



**Coulterville
High School**

**Course
Guide**

2018-2019

INTRODUCTION

This guide's purpose is to provide information about the courses which will be offered at Coulterville High School during the 2018-2019 school year. The guide is intended to help students and their parents become better acquainted with the content of specific courses and to aid them in the decision making process which will be taking place during registration.

Additional academic regulations are published in the Student/Parent Handbook published in August.

CUSD #1 Administration

Mrs. Karyn Albers, Superintendent

Mr. Brandon Taylor, Principal

Mr. Brad Coke, Athletic Director

CUSD #1 Guidance

Mrs. Jamie Kwiatkowski, Guidance Counselor

Coulterville Unit District #1 Vision

Coulterville Unit School District #1 will guide its students to become problem solvers, collaborators, and community oriented citizens who are ready to assume the skills and responsibilities of productive members of society.

Coulterville Unit District #1 Mission Statement

The mission of Coulterville Public School is to empower all students with the necessary critical thinking skills to understand, evaluate and assimilate a broad range of knowledge. The school community will encourage the development of character, problem solving, and self-motivation to become independent life-long learners and allow our students to take their place as productive members of society.

TABLE OF CONTENTS

University Requirements.....	4
Graduation Requirements.....	4
Change of Class Policy.....	5
Grades, Grade Point Average, Class Rank	5
How to use this guide	6
Dual Credit Enrollment Courses.....	6
Course Descriptions	7
English.....	7
Mathematics.....	9
Science	11
Social Science	13
Fine Arts.....	15
Foreign Language.....	16
Health & Physical Education	17
Communication	18
Manufacturing	19
Architecture & Construction	20
Transportation	22
Engineering & Technology.....	23
Miscellaneous.....	25

Declaration of Non-Discrimination

No student, employee, or applicant for employment shall, on the basis of age, race, color, gender, religion, national origin, marital status, or disability be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity. Correspondence concerning these issues may be addressed to the Principal's office.

COURSE REQUIREMENTS FOR MOST COLLEGES AND UNIVERSITIES

College entrance requirements often exceed the minimum requirements for graduation. In the State of Illinois, there are significant requirements for the high school courses expected for college admissions. Many colleges require or expect completion of 4 credits in English, not counting Journalism. Other common minimum requirements are completion of at least Algebra II in math, 3 years of social science and science, and a total of at least sixteen credits in these areas. Students planning to attend the University of Illinois are advised to take at least 2 years of the same foreign language since this is an entrance requirement. The Guidance Department has information on general guidelines, for admissions into the major state universities in Illinois, as well as catalogs from other universities. Vocational courses may be substituted in some cases.

Please note that for specific information on ACT/SAT, class rank and course requirements, students and parents may contact the Guidance Department or consult the specific college's website.

Students are also advised that many selective colleges and scholarship programs encourage and often expect students to maintain a rigorous class load each year.

GRADUATION REQUIREMENTS

4 ½ credits in English

½ credit in Speech
English I
English II
English III
English IV

3 credits in Math

Algebra I – Part 1
Algebra I – Part 2
Or Algebra I
Geometry

2 credits in Science

Biology
Forensics
Advanced Biology
Conceptual Biology
Chemistry
Physics

3 credits in Social Studies

Civics (½ credit)
Modern US History
US Government
Local Illinois History
Geography
Particular Topics in US History

1 credit in Foreign Language/Fine Arts/Vocational Education

4 credits in Physical Education

½ credit in Business Tech

½ credit in Health

5 elective credits

Total Credits Required for Graduation 24

Students must earn a minimum of twenty-four credits in order to graduate from Coulterville High School. Four and one half credits must be earned in language arts (one credit in each grade and speech); two credits in science; three credits in mathematics (Algebra I Parts 1 & 2 or Algebra I, and one credit in Geometry); three credits in social studies (one half credit in Civics, one credit in US History, and one credit in US Government); four credits in physical education (one credit in each grade); and one credit in music, art, foreign language, or vocational education.

The student must also satisfy consumer education and other State of Illinois requirements.

These procedures are listed in the Student/Parent Handbook. Students should not assume these courses would be available in their planning.

