientific investigation through the study of plant morphology and physiology. This course will study the identification, classification, anatomy, ecology, and economic significance of all the major groups of plants.

**Biology Enrichment** is a one-semester, one-credit course is designed to continue past Biology I topics and may include the following: introduction to plant and animal structures, vertebrates and invertebrates, bacteria and viruses, animal behavior, and human body systems.

**Zoology (L)** is a one-semester, one-credit course is designed to provide information about animal phylogenies in lecture and laboratory focusing on topics such as classification, identification, conservation, evolution and diversity.

**Epidemiology (L) (Disease)** is a one-semester, one-credit course is designed to introduce students to the real world of health and disease. Subjects will include infectious and non-infectious diseases, pathogen identification, and treatment.

## ***Social Studies***

**Not all of our Social Studies courses will be offered each school year.** The required courses: World History, US History, Government, and Economics, will be offered every year. The elective courses, which are all mini's, will be on a two year rotation. See the list below to help you with which courses will taught during a specific year.

2021/22 Topics in SS - Geography, Indiana Studies, Ethnic Studies, World History, AP World History, US History, AP US History, Psychology, Sociology, Topics in History - WWII and the Holocaust, Government, Economics, AP Macroeconomics, AP Microeconomics

### **1550G Topics in Social Science - Geography**

**Grades 9-12**

**Prerequisite: None**

Topics in Social Science - Geography is a one-semester, one-credit course that may be taken for only one term if necessary. Students in this course will have the opportunity for in-depth study of a specific topic, theme, or concept in one or more of the social science disciplines.

### **1518 Indiana Studies**

**Grades 9-12**

**Prerequisite: None**

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



**1516 Ethnic Studies****Grades 9-12****Prerequisite: None**

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

**1512 Current Events****Grades 9-12****Prerequisite: None**

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

**1550PF Topics in Social Science - Personal Finance****Grades 9-12****Prerequisite: None**

Topics in Social Science - Personal Finance is a one-semester, one-credit course that may be taken for only one term if necessary. Students in this course will have the opportunity for in-depth study of a specific topic, theme, or concept in one or more of the social science disciplines.

**1548 World History and Civilization****Grade 10****Prerequisite: None**

World History is a year-long, two-credit course required for all Sophomores that provides for a study of selected world cultures, past and present. The content of this course provides a basis for students to compare and analyze patterns of culture, emphasizing both the diversity and commonality of human experience and behavior. This course emphasizes the interaction of local cultures with the natural environment, as well as the connections among civilizations from earliest times to the present. This course may be designed to focus on: (1) prehistory; (2) early world civilizations, including the rise of civilizations of the Middle East, Africa, and Asia; (3) the classical civilizations of Europe, Asia, Africa, and Latin America; and (4) the development of modern societies. This course might also trace important themes in human history or be designed to focus on a comparative study of two or more selected societies.

**1576 AP World History and Civilization (Weighted Grade) Grade 10**

**Prerequisite: At least an 85% in English and the completion of the summer packet**

AP World History and Civilization is: year-long, two-credit course which follows College Board Entrance Exam guidelines for advanced placement, (2) satisfies Core 40 and Academic Honors Diploma requirements, (3) prepares students to take the AP Exam in the spring. The content of this course will be basically the same as that of the regular World History with all areas being covered in much greater detail. All students taking this course will be required to take the AP exam in the Spring. Some outside reading may be assigned over the summer for preparation.

**1542 United States History Grade 11**

**Prerequisite: None**

**Required for all Juniors**

U.S. History is a year-long, two-credit course that emphasizes national development in the late nineteenth and the twentieth centuries and builds upon concepts developed in previous studies of American history. Students in this course also identify and review significant events, figures, and movements in the early development of the nation. After providing such a review, the course gives major emphasis to the interaction of historical events and geographic, social, and economic influences on national development in the late nineteenth and twentieth centuries. A chronological, topical, or comparative approach can be used in developing themes from America's past as they relate to life in Indiana and the United States today. Students demonstrate the ability to trace and analyze chronological periods and examine the relationships of significant themes and concepts in United States history. Students will be able to sequence historical events, examine cause and effect, identify different perspectives, and relate historical situations to current issues.

**1562 AP United States History (Weighted Grade) Grade 11**

**Prerequisite: Completion of the summer packet**

AP United States History is a year-long, two-credit course which follows College Board Entrance Exam guidelines for advanced placement, (2) satisfies Core 40 and Academic Honors Diploma requirements, (3) prepares students to take the AP Exam in the spring. The content of this course will be basically the same as that of the regular World History with all areas being covered in much greater detail. All students taking this course will be required take the AP exam in the Spring.

**1532 Psychology Grades 11-12**

**Prerequisite: None**

Psychology is a one-semester, one-credit course that deals primarily with the individual, his personality, and especially with the development and improvement of self-concept. Content for the course includes insights into behavior patterns and adjustments to social environments.

