

# Rensselaer Central High School Titles and Descriptions

2019-2020 School Year



Indiana Department of Education  
High School  
College and Career Readiness  
Course Titles and Descriptions  
2019-2020 Edition

# Table of Contents

Advanced College Credit.....	50
Advanced Placement (AP).....	45
Career & Technical Education (CTE).....	2
CTE: Agriculture.....	3
CTE: Business, Marketing and Information Technology.....	6
CTE: Engineering/Technology.....	10
CTE: Family & Consumer Sciences.....	15
CTE: Health Sciences.....	26
CTE: Trade and Industry.....	39
CTE: Work Based Learning.....	9
English/Language Arts.....	13
Fine Arts.....	18
Health and Wellness.....	23
Mathematics.....	28
Multidisciplinary.....	32
Physical Education.....	24
Quantitative Courses.....	53
Science.....	33
Social Studies.....	36
World Language.....	43

## **CAREER AND TECHNICAL EDUCATION (CTE) INTRODUCTION**

Career and Technical Education (CTE) course titles and descriptions are included in this document under the primary CTE subject area headings of:

### Career and Technical Education (CTE)

- CTE: Agriculture
- CTE: Business, Marketing and IT
- CTE: Engineering/Technology
- CTE: Family and Consumer Sciences
- CTE: Health Science
- CTE: Trade and Industry
- CTE: Work Based Learning

# CTE: AGRICULTURAL

## ADVANCED LIFE SCIENCE: ANIMALS (L) (ALS ANIML)

5070

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

- Recommended Grade Level: 11, 12
- Required Prerequisite: Animal Science
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources, Biology, Chemistry, Integrated Chemistry Physics
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as an Elective or Directed Elective for all diplomas
- Fulfills a Core 40 Science requirement for all diplomas
- Qualifies as a quantitative reasoning course

## AGRIBUSINESS MANAGEMENT (AG BUS MGMT)

5002

Agribusiness Management provides foundation concepts in agricultural business. It is a two semester course that introduces students to the principles of business organization and management from a local and global perspective, with the utilization of technology. Concepts covered in the course include; accounting and record keeping, business planning and management, food and fiber, forms of business, finance, management, sales and marketing, careers, leadership development. Students will demonstrate principles and techniques for planning, development, application and management of agribusiness systems through a supervised agriculture experience (work based learning) programs.

- Recommended Grade Level: 11, 12
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as an Elective or Directed Elective for all diplomas
- Qualifies as a quantitative reasoning course

## ANIMAL SCIENCE (ANML SCI)

5008

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

nutrition, reproduction, careers, leadership, and supervised agriculture experiences relating to animal agriculture.

- Recommended Grade Level: 10, 11
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a science course requirement for all diplomas

### **INTRODUCTION TO AGRICULTURE, FOOD AND NATURAL RESOURCES**

**5056** (INT AGFNR)

Introduction to Agriculture, Food and Natural Resources is a two semester course that is highly recommended as a prerequisite to and as 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. An activity and project based approach is used along with team building to enhance the effectiveness of the student learning activities.

- Recommended Grade Level: 9
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

### **NATURAL RESOURCES**

**5180** (NAT RSS)

Natural Resources is a two semester course that provides students with a background in environmental science and conservation. Course work includes hands-on learning activities that encourage students to investigate areas of environmental concern. Students are introduced to the following areas of natural resources: soils, the water cycle, air quality, outdoor recreation, forestry, minerals, interrelationships between humans and natural systems, wetlands, wildlife, safety, careers, leadership, and supervised agricultural experience programs.

- Recommended Grade Level: 10, 11
- Recommended Prerequisites: Introduction to Agriculture, Food and Natural Resources
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Fulfills a science course requirement for all diplomas
- Counts as a Directed Elective or Elective for all diplomas

### **SUPERVISED AGRICULTURAL EXPERIENCE**

**5228** (SAE)

Supervised Agricultural Experience (SAE) is designed to provide students with opportunities to gain experience in the agriculture field(s) in which they are interested. Students will experience and apply what is learned in the classroom, laboratory and training site to real-life situations with a standards-based plan for learning. Students work closely with their agriculture teacher(s), parents and/or

employers to get the most out of their SAE program. This course can be offered each year as well as during the summer session. Curriculum content and competencies need to be varied so that school year and summer session experiences are not duplicative.

- Recommended Grade Levels: 10, 11, 12
- Recommended Prerequisite: Introduction to Agriculture, Food and Natural Resources
- Credits: 1 semester course, 1 credit per semester, 8 credits maximum
- Curriculum content and standards-based plan for learning should not be duplicated when this course is taken for multiple semesters.

# **CTE: BUSINESS, MARKETING, AND INFORMATION TECHNOLOGY ENTREPRENEURSHIP**

## **BUSINESS MATH (BUS MATH)**

**4512**

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

- Recommended Grade Level: 10,11
- Prerequisites: Algebra I
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as an Elective or Directed Elective for all diplomas
- Fulfills a Mathematics requirement for the General Diploma or Certificate of Completion only
- Qualifies as a quantitative reasoning course

## **DIGITAL APPLICATIONS AND RESPONSIBILITY (DIG APPS RESP)**

**4528**

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.

- Recommended Grade Level: 9, 10, 11, 12
- Recommended Prerequisites: None
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

## **INTRODUCTION TO BUSINESS (INTO BUSS)**

**4518**

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

- Recommended Grade Level: 9,10
- Recommended Prerequisites: None
- Credits: 1 to 2 semester course, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

### **INTRODUCTION TO ACCOUNTING**

**4524**

(INTO ACC)

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

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

### **PERSONAL FINANCIAL RESPONSIBILITY**

**4540**

(PRS FIN RSP)

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

- Recommended Grade Level: 10, 11,12
- Recommended Prerequisites: None
- Credits: 1 semester course, 1 credit per semester, 1 credit maximum
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as a quantitative reasoning course

### **PRINCIPLES OF MARKETING**

**5914**

(PRN MRKT)

Principles of Marketing provides a basic introduction to the scope and importance of marketing in the global economy. Emphasis is placed on oral and written communications, mathematical applications, problem-solving, and critical thinking skills as they relate to advertising/promotion/selling, distribution, financing, marketing-information management, pricing, and product/service management.

- Recommended Grade Level: 11,12
- Recommended Prerequisites: None
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

## **SPORTS AND ENTERTAINMENT MARKETING**

**5984**

**(SPRT ENT MRK)**

Sports and Entertainment Marketing is a specialized marketing course that develops student understanding of the sport/event industries, their economic impact, and products; distribution systems and strategies; pricing considerations; product/service management, and promotion. Students acquire an understanding and appreciation for planning. Throughout the course, students are presented problem-solving situations for which they must apply academic and critical-thinking skills. Participation in cooperative education is an optional instructional method, giving students the opportunity to apply newly acquired marketing skills in the workplace.

- Recommended Grade Level: 11,12
- Required Prerequisites: Principles of Marketing
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

## **COMPUTER SCIENCE I**

**4801**

**(COM SCI I)**

Computer Science I 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, pseudo coding, and hierarchy charts as a means of solving problems. The course covers creating file layouts, print charts, program narratives, user documentation, and system flowcharts for business problems; algorithm development and review, flowcharting, input/output techniques, looping, modules, selection structures, file handling, control breaks, and offers students an opportunity to apply skills in a laboratory environment.