CHANGE OF CLASS POLICY

Students have the opportunity and the responsibility to plan a realistic educational program for the following year. Students should study course descriptions, make use of instructors' and counselors' recommendations, and discuss plans with their parents.

Parents and students should give serious consideration to this matter before choosing specific courses because students will be expected to remain in the selected courses. School administrators build a schedule and teachers prepare based upon these final selections.

Once the 2018-2019 school year starts, your student may be allowed to change classes, with Guidance Counselor, Teacher, and/or Administration approval.

Even where one of the above circumstances applies, students can only add classes on a space-available basis.

CHS Counselor and the Principal may initiate a change in a student's program for the following reasons:

- ✓ If a student fails a course and the school rule requires that the student be dropped.
- ✓ If an instructor and/or counselor recommends a different course level.
- ✓ If it is necessary to "balance" classes.
- ✓ If a doctor and/or nurse certifies that a physical condition warrants a change.
- ✓ If an error has been made in a student's schedule.
- ✓ If change in faculty requires a change in master schedule.

GRADES, GRADE POINT AVERAGE, CLASS RANK

Coulterville High School uses a grading system that reflects the student's cumulative grade average and their percentage earned. This will include a letter grade based on the percentage earned: A = 100-90 (superior), B= 89-80 (very good), C= 79-70 (average), D= 69-60 (poor), and F= 59-0 (failure) based directly on the student's cumulative grade average and percentage earned throughout the semester.

Grade point average is determined by taking the total points earned in the core subjects for all previously completed semesters and dividing by the number of grades received. The number will be rounded to the hundredths place. Once rounded all people with the same GPA will be considered to be tied for the class ranking that goes with that GPA.

HOW TO USE THE GUIDE

In this guide, you will find the number, the title, and a brief description of each of the possible courses offered at Coulterville High School. In addition, the length of each course and the credit allotted to each course are shown. Prerequisites are listed for numerous courses. Prerequisites are conditions that must be met before enrollment. They have been established to provide the maximum assurance that the courses will be completed satisfactorily.

You are urged to read the descriptions, consider the recommendations made by your current instructor, and talk with the Guidance Department.

CHS DUAL CREDIT COURSES WITH SAINT LOUIS UNIVERSITY

ENGL 1900 Advanced Strategies of Rhetoric and Research – year long – 1 CHS credit/3 SLU credits

Studies complex structures of language including its logical and persuasive possibilities. Emphasizes analytical reading, critical thinking, and research. methodology skills. **Pre-requisite: enrollment in English/Language Arts IV Semester 1**

ENGL 2250 - Conflict, Social Justice and Literature – year long – 1 CHS credit/3 SLU credits

This course introduces literary study within the context and theme of Cultural Conflict and Social Justice. Through the reading of a wide variety of genres - including drama, poetry, and fiction - the course engages students in literary ways of knowing. Methods include close reading, comparative textual analysis, and argumentative writing. **Pre-requisite: enrollment in English/Language Arts IV Semester 2**

CHS DUAL CREDIT COURSES WITH SOUTHWESTERN ILLINOIS COLLEGE

WLDT 101 Introduction to Welding – year long – 1 CHS credit/6 SWIC credits

Introduced the basic concepts of joining metal by fusion processes. This course covers SMAW (stick welding), using 6010, 7018 and 7024 electrodes and the FCAW wire welding process. Emphasis is put on building proper size fillet welds in the 2F horizontal position. Introduction to Electric Air Carbon Arc cutting. Also included is the acetylene cutting of mild steel and FCAW 2-F fillet welds, along with the care and use of welding tools and equipment. **Pre-requisite: enrollment in Welding I**

WLDT 152 All Position Arc Welding – year long – 1 CHS credit/5 SWIC credits

Deals exclusively with covered electrode electric arc welding in the four basic positions which are flat, vertical, horizontal and overhead. Introduction to Gas Metal Arc Welding and Flux Core Arc Welding. Types and weldability of metals with electric cutting and gouging also included. **Pre-requisite: enrollment in Welding II**

CMT 145 Building Trades Craft Survey I – year long – 1 CHS credit/4 SWIC credits

The construction students will explore the basic trades' skills required to complete a modern building project. The course will survey carpentry, ironwork, laborer's work, sheetmetal and concrete finishing. **Pre-requisite: enrollment in Construction Trades I**

01 English Language Arts

01001A000 English/Language Arts I (9th grade) – year long – 1 credit

English/Language Arts I (9th grade) courses build upon students' prior knowledge of grammar, vocabulary, word usage, and the mechanics of writing and usually include the four aspects of language use: reading, writing, speaking, and listening. Typically, these courses introduce and define various genres of literature, with writing exercises often linked to reading selections.