**1534 Sociology Grades 11-12**

**Prerequisite: None**

Sociology is a one-semester, one-credit course that provides an opportunity to study group behavior and human relationships. The class explains how we live and how others compare in values, norms, and sanctions. This class helps to prepare students for adulthood.

**Prerequisite: None**

Topics In History - The American West, is a one-semester, one-credit course that provides students the opportunity to study this specific historical era, it's events, and concepts. Development of historical research skills using primary and secondary sources is emphasized.

**1538WW Topics in History - WWII and the Holocaust****Grades 10-12****Prerequisite: None**

Topics In History - WWII and the Holocaust, is a one-semester, one-credit course that provides students the opportunity to study this specific historical era, it's events, and concepts. Development of historical research skills using primary and secondary sources is emphasized.

**1540 United States Government****Grade 12****Prerequisite: None****Required for all Seniors**

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

Students learn to analyze the roles of individuals and groups in the political process by identifying and analyzing political issues. They also learn to access data from primary and secondary resources and use current technology to access relevant source materials and as a tool for producing documents in support of learning projects. Students have opportunities to take, defend, and evaluate positions on current issues that impact political decision making. They should understand their ability to influence policies and decisions as individuals and in groups. Related learning experiences in the school and community enable students to learn how to participate effectively in the political process. The study of United States government also offers students opportunities to develop knowledge, inquiry skills, and the means to preserve and improve our constitutional democracy.

**1514 Economics****Grade 12****Prerequisite: None****Required for all Seniors**

Economics is a one-semester, one-credit course that includes a study of the allocation of scarce resources and their alternative uses for satisfying human wants. This course examines basic models of decision making at various levels and in different areas including: (1) decisions made as a consumer, producer, saver, investor, and voter; (2) business decisions to maximize profits; and (3) public policy decisions in specific markets dealing with output and prices in the national economy.

**Prerequisite: None**

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

**Prerequisite: None**

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

<b><i>Special Education</i></b>
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Students who qualify may choose to take part in the special education program at South

<b>0500MD</b>	<b>Resource Study Hall, 1 credit/sem (including 504 students)</b>	<b>Grades 9-12</b>
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<b>0500L</b>	<b>Basic Skills Language, 1 credit</b>	<b>Grades 9-12</b>
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<b>0500M</b>	<b>Basic Skills Mathematics, 1 credit</b>	<b>Grades 9-12</b>
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Students with an IEP , not pursuing a Diploma, may opt for the Certificate of Completion. See chart on next page:

## Indiana Certificate of Completion Course of Study

Effective with the students who enter high school in 2018-19 school year (class of 2022)

The Course of Study for the Certificate of Completion is a framework for aligning curriculum to grade level standards while meeting the individual goals and transition needs stated in the student's Individual Education Plan (IEP).

Minimum total 40 credits/applied units: It is expected that these requirements are met through enrollment in a combination of general education courses for credit, modified general education courses in which non-credit applied units are earned and special education courses in which non-credit applied units are earned.

English/Language Arts	<b>8 credits/applied units</b>
	Including a balance of literature, composition, vocabulary, speech/communication
Mathematics	<b>4 credits/applied units</b>
	Including a balance of number sense, expressions, computation, data analysis, statistics, probability, equations and inequalities and personal finance. Student must take a math or applied math course each year in high school.
Science	<b>4 credits/applied units</b>
	Including a balance of physical, earth/nature, life, engineering and technology
Social Studies	<b>4 credits/applied units</b>
	Including a balance of history, civics and government, geography, economics
Physical Education	<b>2 credits/applied units</b>
Health & Wellness	<b>1 credit/applied unit</b>
Employability	<b>10 credits/applied units</b>
	Job exploration, work- or project-based learning experiences, employability skills (mindsets, self-management, learning strategies, social, workplace), portfolio creation, intro to post-secondary options
	Investigation into opportunities for enrollment in postsecondary programs, work place readiness training to develop employability and independent living skills and instruction in self-advocacy
Electives	<b>7 credits/applied units</b>

### Certificate of Completion Transition Portfolio

Students earning a certificate of completion fulfill **at least one** of the following (aligned with transition goals):

1. **Career Credential:** Complete an industry-recognized certification, one-year certificate or state-approved alternative
2. **Career Experience:** Complete project- or work-based learning experience or part time employment
3. **Work Ethic Certificate:** Earn a Work Ethic Certificate (criteria to be locally determined)
4. **Other Work Related Activities:** As determined by the case conference committee

Mirrors regular diploma requirements (minimum 40 applied units or credits with emphasis on academics)

Employability Skills are an integral part of the plan

Transition portfolio is a requirement

Can be earned through any combination of applied units and credits

Aligned with Statewide Assessment (ISTAR or ISTEP)