- Recommended Grade Level: 10, 11,12
- Required Prerequisites: Introduction to Computer Science or teacher confirmation of student demonstration of mastery of the Intro to Computer Science standards
- Credits: 2 semester course, 2 semesters required, 1-3 credit per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a science course requirement for all diplomas
- Qualifies as a quantitative reasoning course

# CTE: Work Based Learning

## ICE - INTERDISCIPLINARY COOPERATIVE EDUCATION (ICE)

5902

Interdisciplinary Cooperative Education (ICE) spans all career and technical education program areas through an interdisciplinary approach to training for employment. Time allocations are a minimum of fifteen hours per week of work based learning and approximately five hours per week of school-based instruction. Additionally, all state and federal laws and regulations related to student employment and cooperative education must be followed. The following two components must be included as part of the Interdisciplinary Cooperative Education course.

**Related Instruction**, that is classroom based, shall be organized and planned around the activities associated with the student's individual job and career objectives in a career cluster area/pathway; and shall be taught during the same semesters as the student is receiving on-the-job training. For a student to become occupationally competent and therefore employable, the related instruction should cover in varying proportions: (a) general occupational competencies, (b) specific occupational competencies, and (c) specific job competencies.

**On-the-Job Training** is the actual work experience in an occupation in any one of the Indiana College and Career Pathways that relates directly to the student's career objectives. On-the-job, the student shall have the opportunity to apply the concepts, skills, and attitudes learned during Related Instruction, as well as the skills and knowledge that have been learned in other courses. The student shall be placed on-the-job under the direct supervision of experienced employees who serve as on-the-job trainers/supervisors in accordance with predetermined training plans and agreements and who assist in evaluating the student's job performance. Students in an ICE placement must be paid in accordance with federal and state student employment and cooperative education laws.

- Recommended Grade Level:12
- Required Prerequisite: a minimum of 4 credits in a logical sequence of courses related to the student's pathway and the work site placement
- Credits: 2 semester course, 2 semesters required, 3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

# CTE: ENGINEERING/TECHNOLOGY

## CIVIL ENGINEERING AND ARCHITECTURE

4820 PLTW

(CEA)

5650 Non-PLTW

(CIVIL ENG)

Civil Engineering and Architecture introduces students to the fundamental design and development aspects of civil engineering and architectural planning activities. Application and design principles will be used in conjunction with mathematical and scientific knowledge. Computer software programs should allow students opportunities to design, simulate, and evaluate the construction of buildings and communities. During the planning and design phases, instructional emphasis should be placed on related transportation, water resource, and environmental issues. Activities should include the preparation of cost estimates as well as a review of regulatory procedures that would affect the project design. **NOTE: Use of the PLTW Course number is limited to schools that have agreed to be part of the Project Lead the Way network and follow all training and data collection requirements.**

- Recommended Grade Level: 11,12
- Recommended Prerequisites: Introduction to Engineering Design and Principles of Engineering
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as a quantitative reasoning course

## ENGINEERING DESIGN AND DEVELOPMENT

4828 PLTW

(EDD)

5698 non-PLTW

(ENG DES DEV)

Engineering Design and Development is an engineering research course in which students work in teams to research, design, test, and construct a solution to an open-ended engineering problem. The product development life cycle and a design process are used to guide the team to reach a solution to the problem. The team/ and or individuals communicates their solution to a panel of stakeholders at the conclusion of the course. As the capstone course in the Engineering Pathway, EDD engages students in critical thinking, problem-solving, time management, and teamwork skills. **NOTE: Use of the PLTW Course number is limited to schools that have agreed to be part of the Project Lead the Way network and follow all training and data collection requirements.**

- Recommended Grade Level:12
- Recommended Prerequisites: Introduction to Engineering Design, Principles of Engineering Design, and one pre-engineering specialty course
- Credits: 2 semester course, 2 semesters required, 1-3s credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as a quantitative reasoning course

## INTRODUCTION TO CONSTRUCTION (INT CONST)

4792

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

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

## INTRODUCTION TO ENGINEERING DESIGN (IED)

4812 PLTW

Introduction to Engineering Design is a fundamental pre-engineering course where students become familiar with the engineering design process. Students work both individually and in teams to design solutions to a variety of problems using industry standard sketches and current 3D design and modeling software to represent and communicate solutions. Students apply their knowledge through hands-on projects and document their work with the use of an engineering notebook. Students begin with completing structured activities and move to solving open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills. Ethical issues related to professional practice and product development are also presented. **NOTE: Use of the PLTW Course number is limited to schools that have agreed to be part of the Project Lead the Way network and follow all training and data collection requirements.**

- Recommended Grade Level:9
- Recommended Prerequisites: none
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

## INTRODUCTION TO TRANSPORTATION (INT TRANS)

4798

Introduction to Transportation is an introductory course designed to help students become familiar with fundamental principles in modes of land, sea, air, and space transportation, including basic mechanical skills and processes involved in transportation of people, cargo, and goods. Students will gain and apply knowledge and skills in the safe application, design, production, and assessment of products, services, and systems as it relates to the transportation industries. Content of this

course includes the study of how transportation impacts individuals, society, and the environment. This course allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant transportation related activities, problems, and settings.

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

## **PRINCIPLES OF ENGINEERING**

**4814** PLTW

(POE)

**5644** non-PLTW

(PRNC ENG)

Principles of Engineering is a course that focuses on the process of applying engineering, technological, scientific and mathematical principles in the design, production, and operation of products, structures, and systems. This is a hands-on course designed to provide students interested in engineering careers to explore experiences related to specialized fields such as civil, mechanical, and materials engineering. Students will engage in research, development, planning, design, production, and project management to simulate a career in engineering. The topics of ethics and the impacts of engineering decisions are also addressed. Classroom activities are organized to allow students to work in teams and use modern technological processes, computers, CAD software, and production systems in developing and presenting solutions to engineering problems. **NOTE: Use of the PLTW Course number is limited to schools that have agreed to be part of the Project Lead the Way network and follow all training and data collection requirements.**

- Recommended Grade Level: 10,11
- Required Prerequisites: Introduction to Engineering Design
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a science course requirement for all diplomas
- Qualifies as a quantitative reasoning course

# ENGLISH/LANGUAGE ARTS

## ENGLISH 9 (ENG 9)

1002

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

- Recommended Grade Level:9
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

## ENGLISH 10 (ENG 10)

1004

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

- Recommended Grade Level:10
- Recommended Prerequisites: English 9 or teacher recommendation
- Credits: 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

## ENGLISH 11 (ENG 11)

1006

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

deliver grade-appropriate multimedia presentations and access, analyze, and evaluate online information.

- Recommended Grade Level: 11
- Recommended Prerequisites: English 9 and English 10 or teacher recommendation
- Credits: 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

## **ENGLISH 12** (ENG 12)

**1008**

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

- Recommended Grade Level: 12
- Recommended Prerequisites: English 9, English 10, and English 11 or teacher recommendation
- Credits: 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

## **SPEECH** (SPEECH)

**1076**

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

- Recommended Grade Level: 9, 10, 11, 12
- Recommended Prerequisites: None
- Credits: 1 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for all diplomas

# **CTE: FAMILY AND CONSUMER SCIENCES**

## **ADVANCED CHILD DEVELOPMENT (ADVCHLDDEV)**

**5360**

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

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

## **ADVANCED NUTRITION AND WELLNESS (ADV NTRN WEL)**

**5340**

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

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

**CHILD DEVELOPMENT**  
(CHLD DEV)

**5362**

Child Development is an introductory course for all students as a life foundation and academic enrichment; it is especially relevant for students interested in careers that draw on knowledge of children, child development, and nurturing of children. This course addresses issues of child development from conception/prenatal through age 3. It includes the study of prenatal development and birth; growth and development of children; child care giving and nurturing; and support systems for parents and caregivers. A project-based approach that utilizes higher order thinking, communication, leadership, management processes, and fundamentals to college and career success is recommended in order to integrate these topics into the study of child development. Direct, concrete mathematics and language arts proficiencies will be applied. Authentic applications such as introductory laboratory/field experiences with young children and/or service learning that build knowledge of children, child development, and nurturing of children are strongly recommended. This course provides the foundation for continuing and post-secondary education in all career areas related to children, child development, and nurturing of children.