01002A000 English/Language Arts II (10th grade) - year long – 1 credit

English/Language Arts II (10th grade) courses usually offer a balanced focus on composition and literature. Typically, students learn about the alternate aims and audiences of written compositions by writing persuasive, critical, and creative multi-paragraph essays and compositions. Through the study of various genres of literature, students can improve their reading rate and comprehension and develop the skills to determine the author's intent and theme and to recognize the techniques used by the author to deliver his or her message.

01003A000 English/Language Arts III (11th grade) – year long – 1 credit

English/Language Arts III (11th grade) courses continue to develop students' writing skills, emphasizing clear, logical writing patterns, word choice, and usage, as students write essays and begin to learn the techniques of writing research papers. Students continue to read works of literature, which often form the backbone of the writing assignments. Literary conventions and stylistic devices may receive greater emphasis than in previous courses.

01004A000 English/Language Arts IV (12th grade) – year long – 1 credit

English/Language Arts IV (12th grade) courses blend composition and literature into a cohesive whole as students write critical and comparative analyses of selected literature, continuing to develop their language arts skills. Typically, students primarily write multi-paragraph essays, but they may also write one or more major research papers.

01009A000 Language Arts Laboratory – year long – 1 credit

Language Arts Laboratory courses provide instruction in basic language skills, integrating reading, writing, speaking, and listening, while placing great emphasis on the progress of individual students. Course content depends upon students' abilities and may include vocabulary building, improving spelling and grammar, developing writing and composition skills, reading silently or aloud, and improving listening and comprehension abilities.

01066A000 Strategic Reading – year long – 1 credit

Strategic Reading courses are intended to improve a student's vocabulary, critical-thinking and analysis skills, or 5 reading rate and comprehension level. Although these courses typically emphasize works of fiction, they may also include works of nonfiction (including textbooks). Strategic Reading courses often have a time-management focus, offering strategies for note-taking or for understanding and evaluating the important points of a text.

01067A000 Assisted Reading – year long – 1 credit

Assisted Reading courses offer students the opportunity to focus on their reading skills. Assistance is targeted to students' particular weaknesses and is designed to bring students' reading comprehension up to the desired level or to develop strategies to read more efficiently.

01068A000 Corrective Reading – year long – 1 credit

Corrective Reading courses offer diagnostic and remedial activities designed to correct reading difficulties and habits that interfere with students' progress in developing reading skills and understandings. Activities are chosen to increase or improve students' reading comprehension, reading technique, and general literacy skills.

01151A000 Public Speaking – semester long – 0.5 credit

Public Speaking courses enable students, through practice, to develop communication skills that can be used in a variety of speaking situations (such as small and large group discussions, delivery of lectures or speeches in front of audiences, and so on). Course topics may include (but are not limited to) research and organization, writing for verbal delivery, stylistic choices, visual and presentation skills, analysis and critique, and development of self-confidence.

02 Mathematics

02052A000 Algebra I – year long – 1 credit

Algebra I courses include the study of properties and operations of the real number system; evaluating rational algebraic expressions; solving and graphing first degree equations and inequalities; translating word problems into equations; operations with and factoring of polynomials; and solving simple quadratic equations.

02053A000 Algebra I—Part 1 – year long – 1 credit

The first part in a multi-part sequence of Algebra I. This course generally covers the same topics as the first semester of Algebra I, including the study of properties of rational numbers (i.e., number theory), ratio, proportion, and estimation, exponents and radicals, the rectangular coordinate system, sets and logic, formulas, and solving first degree equations and inequalities.

02054A000 Algebra I—Part 2 – year long – 1 credit

The second part in a multi-part sequence of Algebra I. This course generally covers the same topics as the second semester of Algebra I, including the study of properties of the real number system and operations, evaluating rational algebraic expressions, solving and graphing first degree equations and inequalities, translating word problems into equations, operations with and factoring of polynomials, and solving simple quadratics.