## ***Vocational***

### **6162 I.C.E. Interdisciplinary Cooperative Education**

**Grades 11-12**

**Prerequisite: All required course work up-to-date**

ICE is a year-long, two credit course. The course meets daily and is organized around the activities associated with both the students' individual jobs and with their career objectives in an occupation from any vocational area. The concepts, skills, and attitudes basic to occupational competence are taught as principles and are applied and tested on-the-job. (May take once in grade 11 or once in 12)

### **6162C I.C.E. Coop (On-the Job-Training)**

**Grades 11-12**

**Prerequisite: Enrolled in I.C.E.**

On-the-Job-Training is an actual work experience in an occupation related to the student's career objectives for which a student earns **two** credits-per-semester. Students must be concurrently enrolled in the classroom portion of the program (I.C.E.) and work an average of fifteen hours a week in order to receive the two credits-per-semester for on-the-job-training. Students are dismissed from school two periods early to participate in this program. Interested students MUST have employment prior to the start of school.

## ***World Languages***

**\*Students in grade 9 pursuing the Honors Diploma will be given priority, and must have earned an A or B in 8th grade English, and passed the 8th grade English ISTEP to enroll in a World Language. Students in grade 9 not meeting these requirements will wait until grade 10 to enroll.**

### **2120 Spanish I**

**Grades 9-12**

**Prerequisite: Grade of "A" or "B" in the preceding year's English course**

Spanish I is a year-long, two-credit course that emphasizes vocabulary and the present tense of grammar. Students gain this knowledge by reading, writing, listening, and speaking Spanish. Also, the culture, history, and geography of Hispanic countries are emphasized to help students understand their importance. Within this context, the course provides students with opportunities to:

- respond to and give oral directions and commands and to make routine requests in the classroom and in public places;
- understand and use appropriate forms of address in courtesy expressions and be able to tell about daily routines and events;
- ask and answer simple questions and participate in brief guided conversations related to their needs and interests;
- read isolated words & phrases in a situational context, such as menus, signs, and schedules;
- comprehend brief written directions and information;
- read short narrative texts on simple topics; and
- write familiar words and phrases in appropriate contexts and respond in writing to various stimuli.

Additionally, students learn:

- about nonverbal communication, such as gestures and body language;
- about awareness of current events in the cultures;
- the major holidays and geographical features of the countries being studied;
- greeting and leave taking behaviors in a variety of social situations;
- the appropriate way to respond to introductions and use courtesy behaviors; and
- appropriate etiquette in a variety of social settings.

**2122 Spanish II****Grades 10-12****Prerequisite: "C" in Spanish I**

Spanish II is a year-long, two-credit course which will focus on expansion of vocabulary and building grammar aspects for reading, writing, speaking, and listening. Students will continue to learn about the culture and history of Hispanic countries. Students are able to:

- ask questions regarding routine activities;
- participate in conversations on a variety of topics;
- relate a simple narrative about a personal experience or event;
- interact in a variety of situations to meet personal needs, such as asking permission, asking for or responding to an offer of help, and expressing preferences pertaining to everyday life;
- understand main ideas and facts from simple texts over familiar topics;
- read aloud with appropriate intonation and pronunciation; and
- write briefly in response to given situations, for example postcards, personal notes, phone messages, and directions, as well as write letters using culturally appropriate format and style.

Additionally, students become:

- familiar with major geographical features, historical events, and political structures of the country(ies) being studied;
- familiar with different aspects of the culture, including the visual arts, architecture, literature and music, using the foreign language where appropriate;
- able to extend and respond to hospitality as a host or a guest; and
- aware of time expectations, such as arriving for appointments and social engagements.

**2124 Spanish III****Grades 11-12****Prerequisite: "C" in Spanish II**

Spanish III is a year-long, two-credit course that offers advanced learning opportunities in terms of the structure and practical uses of the language. Reading skills are developed through more complex reading selections. Special emphasis is placed in developing more advanced communication skills. This course also enables students to:

- respond to factual and interpretive questions, interact in complex social situations, and
- give presentations on cultural topics including: (1) traditions, (2) historical and paraphrase or restate what someone else has said;
- read for comprehension from a variety of longer authentic materials, such as newspapers and magazine articles, novels, and essays, as well as make judgments about what is read;
- write well-organized compositions on a given topic; and
- begin using the language creatively in writing simple poetry and prose.

Students are also:

- aware of the relationship between art forms in at least one major historical period;
- aware of the major literary, musical, and artistic periods and genres of at least one of the cultures in which the language is spoken;
- able to adjust speech appropriate to the situation and audience; and
- able to participate appropriately in a variety of specific circumstances which could include public meetings, attending concerts, and using public transportation.

## ***Southern Indiana Career & Technical Course***

These are half-day, three-credits per semester vocational programs that are offered at the Career Center located on Lynch Road in Evansville. South Spencer students will be bussed with first year students (Junior) attending a morning session, and second-year students (Senior) attending an afternoon session. These are all two-year programs.