- Recommended Grade Level: 10, 11,12
- Recommended Prerequisites: none
- Credits: 1 credit per semester, 1 credit maximum
- Qualifies as one of the F&CS courses a student can take to waive the Health & Wellness graduation requirement. To qualify for the Health and Wellness waiver, a student must take three of the approved courses. For more information, see 511 IAC6-7.1-4(c)(6).
- Counts as a Directed Elective or Elective for all diplomas

**EDUCATION PROFESSIONS I**  
(ED PROF I)

**5408**

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

- Recommended Grade Level:11,12
- Required Prerequisites: Advance Child Development
- Recommended Prerequisites: Nutrition and Wellness, Child Development, and Interpersonal Relationships, GPA=2.3 on 4 scale, no suspensions, 5 or less absences their junior year.
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

## **EDUCATION PROFESSIONS II** (ED PROFII)

**5404**

Education Professions II prepares students for employment in education and related careers and provides the foundation for study in higher education in these career areas. An active 101 Indiana Department of Education High School Course Titles and Descriptions learning approach that utilizes higher order thinking, communication, leadership, and management processes is recommended in order to integrate suggested topics into the study of education and related careers. The course of study includes, but is not limited to: the teaching profession, the learner and the learning process, planning instruction, learning environment, and instructional and assessment strategies. Extensive field experiences in one or more classroom settings, resumes, and career portfolios are required components. A standards-based plan guides the students' field experiences. Students are monitored in their field experiences by the Education Professions II teacher. Articulation with post-secondary programs is encouraged.

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

## **NUTRITION AND WELLNESS** (NTRN WLNS)

**5342**

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

- Recommended Grade Level: 9,10
- Recommended Prerequisites: none
- Credits: 1 credit per semester, 1 credit maximum
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as one of the F&CS courses a student can take to waive the Health & Wellness graduation requirement. To qualify for the Health and Wellness waiver, a student must take three of the approved courses. For more information, see 511 IAC6-7.1-4(c)(6).
- Local programs have the option of offering a second version of the course that is focused more on the fitness aspects of wellness and nutrition. This version may be taught within the family and consumer sciences department or it may be interdisciplinary and team taught or co-taught with a teacher licensed in physical education. Such a course may be differentiated from the regular course offering by using a subtitle in addition to Nutrition and Wellness. A student may earn credits for multiple versions of the course. No waiver is required in this instance

# FINE ARTS

## **ADVANCED CHORUS (L) (Treble Choir)** (ADV CHOR)

**4188**

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

- Recommended Grade Level: 10, 11,12
- Recommended Prerequisites: Beginning and Intermediate Chorus
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a Directed Elective or Elective for all diplomas.
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

## **ADVANCED CONCERT BAND (L) (Band)** (ADV BAND)

**4170**

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

- Recommended Grade Level: 10, 11,12
- Recommended Prerequisites: Beginning and Intermediate Concert Band
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

**CHORAL CHAMBER ENSEMBLE (L) (Mixed Chorus)**  
**(CHRL ENSEM)**

**4180**

Choral Chamber Ensemble is based on the Indiana Academic Standards for High School Choral Music. Student musicianship and specific performance skills in this course are enhanced through specialized small group instruction. The activities expand the repertoire of a specific genre. Chamber ensemble classes provide instruction in creating, performing, listening to, and analyzing music in addition to focusing on specific subject matter. Students develop the ability to understand and convey the composer's intent in performance of music. Time outside of the school day may be scheduled for rehearsals and performances. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Students are required to participate in performance opportunities outside of the school day that support and extend learning in the classroom.

- Recommended Grade Level: 10, 11,12
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory course

**VOCAL JAZZ (L)**  
**(VOCJAZZ)**

**4184**

Vocal Jazz is based on the Indiana Academic Standards for High School Choral Music. Students in this course develop musicianship and specific performance skills through group and individual settings for the study and performance of varied styles of vocal jazz. Instruction includes the study of the history and formative and stylistic elements of jazz. Students develop their creative skills through improvisation, composition, arranging, performing, listening, and analyzing. Time outside of the school day may be scheduled for rehearsals and performances. A limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Students are required to participate in performance opportunities outside of the school day that support and extend learning in the class room.

- Recommended Grade Level: 10, 11,12
- Recommended Prerequisites:none
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

**JAZZ ENSEMBLE (L)**  
**(JAZZ ENS)**

**4164**

Jazz Ensemble is based on the Indiana Academic Standards for High School Instrumental Music. Students taking this course develop musicianship and specific performance skills through group and individual settings for the study and performance of varied styles of instrumental jazz. Instruction includes the study of the history, formative, and stylistic elements of jazz. Students develop their

creative skills through improvisation, composition, arranging, performing, listening, and analyzing. A limited amount of time outside of the school day may be scheduled for rehearsals and performances. In addition, a limited number of public performances may serve as a culmination of daily rehearsal and musical goals. Students must participate in performance opportunities outside of the school day that support and extend the learning in the classroom. Student participants must also be receiving instruction in another band or orchestra class offering at the discretion of the director.

- Recommended Grade Level: 10, 11,12
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills requirement for 1 of 2 Fine Arts credits for the Core 40 with Academic Honors Diploma if students are enrolled in another band or orchestra course
- Laboratory Course

### **ADVANCED THREE-DIMENSIONAL ART (L)**

**4006** (ADV 3D ART)

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

- Recommended Grade Level: 9, 10, 11, 12
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L), Introduction to Three-Dimensional Art(L)
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

### **ADVANCED TWO-DIMENSIONAL ART (L)**

**4004** (ADV 2D ART)

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

and discover opportunities for integration; and incorporate literacy and presentational skills. They identify ways to utilize and support art museums, galleries, studios, and community resources.

- Recommended Grade Level: 9, 10, 11, 12
- Recommended Prerequisites: Introduction to Two-Dimensional Art(L)
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

### **INTRODUCTION TO THREE-DIMENSIONAL ART (L)**

**4002**

**(3D ART)**

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

- Recommended Grade Level: 9, 10, 11, 12
- Recommended Prerequisites: Introduction to Two-Dimensional Art(L)
- Credits: 1 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

### **INTRODUCTION TO TWO-DIMENSIONAL ART (L)**

**4000**

**(2D ART)**

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

- Recommended Grade Level: 9, 10, 11, 12
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

**PAINTING (L)**  
(PAINTING)

**4064**

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

- Recommended Grade Level: 10, 11,12
- Recommended Prerequisites: Introduction to Two-Dimensional Art(L)
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized.
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

**CERAMICS (L)**  
(CERAMICS)

**4040**

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

- Recommended Grade Level: 10,11,12
- Recommended Prerequisites: Introduction to Two-Dimensional Art (L), Introduction to Three-Dimensional Art(L)
- Credits: 1 semester course, 1 credit per semester. The nature of this course allows for successive semesters of instruction at an advanced level provided that defined proficiencies and content standards are utilized
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Fine Arts requirement for the Core 40 Academic Honors Diploma
- Laboratory Course