02056A000 Algebra II – year long – 1 credit

Algebra II course topics typically include field properties and theorems; set theory; operations with rational and irrational expressions; factoring of rational expressions; in-depth study of linear equations and inequalities; quadratic equations; solving systems of linear and quadratic equations; graphing of constant, linear, and quadratic equations; properties of higher degree equations; and operations with rational and irrational exponents. **Pre-requisite: Algebra I Part 1 & Part 2 OR Algebra I AND Geometry OR Applied Geometry**

02072A000 Geometry (or Applied Geometry) – year long – 1 credit

Geometry courses, emphasizing an abstract, formal approach to the study of geometry, typically include topics such as properties of plane and solid figures; deductive methods of reasoning and use of logic; geometry as an axiomatic system including the study of postulates, theorems, and formal proofs; concepts of congruence, similarity, parallelism, perpendicularity, and proportion; and rules of angle measurement in triangles.

02103A000 Trigonometry (Trigonometry B) – semester long – 0.5 credit

Trigonometry courses prepare students for eventual work in calculus and typically include the following topics: trigonometric and circular functions; their inverses and graphs; relations among the parts of a triangle; trigonometric identities and equations; solutions of right and oblique triangles; and complex numbers. **Pre-requisite: Algebra II**

02110A000 Pre-Calculus (Trigonometry A) – semester long – 0.5 credit

Pre-Calculus courses combine the study of Trigonometry, Elementary Functions, Analytic Geometry, and Math Analysis topics as preparation for calculus. Topics typically include the study of complex numbers; polynomial, logarithmic, exponential, rational, right trigonometric, and circular functions, and their relations, inverses and graphs; trigonometric identities and equations; solutions of right and oblique triangles; vectors; the polar coordinate system; conic sections; Boolean algebra and symbolic logic; mathematical induction; matrix algebra; sequences and series; and limits and continuity. **Pre-requisite: Algebra II**

02121A000 Calculus – year long – 1 credit

Calculus courses include the study of derivatives, differentiation, integration, the definite and indefinite integral, and applications of calculus. Typically, students have previously attained knowledge of pre-calculus topics (some combination of trigonometry, elementary functions, analytic geometry, and math analysis).

02153A000 Technical Math – semester long – 0.5 credit

Technical Math courses extend students' proficiency in mathematics, and often apply these skills to technical and/or industrial situations and problems. Technical Math topics may include but are not limited to rational numbers, systems of measurements, tolerances, numerical languages, geometry, algebra, statistics, and using tables, graphs, charts, and other data displays. Technology is integrated as appropriate. **Pre-requisite: Algebra I Part 1 & Part 2 OR Algebra I AND Geometry OR Applied Geometry**

02201A000 Probability and Statistics – semester long – 0.5 credit

Probability and Statistics courses introduce the study of likely events and the analysis, interpretation, and presentation of quantitative data. Course topics generally include basic probability and statistics: discrete probability theory, odds and probabilities, probability trees, populations and samples, frequency tables, measures of central tendency, and presentation of data (including graphs). Course topics may also include normal distribution and measures of variability. **Pre-requisite: Algebra I Part 1 & Part 2 OR Algebra I AND Geometry OR Applied Geometry**

03 Life and Physical Sciences

03001A000 Earth Science – year long – 1 credit

Earth Science courses offer insight into the environment on earth and the earth's environment in space. While presenting the concepts and principles essential to students' understanding of the dynamics and history of the earth, these courses usually explore oceanography, geology, astronomy, meteorology, and geography.

03003A000 Environmental Science – year long – 1 credit

Environmental Science courses examine the mutual relationships between organisms and their environment. In studying the interrelationships among plants, animals, and humans, these courses usually cover the following subjects: photosynthesis, recycling and regeneration, ecosystems, population and growth studies, pollution, and conservation of natural resources.

03051A000 Biology (9th grade) – year long – 1 credit

Biology courses are designed to provide information regarding the fundamental concepts of life and life processes. These courses include (but are not restricted to) such topics as cell structure and function, general plant and animal physiology, genetics, and taxonomy.