### **VO305 Agricultural Mechanization I and II**

**Grades: 11-12**

#### **Prerequisite: None**

AGRICULTURAL MECHANIZATION I and II are intensive courses in which students develop an understanding of basic principles of selection, operation, maintenance, and management of agricultural equipment in concert with utilization of safety and technology. Topics covered include: small and large gas and diesel engine repair; power transfer systems including hydraulic, pneumatic and robotic systems; arc, metal fabrication such as MIG, TIG and SMAW welding; concrete, wood, metal, electricity and electronics; recirculating aquaculture systems, hydroponics systems, surveying, precision farming equipment, remote sensing technology and global positioning systems equipment; building agriculture related buildings and structures including greenhouses, tillage, planting, irrigation, spraying, grain and forage harvesting; feed and animal waste management systems; agricultural industry communications and customer relations; safety and safety resources, career opportunities in the area of agricultural mechanization and employability skills.

### **5008V Animal Science/Food Science**

**Grade: 11-12**

#### **Prerequisite: None**

ANIMAL SCIENCE/FOOD SCIENCE provides students with an overview of the field of animal science. Students participate in a large variety of activities and laboratory work including real and simulated animal science experiences and projects. Areas that the students study may be applied to both large and small animals. Topics to be addressed include: anatomy and physiology, genetics, reproduction and biotechnology, nutrition, aquaculture, careers in animal science, animal health, meeting environmental requirements of animals, and management practices for the care and maintenance of animals.

### **5132V Horticultural Science/Floral Design**

**Grade: 11-12**

#### **Prerequisite: None**

HORTICULTURAL SCIENCE/FLORAL DESIGN is designed to give students a background in the field of horticulture and floral design and its many career opportunities. It addresses the biology and technology involved in the production, processing, and marketing of horticultural plants and products. Topics covered include: reproduction and propagation of plants; plant growth, growth media, hydroponics, floriculture and floral design; management practices for field and greenhouse production; interior plantscapes; marketing concepts; production of herbaceous, woody, and nursery stock; fruit, nut, and vegetable production; integrated pest management; and employability skills. Students participate in a variety of activities including extensive laboratory work usually in a school greenhouse.

### **5136V/5137 Landscape Management I & II**

**Grade: 12-12**

#### **Prerequisite: None**

LANDSCAPE MANAGEMENT provides the student with an overview of the many career opportunities in the diverse field of landscape management. Students are introduced to the procedures used in the planning and design of a landscape using current technology practices, the principles and procedures involved with landscape construction, the determination of maintenance schedules, communications, management and employability skills necessary in landscaping operations, and the care and use of equipment utilized by landscapers. Upon completion of the program, students have the opportunity to receive an industry approved State Certificate of Mastery in Landscape Management.



**Prerequisite: None**

PLANT AND SOIL SCIENCE/NATURAL RESOURCE MANAGEMENT/WILDLIFE/FORESTRY provides students with a background in natural resource management. Students are introduced to career opportunities in natural resource management and related industries, understanding forest ecology importance, recognizing trees and their products, tree growth and development, forest management, measuring trees, timber stand improvement and urban forestry, soil features, erosion and management practices, conservation practices, water cycles, uses, quality standards, reducing water pollution, conducting water quality tests, watersheds, and its importance to natural resource management, hazardous waste management, native wildlife, waterfowl, wetlands, and fish management, topography map use, management of recreational areas, game bird and animal management, outdoor safety, and weather.

"Hands-on" learning activities encourage students to investigate areas of environmental concern including: identification and management of ecosystems, natural succession identification, natural communities, recycling and management of waste in the environment, soil conservation management practices, land uses, and air quality.

**5640/5652 Architectural Design (CAD) I & II****Grades: 11-12****Prerequisite: None**

ARCHITECTURAL DESIGN (CAD) I and II will include classroom and laboratory experiences that incorporate the studies of various architectural concepts related to residential and commercial design, general design theory, hand design and computer aided design (CAD), engineering, physical models building, illustration and computer animated/rendering. Students will have the unique opportunity to design a residence and the possibility to have it constructed. Students have the opportunity to receive post secondary college credit. This course prepares students for careers as architects, architectural illustrators, computer aided design technicians, electrical engineers, mechanical engineers, civil engineers, interior designers, construction managers, graphic illustrators, and 3-D animators.

**5514/5544 Automotive Collision Repair Technology I and II****Grades: 11-12****Prerequisite: None**

AUTOMOTIVE COLLISION REPAIR TECHNOLOGY I and II include classroom and laboratory experiences concerned with all phases of the repair of damaged vehicle bodies and frames, including metal straightening; smoothing areas by filing, grinding, or sanding; concealment of imperfections; painting; and replacement of body components including trim. Instruction will also emphasize computerized frame diagnosis, computerized color mixing, and computerized estimation of repair costs. Additional academic skills taught in this course include precision measurement and mathematical calibrations as well as scientific principles related to adhesive compounds, color-mixing, abrasive materials, metallurgy, and composite materials.