# HEALTH AND WELLNESS

## HEALTH & WELLNESS EDUCATION (HLTH&WELL)

3506

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

- Recommended Grade Level: 9, 10, 11, 12
- Recommended Prerequisites: 8th grade health education
- Credits: 1 semester course, 1 credit per semester, 1 credit maximum
- Fulfills the Health and Wellness requirement for all diploma types

# PHYSICAL EDUCATION

## ELECTIVE PHYSICAL EDUCATION (L) (ELECT PE)

3560

Elective Physical Education, a course based on selected standards from Indiana's Academic Standards for Physical Education, identifies what a student should know and be able to do as a result of a quality physical education program. The goal of a physically educated student is to maintain appropriate levels of cardio-respiratory endurance, muscular strength and endurance, flexibility, and body composition necessary for a healthy and productive life. Elective Physical Education promotes lifetime sport and recreational activities and provides an opportunity for an in-depth study in one or more specific areas. A minimum of two of the following activities should be included: team sports; dual sports activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance. This course includes the study of physical development concepts and principles of sport and exercise as well as opportunities to develop or refine skills and attitudes that promote lifelong fitness. Students have the opportunity to design and develop an appropriate personal fitness program that enables them to achieve a desired level of fitness. Ongoing assessment includes both written and performance-based skill evaluation. Individual assessments may be modified for individuals with disabilities, in addition to those with IEPs and 504 plans (e.g., chronic illnesses, temporary injuries, obesity, etc.). See 511 IAC 7-27-9, 7-27-11.

- Recommended Grade Level: 10, 11,12
- Recommended Prerequisites: Physical Education I and II
- Credits: 1 credit per semester, maximum of 8credits
- Counts as an Elective requirement for all diplomas
- The nature of this course allows for successive semesters of instruction provided defined proficiencies and content standards are utilized.
- Classes are co-educational unless the activity involves bodily contact or groupings based on an objective standard of individual performance developed and applied without regard to gender.

## PHYSICAL EDUCATION I (L) (PHYS ED)

3542

Physical Education I focuses on instructional strategies through a planned, sequential, and comprehensive physical education curriculum that provides students with opportunities to actively participate in at least four of the following: team sports; dual sport activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance, all of which are within the framework of the skills, knowledge and confidence needed by the student for a lifetime of healthful physical activity and fitness. Ongoing assessment includes both written and performance-based skill evaluation. Individual assessments may be modified for individuals with disabilities, in addition to those with IEPs and 504 plans (e.g., chronic illnesses, temporary injuries, obesity, etc.). See 511 IAC 7-27-9,7-27-11.

- Recommended Grade Level: 9, 10, 11,12
- Required Prerequisites: Grade 8 Physical Education
- Credits: 1 semester course, 1 credit per semester, 1 credit maximum
- Fulfills part of the Physical Education requirement for all diplomas
- Classes are co-educational unless the activity involves bodily contact or groupings based on an objective standard of individual performance developed and applied without regard to gender.

- Adapted physical education must be offered, as needed, in the least restricted environment and must be based upon an individual assessment.
- As a designated laboratory course, 25% of course time must be spent inactivity.

**PHYSICAL EDUCATION II (L)**  
(PHYS ED II)

**3544**

Physical Education II focuses on instructional strategies through a planned, sequential, and comprehensive physical education curriculum that provides students with opportunities to actively participate in four of the following areas that were not included in Physical Education I: team sports; dual sport activities; individual physical activities; outdoor pursuits; self-defense and martial arts; aquatics; gymnastics; and dance, all of which are within the framework of the skills, knowledge and confidence needed by the student for a lifetime of healthful physical activity and fitness. Ongoing assessment includes both written and performance-based skill evaluation. Individual assessments may be modified for individuals with disabilities, in addition to those with IEPs and 504 plans (e.g., chronic illnesses, temporary injuries, obesity, etc.). See 511 IAC 7-27-9, 7-27-11.

- Recommended Grade Level: 9, 10, 11, 12
- Required Prerequisites: Physical Education I
- Credits: 1 semester course, 1 credit per semester, 1 credit maximum
- Fulfills part of the Physical Education requirement for all diplomas
- Classes are co-educational unless the activity involves bodily contact or groupings based on an objective standard of individual performance developed and applied without regard to gender.
- Adapted physical education must be offered, as needed, in the least-restricted environment and must be based upon an individual assessment.
- As a designated laboratory course, 25% of course time must be spent inactivity.

# CTE: HEALTH SCIENCES

## ANATOMY AND PHYSIOLOGY

(A & P)

5276

Anatomy & Physiology is a course in which students investigate concepts related to Health Science, with emphasis on interdependence of systems and contributions of each system to the maintenance of a healthy body. It introduces students to the cell, which is the basic structural and functional unit of all organisms, and covers tissues, integumentary, skeletal, muscular, and nervous systems as an integrated unit. Through instruction, including laboratory activities, students apply concepts associated with Human Anatomy & Physiology. Students will understand the structure, organization and function of the various components of the healthy body in order to apply this knowledge in all health related fields.

- Recommended Grade Level: 11,12
- Recommended Prerequisites: Biology
- Credits: 1 semester, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a science course requirement for all diplomas

## HEALTH SCIENCE EDUCATION I

(HLTH ED I)

5282

Health Science Education I is a course designed to provide a foundation of skills development to specific health careers including; patient care, nursing care, dental care, animal care, medical laboratory, and public health. Students will also receive an introduction to healthcare systems, anatomy, physiology, and medical terminology. Laboratory experiences with industry applications are organized and planned around the activities associated with the student's career objectives. Job seeking and job maintenance skills, personal management skills, self-analysis to aid in career selection and completion of the application process for admission into a post-secondary program of their choice are also included in this course. Participation in HOSA encourages the development of leadership, communication and career related skills, and opportunities for community service.

- Recommended Grade Level:11
- Recommended Prerequisites: Introduction to Health Science Careers
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, maximum of 6credits
- Counts as a Directed Elective or Elective for all diplomas

## INTRODUCTION TO HEALTH SCIENCE CAREERS

(INTRO HSCAREERS)

5272

Introduction to Health Science Careers is an exploratory course designed to provide students with an opportunity to investigate all aspects of the health science industry. Students will receive an introduction to healthcare systems and examine a variety of pathways in health science, and reflect on their own knowledge, skills and interests, to begin to narrow the areas within health science they want to continue exploring, in preparation for further study in Health Science I

- Recommended Grade Level:10
- Recommended Prerequisites: Preparing for College and Careers

- Credits: 1 or 2 semester course, 1 credit per semester, maximum of 2credits.
- Counts as a Directed Elective or Elective for all diplomas

**MEDICAL TERMINOLOGY**  
(MED TERMS)

**5274**

Medical Terminology prepares students with language skills necessary for effective, independent use of health and medical reference materials. It includes the study of health and medical abbreviations, symbols, and Greek and Latin word part meanings, all taught within the context of body systems. This course builds skills in pronouncing, spelling, and defining new words encountered in verbal and written information in the healthcare industry. Students have the opportunity to acquire essential skills for accurate and logical communication, and interpretation of medical records. Emphasis is on forming a foundation of a medical vocabulary including; appropriate and accurate meaning, spelling, and pronunciation of medical terms, and abbreviations, signs, and symbols.