03052A000 Biology—Advanced Studies – year long – 1 credit

Usually taken after a comprehensive initial study of biology, Biology—Advanced Studies courses cover biological systems in more detail. Topics that may be explored include cell organization, function, and reproduction; energy transformation; human anatomy and physiology; and the evolution and adaptation of organisms.

03062A000 Conceptual Biology – year long – 1 credit

These courses provide students with a basic understanding of living things. Topics covered may include ecology and environmental problems such as overpopulation and pollution as well as cells, types of organisms, evolutionary behavior, and inheritance.

03063A000 Particular Topics in Biology (Biotech) – year long – 1 credit

Particular Topics in Biology courses concentrate on a particular subtopic within the field of biology (such as botany, zoology, genetics, and so on) that is not otherwise described within this classification system.

03101A000 Chemistry – year long – 1 credit

Chemistry courses involve studying the composition, properties, and reactions of substances. These courses typically explore such concepts as the behaviors of solids, liquids, and gases; acid/base and oxidation/reduction reactions; and atomic structure. Chemical formulas and equations and nuclear reactions are also studied. **Pre-requisite: Algebra I Part I & Part 2 OR Algebra I**

03102A000 Chemistry—Advanced Studies – year long – 1 credit

Usually taken after a comprehensive initial study of chemistry, Chemistry—Advanced Studies courses cover chemical properties and interactions in more detail. Advanced chemistry topics include organic chemistry, thermodynamics, electrochemistry, macromolecules, kinetic theory, and nuclear chemistry. **Pre-requisite: Chemistry.**

03151A000 Physics – year long – 1 credit

Physics courses involve the study of the forces and laws of nature affecting matter, such as equilibrium, motion, momentum, and the relationships between matter and energy. The study of physics includes examination of sound, light, and magnetic and electric phenomena.

03159A000 Physical Science – year long – 1 credit

Physical Science courses involve study of the structures and states of matter. Typically (but not always) offered as introductory survey courses, they may include such topics as forms of energy, wave phenomenon, electromagnetism, and physical and chemical interactions.

03162A000 Particular Topics in Physics (Intro to Physics) – year long – 1 credit

Particular Topics in Physics courses concentrate on a particular subtopic within the field of physics (such as optics, thermodynamics, quantum physics, and so on) that is not otherwise described in this classification system.

03201A000 Integrated Science (Forensics) – year long – 1 credit

The specific content of Integrated Science courses varies, but they draw upon the principles of several scientific specialties—earth science, physical science, biology, chemistry, and physics—and organize the material around thematic units. Common themes covered include systems, models, energy, patterns, change, and constancy. These courses use appropriate aspects from each specialty to investigate applications of the theme.

03205A000 Origins of Science – year long – 1 credit

Origins of Science courses explore the body of scientific knowledge and discoveries from an historical perspective, wherein students gain an understanding of how one discovery led to others or to entire revolutions of thought. In these courses, original experiments may be replicated, and students may study primary materials.

04 Social Sciences and History

04001A000 World Geography – year long – 1 credit

World Geography courses provide students with an overview of world geography, but may vary widely in the topics they cover. Topics typically include the physical environment; the political landscape; the relationship between people and the land; economic production and development; and the movement of people, goods, and ideas. Students will focus study on the relationship between the physical geography and the human geography. Special emphasis will be placed on The United States, Latin America, South America, Africa, Australia and New Zealand, and Antarctica.

04051A000 World History—Overview – year long – 1 credit

World History—Overview courses provide students with an overview of the history of human society from early civilization to the contemporary period, examining political, economic, social, religious, military, scientific, and cultural developments. World History—Overview courses may include geographical studies, but often these components are not as explicitly taught as geography.

04064A000 Contemporary World Issues – year long – 1 credit

Contemporary World Issues courses enable students to study political, economic, and social issues facing the world. These courses may focus on current issues, examine selected issues throughout the 20th century, and look at historical causes or possible solutions.

04101A000 U.S. History—Comprehensive – year long – 1 credit

U.S. History—Comprehensive courses provide students with an overview of the history of the United States, examining time periods from discovery or colonialism through World War II or after. These courses typically include a historical overview of political, military, scientific, and social developments. Course content may include a history of the North American peoples before European settlement.