**5510/5546 Automotive Services Technology I & II****Grades: 11-12****Prerequisite: None**

AUTOMOTIVE SERVICES TECHNOLOGY I and II include classroom and laboratory experiences that incorporate training in service and repair work on all types of automotive vehicles. Included in the course is training in the use of service/repair information and a variety of hand and power tools. Instruction and practice provides opportunities for students to diagnose malfunctions, disassemble units, perform parts inspections, and repair and replace parts. Course content should address NATEF/ASE standards leading to certification in one or more of the following areas: steering and suspension; brakes; engine performance; manual transmissions and differential; automatic transmissions; electrical systems; air conditioning; and engine repair. Mathematical skills will be reinforced through precision measuring activities and cost estimation/calculation activities. Scientific principles taught and reinforced in this course include the study of viscosity, friction, thermal expansion, and compound solutions. Written and oral skills will also be emphasized to help students communicate with customers, colleagues, and supervisors.

**5580/5578 Building Construction Technology I & II****Grades: 11-12****Prerequisite: None**

BUILDING TRADES TECHNOLOGY I and II include classroom and laboratory experiences concerned with the erection, installation, maintenance, and repair of buildings, homes, and other structures using assorted materials such as wood, stone, brick, glass, concrete, or composition substances. Instruction covers a variety of activities such as cost estimating; cutting, fitting, fastening, and finishing various materials; the uses of a variety of hand and power tools; and blueprint reading and following technical specifications. Knowledge concerning the physical properties of materials should also be emphasized. Instruction in plastering, masonry, tile setting, dry wall installation, plumbing, residential wiring and roofing should be covered in the course of study. Additional areas of instruction can include operation and maintenance of heavy equipment used in the construction industry and processes used for digging, grading, clearing, and excavating.

Students will develop accurate and precise measuring skills and an advanced understanding of volume and area calculations as well as the advanced mathematical skills required for construction of rafters, stair stringers, and complex angles. Estimation skills will be strengthened through activities such as ordering of materials and planning construction jobs. Scientific principles will be reinforced through weight load exercise, span length determinations, and the study of relative strength. Reading skills as well as oral and written communication skills will also be emphasized to ensure students' abilities to accurately interpret instructions and provide information to customers and colleagues.

**5234/4588 Networking I & II****Grades: 11-12****Prerequisite: None**

COMPUTER NETWORK TECHNOLOGY (CISCO) I and II prepare students to design, install, maintain, and manage both local and wide area networks. Activities include a combination of classroom instruction, e-learning, and laboratory practice that develops skills in network administration and configurations, problem diagnosis and troubleshooting, system control and maintenance, and upgrades. Additional areas of emphasis will include data backup and system security. Course content will prepare students to successfully complete one or more of industry certification exams in the areas of network installation and management. Extensive course work using technical manuals will reinforce reading comprehension and retention of assigned material. Written and oral exercises will be designed to enhance students' communication skills.

**5440/5346 Culinary Arts I & II****Grades: 11-12****Prerequisite: None**

CULINARY ARTS I and II prepare students for occupations and higher education programs of study related to the entire spectrum of careers in the food industry: including (but not limited to) food production and services; food science, dietetics, and nutrition; and hospitality and tourism. Instruction and intensive laboratory experiences may include commercial applications of principles of nutritious, aesthetic, and sanitary selection, purchasing, storage, preparation, and service of food and food products; using and maintaining related tools and equipment; managing operations in food service, food science, or hospitality establishments; providing for the dietary needs of persons with special requirements; related research, development, and testing. Intensive laboratory experiences with commercial application are a required component of this course of study. Student laboratory experiences may be either school-based or "on-the-job" or a combination of the two.

**5620/5624 Diesel Service Technology I & II****Grades: 11-12****Prerequisite: None**

DIESEL SERVICE TECHNOLOGY I and II include classroom and laboratory experiences concerned with all phases of repair work on diesel engines used to power buses, ships, trucks, railroad trains, electrical generators, construction machinery, and similar equipment. Instruction and practice is provided in the diagnostics and repair of engines, brakes, electrical/electronic systems, suspension and steering. Students will demonstrate performance of these tasks as defined by ASE/NATEF standards. Use of technical manuals, hand and power tools and of testing and diagnostic equipment are also studied in the course. Advanced mathematical skills will be reinforced through precision measuring activities and estimation/calculation exercises. Scientific principles covered in this course include viscosity, friction, thermal expansion, and compound solutions. Written and oral communication skills will also be stressed to improve students' abilities to work with colleagues, customers, and supervisors.

**VO316 Drafting and Computer Aided Design****Grades: 11-12****Prerequisite: None**

DRAFTING AND COMPUTER AIDED DESIGN (CAD) I and II emphasize the theory and application of drafting principles used to create detailed drawings according to exact project dimensions and specifications. Instruction includes experiences in gathering and translating realistic project data or specifications, completion of two- and three-dimensional drawings, and the development of computer models. Instruction will reinforce and expand students' mathematical skills through the study of geometric tolerancing and construction and the use of geometry and trigonometry principles in design projects and laboratory activities. Students will also enhance their reading and comprehension skills through daily use of technical software manuals. The techniques learned, and software used, should be state of the art and reflect current industry standards.