- Recommended Grade Level: 11,12
- Recommended Prerequisites: None
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, maximum of 2 credits
- Counts as a Directed Elective or Elective for all diplomas

# MATHEMATICS

## ALGEBRA I LAB (formerly Algebra Enrichment) (ALG I LAB)

2516

Algebra I Lab is a mathematics support course for Algebra I. Algebra I Lab is taken while students are concurrently enrolled in Algebra I. This 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 I Lab 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.

- Recommended Grade Level: 9, 10, 11,12
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- 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.**

## ALGEBRA I (ALG I)

2520

Algebra I formalizes and extends the mathematics students learned in the middle grades. Algebra I is made up of 6 strands: Real Numbers and Expressions; Functions; Linear Equations, Inequalities, and Functions; Systems of Equations and Inequalities; Quadratic and Exponential Equations and Functions; and Data Analysis and Statistics. These critical areas deepen and extend understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend. Students will also engage in methods for analyzing, solving, and using quadratic functions. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Grade Level: 9, 10, 11,12
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a Mathematics course for all diplomas
- Fulfills the Algebra I/Integrated Mathematics I requirement for all diplomas
- Students pursuing Core 40, Core 40 with Academic Honors, or Core 40 with Technical Honors diploma should receive credit for Algebra I by the end of Grade 9

## ALGEBRA II (ALG II)

2522

Algebra II builds on work with linear, quadratic, and exponential functions and allows for students to extend their repertoire of functions to include polynomial, rational, and radical functions. Students work closely with the expressions that define the functions, and continue to expand and hone their abilities to

model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. Algebra II is made up of seven strands: Complex Numbers and Expressions; Functions; Systems of Equations; Quadratic Equations and Functions; Exponential & Logarithmic Equations and Functions; Polynomial, Rational, and Other Equations and Functions; and Data Analysis, Statistics, and Probability. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

- Recommended Grade Level: 9, 10, 11,12
- Recommended Prerequisite: Algebra I
- Credits: 2 semester course, 1 credit per semester
- Counts as a Mathematics course for all diplomas
- Fulfills the Algebra II/Integrated Mathematics III requirement for all diplomas

**2524**

**ANALYTICAL ALGEBRA II**  
(ANA ALG)Analytical

Algebra II builds on previous work with linear, quadratic and exponential functions and extends to include polynomial, rational, radical, logarithmic, and other functions. Data analysis, statistics, and probability content should be included throughout the course, as students collect and use univariate and bivariate data to create and interpret mathematical models. Additionally, Analytical Algebra II should focus on the application of mathematics in various disciplines including business, finance, science, career and technical education, and social sciences, using technology to model real-world problems with various functions, using and translating between multiple representations. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. This course is not recommended for students interested in pursuing a STEM degree at a four-year institution; this course does not prepare students for PreCalculus/Trigonometry.

- Recommended Grade Level: 9, 10, 11, 12
- Recommended Prerequisite: Algebra I
- Credits: 2 semester course, 1 credit per semester
- Fulfills the Algebra II/Integrated Mathematics III requirement for all diplomas; if students use this course to fulfill this credit, the parent and student must sign a consent form notifying the parent and the student that enrollment in Analytical Algebra II may affect the student’s ability to attend a particular post-secondary educational institution or enroll in a particular course at a particular post-secondary educational institution because Analytical Algebra II may not align with academic requirements established by the post-secondary educational institution.

**GEOMETRY**  
(GEOM)

**2532**

Geometry formalizes and extends students’ geometric experiences from the middle grades. Students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. Seven critical areas comprise the Geometry course: Logic and Proofs; Points, Lines, Angles, and Planes; Triangles; Quadrilaterals and Other Polygons; Circles; Transformations; and Three-dimensional Solids. The eight Process Standards for Mathematics apply throughout the course. Together with the content standards, the Process Standards prescribe that

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

- Recommended Grade Level: 9, 10, 11,12
- Recommended Prerequisites: Algebra I
- Credits: 2 semester course, 1 credit per semester
- Counts as a Mathematics course for all diplomas
- Fulfills the Geometry/Integrated Mathematics II requirement for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas

## **PRE-CALCULUS (PRECAL)**

**2564**

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

- Recommended Grade Level: 9, 10, 11,12
- Recommended Prerequisite: Algebra II and Geometry or Integrated Mathematics III
- Credits: 1 semester course, 1 credit per semester
- Counts as a Mathematics course for all diplomas

## **TRIGONOMETRY (TRIG)**

**2566**

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

- Recommended Grade Level: 9, 10, 11,12
- Recommended Prerequisites: Algebra II and Geometry or Integrated Mathematics III
- Credits: 1 semester course, 1 credit per semester

- Student should not receive credit for both Trigonometry and Pre-Calculus/Trigonometry since they cover the same course content during one semester
- Counts as a Mathematics course for all diplomas

# MULTIDISCIPLINARY

## COLLEGE-ENTRANCE PREPARATION

(COL-ENTPREP)

0532

College-Entrance Preparation utilizes individual student score reports from the PSAT, PLAN, and/or ACCUPLACER to prepare students for the SAT, ACT, ACCUPLACER and/or Compass college readiness assessments. Based on student score reports, students will receive targeted 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. Teachers are encouraged to use a curriculum with longitudinal, successful results. Course may also include college selection and application units, to better prepare students for overall college-readiness. Being “college ready” means being prepared for any post-secondary education or training experience, including readiness for study at two-year and four-year institutions leading to a post-secondary credential (i.e., a certificate, license, Associate’s or Bachelor’s degree). 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.

- Recommended Grade Level: semester 1 –grade 11; semester 2 –grade10
- Recommended Prerequisite: Algebra II (or concurrent enrollment in Algebra II)
- Credits: 1 semester course, .5 to 1 credit per semester, 4 credits maximum
- The nature of this course allows for successive semesters of instruction provided progressively advanced proficiencies and content standards are utilized.
- Counts as an Elective credit for all diplomas.

## PREPARING FOR COLLEGE AND CAREERS

(PREP CC)

5394

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

- Recommended Grade Level:9
- Recommended Prerequisites: None
- Credits: 1 semester course, 1 credit per semester, 1 credit maximum
- Qualifies as one of the FACS courses a student can take to waive the Heath & Wellness graduation requirement. To qualify for a waiver, a student must take three of the approved courses. For more information, please see 511 IAC 6-7.1-4(c)(6).
- Counts as a Directed Elective or Elective for all diplomas

# SCIENCE

## ANATOMY AND PHYSIOLOGY

(A & P)

5276

Anatomy & Physiology is a course in which students investigate concepts related to Health Science, with emphasis on interdependence of systems and contributions of each system to the maintenance of a healthy body. It introduces students to the cell, which is the basic structural and functional unit of all organisms, and covers tissues, integument, skeleton, muscular and nervous systems as an integrated unit. Through instruction, including laboratory activities, students apply concepts associated with Human Anatomy & Physiology. Students will understand the structure, organization and function of the various components of the healthy body in order to apply this knowledge in all health related fields.

- Recommended Grade Level: 11,12
- Recommended Prerequisites: Biology
- Credits: 2 semester course, 2 semesters required, 1 credit per semester, 2 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a Core 40 Science course requirement for all diplomas

## BIOLOGY I (L)

(BIO I)

3024

Biology I is a 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.

- Recommended Grade Level: 10
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Fulfills the Biology requirement for all diplomas

## BIOLOGY II (L)

(BIO II)

3026

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

- Recommended Grade Level: 10,11
- Recommended Prerequisites: Biology I
- Credits: 2 semester course, 1 credit per semester
- Counts as an Elective for all diplomas
- Fulfills a science course requirement for all diplomas

**CHEMISTRY I (L)**  
(CHEM I)

**3064**

Chemistry I is a 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.