04103A000 Modern U.S. History (11th grade) – year long – 1 credit

Modern U.S. History courses examine the history of the United States from the Civil War or Reconstruction era (some courses begin at a later period) through the present time. These courses typically include a historical review of political, military, scientific, and social developments.

04109A000 Particular Topics in U.S. History – year long – 1 credit

These courses examine a particular topic in U.S. History, such as particular time periods in the history of the United States, or they may focus on the history of particular U.S. regions rather than provide an overview of the subject.

04151A000 U.S. Government—Comprehensive (12th grade) – year long – 1 credit

U.S. Government—Comprehensive courses provide an overview of the structure and functions of the U.S. government and political institutions and examine constitutional principles, the concepts of rights and responsibilities, the role of political parties and interest groups, and the importance of civic participation in the democratic process. These courses may examine the structure and function of state and local governments and may cover certain economic and legal topics.

04161A000 Civics – semester long – 0.5 credits

Civics courses examine the general structure and functions of American systems of government, the roles and responsibilities of citizens to participate in the political process, and the relationship of the individual to the law and legal system. These courses do not typically delve into the same degree of detail on constitutional principles or the role of political parties and interest groups as do comprehensive courses in U.S. Government.

04260A000 Social Science – year long – 1 credit

Social Science courses provide students with an introduction to the various disciplines in the social sciences, including anthropology, economics, geography, history, political science, psychology, and sociology. Typically, these courses emphasize the methodologies of the social sciences and the differences among the various disciplines.

04305A000 Social Studies (Local IL History I, II, III, & IV) – year long – 1 credit

Social Studies courses enable students to study a group of related subjects addressing the elements and structures of human society that may include economics, geography, history, citizenship, and other social studies-related disciplines.

05 Fine and Performing Arts

05103A000 Marching Band – year long – 1 credit

Courses in Marching Band are intended to develop students' technique for playing brass, woodwind, and percussion instruments and cover appropriate band literature styles, primarily for marching performances.

Pre-requisite: 11th or 12th grade

05154A000 Creative Art—Comprehensive – year long – 1 credit

Creative Art—Comprehensive courses provide students with the knowledge and opportunity to explore an art form and to create individual works of art. These courses may also provide a discussion and exploration of career opportunities in the art world. Initial courses cover the language, materials, and processes of a particular art form and the design elements and principles supporting a work of art. As students advance and become more adept, the instruction regarding the creative process becomes more refined, and students are encouraged to develop their own artistic styles. Although Creative Art courses focus on creation, they may also include the study of major artists, art movements, and styles. **Pre-requisite: 11th or 12th grade**

06 Foreign Language and Literature

06101A000 Spanish I – year long – 1 credit

Designed to introduce students to Spanish language and culture, Spanish I courses emphasize basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. Spanish culture is introduced through the art, literature, customs, and history of Spanish-speaking people.

06102A000 Spanish II – year long – 1 credit

Spanish II courses build upon skills developed in Spanish I, extending students' ability to understand and express themselves in Spanish and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of Spanish-speaking people to deepen their understanding of the culture(s). **Pre-requisite: Spanish I**

08 Physical, Health, and Safety Education

08001A000 Physical Education – year long – 1 credit

Physical Education courses provide students with knowledge, experience, and an opportunity to develop skills in more than one of the following sports or activities: team sports, individual/dual sports, recreational sports, and fitness/conditioning activities.

08051A000 Health Education – semester long – 0.5 credit

Topics covered within Health Education courses may vary widely, but typically include personal health (nutrition, mental health and stress management, drug/alcohol abuse prevention, disease prevention, and first aid) and consumer health issues. The courses may also include brief studies of environmental health, personal development, and/or community resources.

08152A000 Drivers' Education—Classroom and Laboratory – semester long – 0.5 credit

Drivers' Education—Classroom and Laboratory courses provide students with the knowledge and experience to become safe drivers on America's roadways. Topics in these courses cover legal obligations and responsibility, rules of the road and traffic procedures, safe driving strategies and practices, and the physical and mental factors affecting the driver's capability (including alcohol and other drugs). Experience in driving a vehicle is an essential component of these courses.