**4830/4832 Electricity/Residential and Industrial Technology****Grades: 11-12****Prerequisite: None**

ELECTRICITY/RESIDENTIAL and INDUSTRIAL TECHNOLOGY I and II include classroom and laboratory experiences that incorporate training in the areas of residential wiring, commercial/industrial wiring, and electric motors/controls. All instructional practices are based on the National Electric Code. Subject matter will include experiences that incorporates theory and laboratory work as it relates to planning functions; generating and transmitting electricity; and installing and maintaining electrical and communication systems, equipment and components. Instruction will emphasize application of mathematics, the sciences, circuit diagrams and blue print reading in addition to subject matter essential to preparation for employment in the electrical occupations.

**5572 Graphic Communication/Printing/Digital Media Technology****Grades: 11-12****Prerequisite: None**

GRAPHIC COMMUNICATIONS/PRINTING/DIGITAL MEDIA TECHNOLOGY I and II will include organized learning experiences that focus on theory and laboratory activities in pre-press, press and finishing operations. Emphasis will be placed on elements of design and layout leading to computerized electronic image generation, plate preparation, pressroom operations, and finishing techniques. Instructional activities will enhance students' language arts skills through the use of proofreading, spelling, and punctuation exercises. The course will include actual production processes in conjunction with classroom assignments embracing the technologies of printing, publishing, packaging, electronic imaging, and their allied industries.

**5282/5284 Health Sciences I & II****Grades: 11-12****Prerequisite: None**

HEALTH SCIENCES I content includes a core of entry-level skills common to one specific health career such as patient nursing care, dental care, animal care, medical laboratory, and public health. Course content includes an introduction to health care systems, anatomy, physiology, and medical terminology. Also, included are leadership skills developed through membership in the student youth organization, Health Occupations Students of America. During the second semester, instruction is integrated with core entry-level skills. The concept of coping with illness is also introduced. In addition, this course includes work ethics and job seeking skills such as job applications, resumes, and interviews. An in-school laboratory provides hands-on, simulated experiences. An extended laboratory experience may also be used as a method of providing clinical exposure to the actual health care work setting.

In the extended laboratory, students have the opportunity to develop basic job skills in a clinical setting. It is an extension of the in-school laboratory. The instructor and the students should move from the local school to the actual health care clinical setting for pre-planned, educational experiences, which are to be coordinated and evaluated by the school. The pre-planned activities provide an opportunity for the students to apply the knowledge, skills, and attitudes learned in the classroom. Actual instruction and supervision, usually provided on a one-to-one basis, is given by qualified health practitioners in the clinical setting, based on pre-determined specific learning competencies. Simulated in-school laboratory experiences are also a part of this course.

Continued on next page

An extended laboratory experience may also be scheduled. The related experience is organized and planned around the activities associated with both the student's individual placement and the student's career objectives in health occupations. It is taught during the same semesters that students are receiving clinical experience. Students are encouraged to participate in competitive events at both the state and national level with leadership skills developed through Health Occupations Students of America participation.

**5496/5498 Heating, Ventilation, A/C and Refrigeration Technology I & II      Grades: 11-12**  
**Prerequisite: None**

HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION TECHNOLOGY I and II provide students with classroom and laboratory experiences concerned with heat generation, ventilation, air conditioning and cooling/refrigeration systems. Instruction emphasizes proficiency in the design, development, testing and installation of the various systems with learning experiences focused on the operation and trouble-shooting of equipment, including the controls needed for residential and commercial use. Course content also includes instruction in blueprint reading, the use of technical reference manuals, the diagnosis and repair of malfunctions, and the use of hand tools and machines to fabricate sheet metal items made of steel, copper, stainless steel, and aluminum. Daily emphasis will be placed on students' abilities to calculate area, volume, air flow, and resistance. Estimation and algebra skills as well as scientific principles related to gases, liquids, and other materials will be reinforced through laboratory activities.

**5686/5688 Industrial Technical Maintenance      Grades: 11-12**  
**Prerequisite: None**

INDUSTRIAL REPAIR, MAINTENANCE, AND PLASTICS TECHNOLOGY I and II include classroom and practical experiences that prepare students to apply technical knowledge and skills to repair and maintain industrial machinery and equipment. Instructional activities develop diagnostic and problem-solving skills related to electric circuits, wiring, motors, robotics, hydraulics, and pneumatics. Additional areas of instruction will include plumbing, rigging, basic machining, and welding and cutting. Plastics encompasses classroom and laboratory experiences dealing with the properties and characteristics of plastics and polymers. Activities include bench molding, fitting, internal carving, and finishing plastics and fiberglass materials into products. Instruction trains students in the use of hand and power tools as well as the manufacturing processes and equipment that reflect current industry practices.