- Recommended Grade Level: 10, 11,12
- Recommended Prerequisite: Algebra II (can be taken concurrently)
- Credits: 2 semester course, 1 credit per semester
- Counts as an Elective for all diplomas
- Fulfills a science (physical) course requirement for all diplomas
- Qualifies as a quantitative reasoning course

**CHEMISTRY II (L)**  
(CHEM II)

**3066**

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

- Recommended Grade Level: 11,12
- Recommended Prerequisite: Chemistry I & Algebra II
- Credits: 2 semester course, 1 credit per semester
- Counts as an Elective for all diplomas
- Fulfills a science course requirement for all diplomas
- Qualifies as a quantitative reasoning course

**EARTH AND SPACE SCIENCE I (L)**  
(EAS SCI I)

**3044**

Earth and Space Science I is a course focused on the following core topics: universe; solar system; Earth cycles and systems; atmosphere and hydrosphere; solid Earth; Earth processes. Students analyze and describe earth's interconnected systems and examine how earth's materials, landforms, and continents are modified across geological time. 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.

- Recommended Grade Level: 9, 10, 11, 12
- Credits: 2 semester course, 1 credit per semester
- Counts as an Elective for all diplomas
- Fulfills a science course requirement for all diplomas

**3084**

**PHYSICS I (L)**  
**(PHYS I)**

Physics I is a course focused on the following core topics: constant velocity; constant acceleration; forces; energy; linear momentum in one dimension; simple harmonic oscillating systems; mechanical waves and sound; simple circuit analysis. 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.

- Recommended Grade Level: 9, 10,11
- Recommended Prerequisites: Algebra I or II
- Credits: 2 semester course, 1 credit per semester
- Counts as an Elective for all diplomas
- Fulfills a science (physical) course requirement for all diplomas
- Qualifies as a quantitative reasoning course

# SOCIAL STUDIES

## ECONOMICS (ECON)

**1514**

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

- Recommended Grade Level: Grades 11 or 12
- Recommended Prerequisites: None
- Credits: 1 semester course, 1 credit per semester
- Counts as an Elective for all diplomas
- Fulfills the Economics requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas
- Fulfills a Social Studies requirement for the General Diploma only
- Qualifies as a Quantitative Reasoning course

## ETHNIC STUDIES (ETH STUDIES)

**1516**

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.

- Recommended Grade Level: none
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit
- Counts as an Elective for all diplomas

## INDIANA STUDIES (IN STUDIES)

**1518**

Indiana Studies is an integrated course that compares and contrasts state and national developments in the areas of politics, economics, history, and culture. The course uses Indiana history as a basis for understanding current policies, practices, and state legislative procedures. It also includes the study of state and national constitutions from a historical perspective and as a current foundation of government. Examination of individual leaders and their roles in a democratic society will be included and 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.

- Recommended Grade Level: none
- Recommended Prerequisites: none

- Credits: 1 semester course, 1 credit per semester
- Counts as an Elective for all diplomas
- Must be offered at least once per school year

### **TOPICS IN HISTORY**

(TOP HIST)

1538

Topics in History provides students the opportunity to study specific historical eras, events, or concepts. Development of historical research skills using primary and secondary sources is emphasized. The course focuses on one or more topics or themes related to United States or world history. Examples of topics might include: (1) twentieth-century conflict, (2) the American West, (3) the history of the United States Constitution, and (4) democracy in history.

- Recommended Grade Level: 11, 12
- Recommended Prerequisites: United States History or History and World Civilizations
- Credits: 1 semester course, 1 credit per semester. This course may be repeated if the material in the course is different from one semester to the next. Topics in History can address different topics in World History or U.S. History.
- Counts as an Elective all diplomas

### **SOCIOLOGY**

(SOCIOLOGY)

1534

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

- Recommended Grade Level: 11, 12
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Counts as an Elective for all diplomas

### **UNITED STATES GOVERNMENT**

(US GOVT)

1540

United States Government provides a framework for understanding the purposes, principles, and practices of constitutional representative democracy in the United States. Responsible and effective participation of citizens is stressed. Students understand the nature of citizenship, politics, and governments and understand the rights and responsibilities of citizens and how these are part of local, state, and national government. Students examine how the United States Constitution protects rights and provides the structure and functions of various levels of government. Analysis of how the United States

interacts with other nations and the government's role in world affairs is included in this course. Using primary and secondary resources, students will articulate, evaluate, and defend positions on political issues. As a result, they will be able to explain the role of individuals and groups in government, politics, and civic activities and the need for civic and political engagement of citizens in the United States.

- Recommended Grade Level: 11,12
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per semester
- Fulfills the Government requirement for all diplomas

## **UNITED STATES HISTORY**

1542

(US HIST)

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

- Recommended Grade Level: none
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Fulfills the US History requirement for all diplomas

## **WORLD HISTORY AND CIVILIZATION**

1548

(WLD HST/CVL)

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

- Recommended Grade Level: 11, 12
- Recommended Prerequisites: none
- Credits: 1 semester course, 1 credit per
- Counts as an Elective for all diplomas
- Fulfills the Geography History of the World/World History and Civilization graduation requirement for all diplomas

# CTE: TRADE AND INDUSTRY

## AUTOMOTIVE SERVICES TECHNOLOGY I (AUTO TECH I)

**5510**

Automotive Services Technology I is a one year course that encompasses the sub topics of the NATEF/ASE identified areas of Steering & Suspension and Braking Systems. This one year course offering may be structured in a series of two topics per year offered in any combination of instructional strategies of semester based or yearlong instruction. Additional areas of manual transmissions and differentials, automatic transmissions, air conditioning, and engine repair should be covered as time permits. This one year offering must meet the NATEF program certifications for the two primary areas offered in this course. This course provides the opportunity for dual credit for students who meet post-secondary requirements for earning dual credit and successfully complete the dual credit requirements of this course. Mathematical skills will be reinforced through precision measuring activities as well as cost estimation and 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.

- Recommended Grade Level: 11,12
- Recommended Prerequisites: Introduction to Transportation
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

## AUTOMOTIVE SERVICES TECHNOLOGY II (AUTO TECH II)

**5546**

Automotive Services Technology II is a one year course that encompasses the sub topics of the NATEF/ASE identified areas of Electrical Systems and Engine Performance. This one year course offering may be structured in a series of two topics per year offered in any combination of instructional strategies of semester based or yearlong instruction. Additional areas of manual transmissions /differentials, automatic transmissions, air conditioning, and engine repair should be covered as time permits. This one-year offering must meet the NATEF program certifications for the two primary areas offered in this course. 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.

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

## **CONSTRUCTION TRADES I** (CONST TECH I)

**5580**

Construction Trades I classroom and laboratory experiences involve the formation, installation, maintenance, and repair of buildings, homes, and other structures. A history of construction, future trends and career options, reading technical drawings and transforming those drawings into physical structures are covered. The relationship of views and details, interpretation of dimension, transposing scale, tolerance, electrical symbols, sections, materials list, architectural plans, geometric construction, three dimensional drawing techniques, and sketching will be presented as well as elementary aspects of residential design and site work. Areas of emphasis will include print reading and drawing, room schedules and plot plans. Students will examine the design and construction of floor and wall systems and develop layout and floor construction skills. Blueprints and other professional planning documents will also be covered. Students will develop an understanding and interpretation of the Indiana Residential Code for one and two-family dwellings and safety practices including Occupational Safety and Health Administration Safety and Health Standards for the construction industry.