11 Communication and Audio/Visual

11001A000 Introduction to Communication – semester long – 0.5 credit

Introduction to Communication courses enable students to understand and critically evaluate the role of media in society. Course content typically includes investigation of visual images, printed material, and audio segments as tools of information, entertainment, and propaganda; improvement of presentation and evaluative skills in relation to mass media; recognition of various techniques for delivery of a particular message; and, in some cases, creation of a media product. The course may concentrate on a particular medium. **Pre-requisite: Intro to Technology/Engineering or permission of instructor.**

11002A000 Communication Technology – semester long – 0.5 credit

Communication Technology courses enable students to effectively communicate ideas and information through experiences dealing with drafting, design, electronic communication, graphic arts, printing process, photography, telecommunications, and computers. Additional topics covered in the course include information storage and retrieval. Drafting equipment may be used to make scale drawings, including multi-view drawing, photographs, and poster mock-ups. **Pre-requisite: Intro to Technology/Engineering or permission of instructor.**

11002A001 Communication Technology CTE Course – semester long – 0.5 credit

Communication Technology is a course designed to foster an awareness and understanding of the technologies used to communicate in our modern society. Students gain experience in the areas of design and drafting, radio and television broadcasting, computers in communication, photography, graphic arts, and telecommunications. **Pre-requisite: Intro to Technology/Engineering or permission of instructor.**

11101A000 Journalism (Journalism I, II, III, & IV)– year long – 1 credit

Journalism courses (typically associated with the production of a school newspaper, yearbook, or literary magazine) emphasize writing style and technique as well as production values and organization. Journalism courses introduce students to the concepts of newsworthiness and press responsibility; develop students' skills in writing and editing stories, headlines, and captions; and teach students the principles of production design, layout, and printing. Photography and photojournalism skills may be included. **Pre-requisite: permission of instructor.**

11104A000 Publication Production (Publication I, II, & III)– year long – 1 credit

Publication Production courses provide students with the knowledge and skills necessary to produce the school newspaper, yearbook, literary magazine, or other printed publication. Students may gain experience in several components (writing, editing, layout, production, and so on) or may focus on a single aspect while producing the publication. **Pre-requisite: Passing grade in English I AND permission of instructor.**

13 Manufacturing

13052A001 Production Technology CTE Course – semester long – 0.5 credit

Production Technology is a course designed to foster an awareness and understanding of manufacturing and construction technology. Through a variety of learning activities, students are exposed to many career opportunities in the production field. Experiences in manufacturing include product design, materials and processes, tools and equipment including computers, safety procedures, corporate structure, management, research and development, production planning, mass production, marketing and servicing. In construction, students are exposed to site preparation, foundations, building structures, installing utilities, and finishing and servicing structures. **Pre-requisite: Intro to Technology/Engineering or permission of instructor.**

13207A001 Welding Technology I CTE Course – year long – 1 credit

This course assists students in gaining the knowledge and developing the basic skills needed to be successful in welding technology. Units of instruction include arc, TIG and MIG welding, metallurgy, cutting metal using arc, plasma, and oxy-gas. In addition, students learn the basics of blueprint reading, precision measuring, layout, and production process planning. **Pre-requisite: 11th grade or 12th grade AND Intro to Technology/Engineering or permission of instructor.**

13207A002 Welding Technology II CTE Course – year long – 1 credit

This course builds on the skills and concepts introduced in Welding Technology I and provides more in-depth skill development in various types of welding including horizontal, vertical, overhead, and circular techniques. Students also explore the use of robotic and automated production welding. **Pre-requisite: Welding Technology I with a grade of A or B.**

17 Architecture and Construction

17002A000 Construction—Comprehensive (Basic Construction) – semester long – 0.5 credit

Construction—Comprehensive courses provide students with basic knowledge and skills required for construction of commercial, residential, and institutional structures. These courses provide experiences and information (typically including career opportunities and training requirements) regarding construction-related occupations such as carpentry, cabinetmaking, bricklaying, electrical trades, plumbing, concrete masonry, and so on. Students engage in activities such as reading blueprints, preparing building sites, starting foundations, erecting structures, installing utilities, finishing surfaces, and providing maintenance. **Pre-requisite: Intro to Technology/Engineering or permission of instructor.**