**5782/5784 Precision Machine Technology      Grades: 11-12**  
**Prerequisite: None**

PRECISION MACHINE TECHNOLOGY I and II include a wide range of classroom and laboratory experiences that develop skills and knowledge in the shaping of metal parts. Emphasis is placed on basic precision machining operations including the use of lathes, drill presses, and grinders, in addition to mill and bench work. Instruction includes the use and care of other precision tools such as micrometers, indicators, combination squares, scales, and calipers. Advanced instruction will include preparation in the use of Computer Numerically Controlled (CNC) machines that reflect current industry practices. Application of mathematical skills and blue print reading is part of the daily experience. Technical reading and writing skills will also be emphasized.

**VO375      Public Safety/Law Enforcement/EMT/Fire Science/Homeland Security      Grade: 12**  
**Prerequisite: None**

PUBLIC SAFETY incorporates into the curriculum fire science, law enforcement, homeland security, and emergency medical technician requirements. Students will learn the chemistry of fire, the use of various materials to fight fires and the use of fire fighting equipment. They will learn investigation techniques and methods designed to ensure community safety.

Law enforcement includes specialized classroom and practical experiences related to public safety operations. Training is based on standards and content similar to that provided by law enforcement agencies. Students who complete this course will earn six hours of college credit from IVY Tech and may apply for an additional six hours of dual credit.

**Prerequisite: None**

RADIO/TV BROADCASTING/TELECOMMUNICATIONS I and II will provide instruction to develop and enhance competencies in various communication, marketing, media, production, and technical functions and tasks performed by employees, including management personnel, in radio/TV broadcasting and telecommunications occupations. Emphasis will be placed on career opportunities, production, programming, announcing, broadcast equipment operation, news and sports casting, broadcast regulations and laws, station organization, technical, oral/written communication, and listening skills. Instructional strategies may include a school-based enterprise, real and/or simulated occupational experiences, such as the operation of an in-school radio, television, telecommunications, or distance learning studio; job shadowing; field trips; and internships.

**5776/5778 Welding Technology****Grades: 11-12****Prerequisite: None**

WELDING TECHNOLOGY I and II include classroom and laboratory experiences that develop a variety of skills detailed in American Welding Society (AWS) Entry Level Guidelines and Certifications. Areas of study include electric welding and flame and plasma cutting. Instructional activities emphasize properties of metals, safety issues, blueprint reading, electrical principles, welding symbols, and mechanical drawing through projects and exercises that teach students how to weld industrial metals in four basic welding positions. Reinforcement of mathematical skills in geometry, precision measurement, and estimation will be part of the daily instruction. Understanding the principles of metallurgy, gases, and materials science is integral to this course.

## ***Indiana Career Clusters***

**1. AGRICULTURE AND NATURAL RESOURCES**

Occupations within this cluster include farming, fish and wildlife management, food science and food processing, animal training, garden and landscape services, conservation work, and timber harvesting.

**2. ARTS, MEDIA AND COMMUNICATIONS**

Occupations within this cluster include arts and crafts, dance, music, dramatic arts, photography, interior design, landscape architecture, literature and foreign languages, library science, and liberal arts and humanities.

**3. ENGINEERING, SCIENCE AND TECHNOLOGIES**

Occupations within this cluster include all engineering occupations such as agriculture, marine, aeronautical, metallurgical, chemical, civil, electrical, industrial, mechanical, mining, nuclear and petroleum engineering, all engineering technology occupations such as industrial engineering technology, communications, electronics, and drafting, natural sciences/technology group such as life sciences, biology, medical sciences, physics, astronomy, space or atmospheric sciences, chemistry, earth science, water and waste treatment, nuclear technology, and biological and agricultural technology, quantitative research occupations such as mathematics, actuarial science, business research, and computer systems occupations.

**4. MANUFACTURING AND PROCESSING**

Occupations within this cluster include printing and publishing occupations such as photographic processing, printing, typesetting and composing, lithography and plate making, printing press operation, and desktop publishing equipment operation, metal and plastic production/processing occupations such as welding, metal machining, tool and die making, and metal fabrication, and other production occupations such as orthotics/prosthetics, optical technology, quality control, clothing production, tailoring, home furnishing, upholstering, leather work, shoemaking and repair, woodworking, line supervision, and power plant operation.

## **5. MECHANICAL REPAIR AND PRECISION CRAFTS**

Occupations within this cluster include appliance and light equipment/instrument repair occupations such as electromechanical equipment repair or production, air conditioning/heating installation and repair, appliance/equipment repair, computer and business machine repair or production, musical instrument repair, jewelry and watch repair, medical equipment repair, and building maintenance, and engine and heavy equipment repair such as automobile mechanics, aircraft mechanics, agricultural mechanics, heavy equipment repair, auto body repair, diesel or small engine repair, and bicycle repair.