- Recommended Grade Level: 11, 12
- Recommended Prerequisites: Introduction to Construction
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

## **CONSTRUCTION TRADES II** (CONST TRA II)

**5578**

Construction Trades II builds on the formation, installation, maintenance, and repair skills learned in Construction Trades I. Information on materials, occupations, and professional organizations within the industry will be covered. Students will develop basic knowledge, skills, and awareness of interior trim and the installation of drywall, moldings, interior doors, kitchen cabinets, and baseboard moldings. Students will also develop exterior finishing competencies. The course includes instruction on the installation of cornices, windows, doors and various types of sidings currently used in industry. Studies will also focus on the design and construction of roof systems and the use of framing squares for traditional rafter and truss roofing.

- Recommended Grade Level: 12
- Required Prerequisites: Construction Trades I
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas
- Qualifies as a quantitative reasoning course.

## **COSMETOLOGY I** (CSMTLGY I)

**5802**

Cosmetology I offers an introduction to cosmetology with an emphasis on basic practical skills and theories including roller control, quick styling, shampooing, hair coloring, permanent waving, facials, manicuring, business and personal ethics, bacteriology, and sanitation. In the second semester greater emphasis is placed on the application and development of these skills. The State of Indiana requires a total of 1500 hours of instruction for licensure.

- Recommended Grade Level: 11,12
- Recommended Prerequisite: Interpersonal Relationships

- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as Directed Elective or Elective for all diplomas

## **COSMETOLOGY II** (CSMTLGYII)

**5806**

Cosmetology II builds on concepts learned in Cosmetology I with an emphasis on the development of advanced skills in styling, hair coloring, permanent waving, facials and manicuring. Students will also study anatomy and physiology, professionalism, and salon management in relation to cosmetology

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

## **CRIMINAL JUSTICE I** (CRIME I)

**5822**

Criminal Justice I Introduces specialized classroom and practical experiences related to public safety occupations such as law enforcement, loss prevention services, and homeland security. This course provides an introduction to the purposes, functions, and history of the three primary parts of the criminal justice system as well as an introduction to the investigative process. Oral and written communication skills should be reinforced through activities that model public relations and crime prevention efforts as well as the preparation of police reports. This course provides the opportunity for dual credit for students who meet post-secondary requirements for earning dual credit and successfully complete the dual credit requirements of this course.

- Recommended Grade Level: 11, 12
- Recommended Prerequisites: Interpersonal Relationships
- Credits: 2 semester course, 2 semesters required, 1-3 credits
- Counts as a Directed Elective or Elective for all diplomas

## **CRIMINAL JUSTICE II** (CRIME II)

**5824**

Criminal Justice II introduces students to concepts and practices in traffic control as well as forensic investigation at crime scenes. Students will have opportunities to use mathematical skills in crash reconstruction and analysis activities requiring measurements and performance of speed/acceleration calculations. Additional activities simulating criminal investigations will be used to teach scientific knowledge related to anatomy, biology, and chemistry as well as collection of evidence, developing and questioning suspects, and protecting the integrity of physical evidence found at the scene and while in transit to a forensic science laboratory. Procedures for the use and control of informants, inquiries keyed to basic leads, and other information-gathering activities and chain of custody procedures will also be reviewed. Current trends in criminal justice and law enforcement will also be covered.

- Recommended Grade Level: 11, 12
- Required Prerequisites: Criminal Justice I
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

**WELDING TECHNOLOGY I**  
(WELD TECH I)

**5776**

Welding Technology I includes classroom and laboratory experiences that develop a variety of skills in oxy-fuel cutting and Shielded Metal Arc 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 (AWS) are used. Instructional activities emphasize properties of metals, safety issues, blueprint reading, electrical principles, welding symbols, and mechanical drawing through projects and exercises that teach students how to weld and be prepared for college and career success.

- Recommended Grade Level: 11, 12
- Recommended Prerequisites: None
- Credits: 2 semester course, 2 semesters required, 1-3 credits per semester, 6 credits maximum
- Counts as a Directed Elective or Elective for all diplomas

**WELDING TECHNOLOGY II**  
(WELD TECH II)

**5778**

Welding Technology II builds on the skills covered in Welding Technology I. Emphasis is placed on safety at all times. OSHA standards and guidelines endorsed by the American Welding Society (AWS) are used. Instructional activities emphasize properties of metals, safety issues, blueprint reading, electrical principles, welding symbols, and mechanical drawing through projects and exercises that teach students how to weld and be prepared for college and career success.

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

# WORLD LANGUAGES

## SPANISH I (SPAN I)

2120

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

- Recommended Grade Level: 9, 10, 11, 12
- Recommended Prerequisites: none
- Credits: 2 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma

## SPANISH II (SPAN II)

2122

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

- Recommended Grade Level: 9-12
- Recommended Prerequisites: Spanish I
- Credits: 2 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

**SPANISH III**  
(SPAN III)

**2124**

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

- Recommended Grade Level: 9, 10, 11, 12
- Required Prerequisites: Spanish I and II
- Credits: 2 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors diploma

# Advanced Placement

Advanced Placement (AP) courses are intended to be equivalent to a similar college level course. The College Board does not designate a time period during which the content of the high school course is to be covered. Most AP courses require two traditional semesters to adequately address the course content and prepare students for the associated exam. The bulleted items following each course description indicate a few AP classes that could conceivably be completed in either one semester or two. All schools wishing to label a course “AP” must submit the subject-specific AP Course Audit form and the course syllabus to the College Board for each teacher of that AP course. The AP course audit information and is available at <http://www.collegeboard.com/html/apcourseaudit/>. It is also strongly recommended that all AP teachers take advantage of professional development opportunities in their content area.

Student Selection Criteria for AP courses: The College Board suggests that all students who are willing to accept the challenge of a rigorous academic curriculum should be considered for admission to AP courses. The College Board encourages the elimination of barriers that restrict access to AP courses for students from ethnic, racial, and socioeconomic groups that have been traditionally underrepresented in the AP Program. Schools should make every effort to ensure that their AP classes reflect the diversity of their student population. The IDOE further supports a school developing criteria for admission to AP courses to include, but are not limited to, AP Potential, previous success in content area courses, teacher recommendations, and standardized test results.

A comprehensive description of all AP course can be found on the College Board AP Central Course Description web page at: <http://apcentral.collegeboard.com/apc/public/courses/descriptions/index.html>

**AP BIOLOGY (L)**  
(BIO AP)

**3020**

AP Biology is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The major themes of the course include: The process of evolution drives the diversity and unity of life, Biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain dynamic homeostasis, living systems store, retrieve, transmit and respond to information essential to life processes, Biological systems interact, and these systems and their interactions possess complex properties.