## **6. BUSINESS, MANAGEMENT AND FINANCE**

Occupations within this cluster include food service and lodging management, public administration, medical services management, business management and administration, personnel management, accounting and financial management, securities sales, stenography, secretarial, legal secretary, medical records health unit coordinating, bookkeeping, office clerical, data entry, banking support services, and computer operations.

## **7. BUILDING AND CONSTRUCTION**

Occupations within this cluster include bricklaying, carpentry, electrical power, general construction, painting and wallpapering, plumbing, and construction equipment operation.

## **8. EDUCATIONAL SERVICES**

Occupations within this cluster include educational administration, special education, teaching assisting, elementary education, preschool education, instructional design, adult education and continuing education, and secondary and vocational education.

## **9. HEALTH SERVICES**

Occupations within this cluster include all health diagnosis and treatment occupations such as speech pathology, dentistry, physician assisting, medicine, nursing, optometry, podiatry, and veterinary medicine, dental hygiene, cardiology and laboratory technology, emergency medical technology, radiological technology, surgical technology, other medical technologies, occupational therapy, physical therapy, respiratory therapy, health assisting occupations, pharmacy, and optical dispensing.

## **10. PERSONAL AND COMMERCIAL SERVICES**

Occupations within this cluster include barbering, cosmetology, funeral services, child care, home assisting, travel services, flight attending, laundry and dry cleaning, housekeeping/building services, food service, bartending, waiter/waitress, dietetics/nutrition, baking, chef, and butchering.

## **11. LEGAL, SOCIAL AND RECREATION SERVICES**

Occupations within this cluster include legal services, counseling, psychology, social work, recreation, religious education, religion, urban and regional planning, and economics.

## **12. PROTECTIVE SERVICES**

Occupations within this cluster include law enforcement, security services, and fire safety.

## **13. MARKETING, SALES AND PROMOTION**

Occupations within this cluster include marketing, advertising, public relations, real estate sales, fashion merchandising, sales, food marketing, purchasing, insurance, and automobile sales/service.

## **14. TRANSPORTATION**

Occupations within this cluster include truck and bus driving, airplane piloting, air traffic control, and water transportation.

## ***Policies***

### **ISTEP+ Graduation Requirement:**

To earn a South Spencer High School Diploma a student must complete the minimum graduation requirements and have above standard scores on both the English and Math sections of the ISTEP+ Graduation Qualifying Exam (GQE Class of 2018, 17, 16...). The graduation test requirement changes to a 10th grade exam - ISTEP+, beginning with the Class of 2019.

Students who complete the minimum requirements but do not score above standard on one or both sections of the GQE may participate in the graduation ceremony and will receive a Certificate of Completion instead of a South Spencer High School Diploma.

Students who are in the Special Education program and not on a diploma track, but who meet the requirements set forth by the IEP conference committee, will receive a Certificate of Completion.

Students who do not meet the standards on the GQE, but meet the following requirements, may appeal to the high school Principal for a waiver to graduate with a diploma:

- Take the GQE in each subject area in which the student did not receive a passing score at least one time every school year after the school year in which the student first takes the GQE.
- Complete remediation opportunities provided by the high school.
- Have a cumulative attendance rate of 95% or better excluding excused absences.
- Maintain at least a "C" average (1.5-2.49) in the core courses that make up the minimum graduation requirement for South Spencer High School. These courses are listed in the South Spencer High School Course Descriptions & Curriculum Guide booklet provided to the student each year.
- Obtain a written recommendation from a teacher of the student in each subject area in which the student has not achieved a passing score on the GQE. The recommendation must: Be concurred with by the principal; and be supported by documentation that the student has attained Grade 9 proficiency in the subject area based upon: tests other than the GQE, or classroom work.
- Complete all components of the Core 40 curriculum with a "C: (C+, C, C-) or higher in all required and directed elective courses. These components are also listed in the South Spencer High School Course Descriptions.

### **Advanced Placement Exam Policy:**

Successful completion of Advanced Placement courses includes taking the AP Exam. At the beginning of each AP course students will receive information about the exam, including costs and procedures to apply for fee reductions.

## ***Grading***

The grading scale used by the classroom teachers is as follows:

A	93.0-100
A-	90.0-92.9
B+	87.0-89.9
B	83.0-86.9
B-	80.0-82.9
C+	77.0-79.9
C	73.0-76.9
C-	70.0-72.9
D+	67.0-69.9
D	63.0-66.9
D-	60.0-62.9
F	0-59.9

Grade Point Averages are calculated using Quarter grades only. To calculate GPA multiply the Grade Points earned for a course by the Credits Earned, then divide the total Grade Points (all classes) by the total Credits Attempted (all classes).

<b>11 Point Scale</b>		<b>Weighted Scale</b>	
A	4	A	5
A-	3.667	A-	4.667
B+	3.333	B+	4.333
B	3	B	4
B-	2.667	B-	3.667
C+	2.333	C+	3.333
C	2	C	3
C-	1.667	C-	2.667
D+	1.333	D+	2.333
D	1	D	2
D-	0.667	D-	1.667
F	0	F	0