- Recommended Grade Level: 11, 12
- Recommended Prerequisite: Biology I and Chemistry I
- Credits: 2 semester course, 1 credit per semester
- Counts as a Science Course for all diplomas
- Qualifies as a quantitative reasoning course

**AP CALCULUS AB**  
(CALC AB AP)

**2562**

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

- Recommended Grade Level: 11, 12
- Required Prerequisites: Pre-Calculus
- Credits: 2 semester course, 1 credit per semester
- Counts as a Mathematics Course for all diplomas
- Qualifies as a quantitative reasoning course

**AP CHEMISTRY (L)**  
(CHEM AP)

**3060**

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

- Recommended Grade Level: 12
- Recommended Prerequisite: Chemistry I, Algebra II, Pre-Calculus/Trigonometry
- Credits: 2 semester course, 1 credit per semester
- Counts as a Science Course for all diplomas
- Qualifies as a quantitative reasoning course

**AP ENGLISH LANGUAGE AND COMPOSITION**  
(LNG/COMP AP)

**1056**

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

- Recommended Grade Level: 11, 12 (College Board does not designate when this course should be offered).
  - Recommended Prerequisites: English 9 and English 10 or teacher recommendation. Students should be able to read and comprehend college-level texts and apply the conventions of standard written English in their writing.
  - Credits: 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for grades 11 or 12 for all diplomas

**AP ENGLISH LITERATURE AND COMPOSITION**  
(LIT/COMP AP)

**1058**

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

- Recommended Grade Level: 11, 12
- Recommended Prerequisites: English 9 and English 10 or teacher recommendation. Students should be able to read and comprehend college-level texts and apply the conventions of Standard Written English in their writing.
- Credits: 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for grades 11 or 12 all diplomas

**AP UNITED STATES GOVERNMENT AND POLITICS**  
(US GOVT AP)

**1560**

AP United States Government and Politics is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. AP U.S. Government and Politics provides a college-level, nonpartisan introduction to key political concepts, ideas, institutions, policies, interactions, roles, and behaviors that characterize the constitutional system and political culture of the United States. Students study U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions

among political institutions, processes, and behavior. They also engage in disciplinary practices that require them to read and interpret data, make comparisons and applications, and develop evidence-based arguments. In addition, they complete a political science research or applied civics project.

- Recommended Grade Level: 11, 12
- Recommended Prerequisites: Students should be able to read a college level textbook and write grammatically correct sentences.
- Credits: 1 to 2 semester course, 1 credit per semester
- Fulfills the Government requirement for all diplomas

### **AP MICROECONOMICS** (MICRO-ECON)

**1566**

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.

- Recommended Grade Level: 11, 12
  - Recommended Prerequisites: none. Students should be able to read a college level textbook and write grammatically correct, complete sentences.
  - Credits: 1 to 2 semester course, 1 credit per semester
- Counts as an Elective for all diplomas
- Fulfills the Economics requirement for all diplomas
  - Qualifies as a quantitative reasoning course

### **AP SPANISH LANGUAGE AND CULTURE** (SP LANG AP)

**2132**

AP Spanish Language and Culture is a course established and copyrighted by the College Board and follows the College Board course guidelines for AP Spanish Language and Culture. The course prepares students to be successful on the AP Spanish Language and Culture exam. The course is not intended to be used as a dual credit course.

The AP Spanish Language and Culture course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP Spanish Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish.

The AP Spanish Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

- Recommended Grade Level: 11, 12
- Recommended Prerequisites: Spanish I, II and III
- Credits: 2 semester course, 1 credit per semester
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma

**AP STATISTICS**  
(AP STAT)

**2570**

AP Statistics is a course based on the content established and copyrighted by the College Board. The course is not intended to be used as a dual credit course. The AP Statistics course is equivalent to a one-semester, introductory, non-calculus-based college course in statistics. The course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes in the AP Statistics course: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding.

- Recommended Grade Level: 11, 12
- Recommended Prerequisite: Algebra II or Integrated Mathematics III
- Credits: 1 to 2 credit course, 1 credit per semester. Due to the level of rigor, it is recommended that AP Statistics be offered as a 2 semester, 2 credit course.
- Counts as a Mathematics Course for all diplomas
- Qualifies as a quantitative reasoning course

## **Advanced Courses for College Credit**

Advanced Course for College Credit covers (1) any college-level course offered for credit by an accredited post-secondary institution through an approved agreement with a secondary school, or (2) any other post-secondary course offered for dual credit under the provisions of 511 IAC 6-10. The intent of this course is to allow schools to award high school credit to students for taking college courses with content that goes beyond that currently approved for high school credit.

**Dual credit** is the term given to courses in which high school students have the opportunity to earn both high school and college credits. Dual credit courses are taught by high school faculty, adjunct college faculty, or college faculty either at the high school or the college/university. This may also include online courses or distance education taught by college faculty. Dual credit is offered by both state and independent (private, regionally accredited) colleges and universities.

Indiana law currently requires each Indiana high school to offer a minimum of two dual credit courses.

According to the Indiana Commission for Higher Education's Policy on Dual Credit Courses Taught in High Schools by High School Faculty, all post-secondary institutions shall generate transcripts for all students who complete advanced courses for dual credit. In order to apply these dual credits toward an Honors Diploma Award, both the secondary and the post-secondary institutions must transcript the credit.

## RCHS Dual Credit Courses for 2019-2020

### **Agriculture CTE**

Animal Science	5008
Natural Resources	5180
Advanced Life Sciences, Animals	5070

### **Engineering/Technology CTE**

Introduction to Engineering Design PLTW	4812
Principles of Engineering PLTW	4814
Civil Engineering & Architecture PLTW	4820

### **Family & Consumer Science CTE**

Education Professions I	
Education Profession II	

### **Health Science CTE**

Medical Terminology	5274
Health Science Education I	5282

### **Mathematics**

Pre-Calculus Honors	2564
Trigonometry Honors	2566

### **Social Studies**

AP US Government & Politics	1560
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### **Trade & Industry, Technology CTE**

Automotive Services Technology I	5510
Automotive Services Technology II	5546
Construction Trades I	5580
Construction Trades II	5578
Welding I	5776
Welding II	5778

### **World Language**

AP Spanish Language & Culture	2132
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### **Trade and Industrial Education at other area high schools CTE**

Criminal Justice I	5822
Criminal Justice II	5824

## **Quantitative Reasoning (Applied Mathematics)**

In November 2011, the State Board of Education passed graduation requirements that affect incoming freshmen beginning in 2012-2013, including requirements for quantitative reasoning (applied mathematics) courses.

- For the Core 40, Academic Honors (AHD), and Technical Honors (THD) diplomas, students must take a mathematics course or a quantitative reasoning (applied mathematics) course each year they are enrolled in high school. 511 IAC 6-7.1-6 (c) (4)
- For the General Diploma, students must earn two credits in a mathematics course or a quantitative reasoning (applied mathematics) course during their junior or senior year. 511 IAC 6-7.1-4 (c) (4)
- A quantitative reasoning (applied mathematics) course is a high school course that "advances a student's ability to apply mathematics in real world situations and contexts" and that "deepens a student's understanding of high school mathematics standards."
- The Indiana Department of Education will provide an annual review to determine the high school courses that meet these criteria.
- The below list provides the current RCHS courses that have been determined to meet the criteria for quantitative reasoning (applied mathematics) courses.

## RCHS Quantitative Reasoning Courses for 2019-2020

### **Advanced Placement**

AP Biology	3020
AP Chemistry	3060
AP Microeconomics	1566

### **CTE-Agriculture**

Advanced Life Sciences, Animals	5070
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### **CTE-Business, Marketing, Information, and Entrepreneurship**

Business Math	4512
Computer Science I	4801
Computer Science II	5236
Personal Financial Responsibility	4540

### **CTE-Engineering and Technology**

Civil Engineering and Architecture	4820
Engineering Design and Development	5698
Principles of Engineering	4814

### **CTE-Trade and Industry**

Construction Trades II	5578
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### **Science**

Chemistry I	3064
Chemistry II	3066
Physics I	3084

### **Social Studies**

Economics	1514
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