17002A001 Construction Trades I CTE Course – year long – 1 credit

This course provides experiences related to the erection, installation, and maintenance of residential buildings and related fixtures. Planned learning activities allow students to understand fundamental principles and methods, and develop technical skills related to masonry, carpentry, and finish work. Instruction includes safety principles and practices, recognition of standard lumber sizes, foundation layout methods, building concepts and procedures, local, state, and national codes, cost estimating, and blueprint reading. **Pre-requisite: 11th grade or 12th grade AND Introduction to Technology OR Basic Construction OR Production Technology OR Introduction to Manufacturing**

17002A002 Construction Trades II CTE Course – year long – 1 credit

This course provides learning experiences related to the erection, installation, maintenance, and repair of building structures and related utilities. Student technical skill experiences include instruction and activities in safety principles and practices, performing maintenance control functions, joining pipes, building water distribution lines and drains, installing and maintaining plumbing fixtures and systems, installing switch and outlet boxes, light fixtures, service entrances, roughing in and trimming out electrical devices and appliances, preparing foundations and footings, constructing residential chimneys and fireplaces, laying, jointing and pointing brick, and advanced building and construction methods and codes. All learning experiences are designed to allow the student to acquire job-entry skills and knowledge. **Pre-requisite: Construction Trades I**

17003A001 Carpentry I CTE Course – semester long – 0.5 credit

This course is designed to introduce students to the Carpentry/Carpenter occupation. Students are instructed in areas of safety, including hand tool, power tool, ladder, scaffolding and the use of safety harnesses. Students are introduced to the theoretical knowledge needed to lay out rafter, stairs, and basic framing techniques. Students demonstrate knowledge of blueprint reading, including foundations, concrete, floor plans, specification schedules, and electrical, plumbing and mechanical symbols. Students demonstrate entry-level skills in all facets of residential construction. Technology-related mathematics, reading, writing, vocabulary, blueprint reading, and science are integrated throughout the curriculum. **Pre-requisite: Intro to Technology/Engineering or permission of instructor.**

17003A002 Carpentry II CTE Course – semester long – 0.5 credit

This course provides learning experiences related to the erection, installation, maintenance and repair of building structures and related utilities. Students are instructed in areas of safety, including hand tool, power tool, ladder, scaffolding and the use of safety harnesses. Students demonstrate knowledge of exterior trim and finishes, energy conservation in residential construction, and design of stairs and rafter building. Students gain knowledge of planning and zoning regulations and building codes. Students are introduced to estimating both materials and construction costs, and demonstrate basic knowledge in applying drywall materials, stair-building skills, designing and erecting wall partitions, applying roofing materials, and installing common siding and interior finish. Technology-related mathematics, reading, writing, vocabulary, blueprint reading, and science are integrated throughout the curriculum. **Pre-requisite: Intro to Technology/Engineering or permission of instructor.**

17007A001 Cabinetmaking & Millwork I CTE Course – year long – 1 credit

This course introduces students to the basic design and fabrication of residential cabinetry and custom furniture. The course also exposes students to the millwork and millwright industry. Instruction includes safety practices in using hand tools and power equipment. **Pre-requisite: 11th grade or 12th grade AND Production Technology OR Carpentry I**

17007A002 Cabinetmaking & Millwork II CTE Course – year long – 1 credit

This course provides learning experiences related to the erection, installation, and maintenance of commercial and residential cabinetry, and the repair and maintenance of stationary woodworking machinery. Planned learning activities emphasize the development of more advanced knowledge and skills than those provided in Cabinetmaking and Millwork I. This course provides the student with the knowledge and skills necessary to perform basic cabinetry construction and how it relates to the manufacturing process. In addition, more advanced woodworking machine maintenance skills are introduced. **Pre-requisite: Cabinetmaking & Millwork I**

20 Transportation, Distribution and Logistics

20001A001 Transportation Technology CTE Course – semester long – 0.5 credit

Transportation Technology is a course designed to foster an awareness and understanding of the various transportation customs that make up our mobile society. Through laboratory activities, students are exposed to the technologies of and career opportunities involved in material handling, atmospheric and space transportation, marine transportation, terrestrial transportation, and computer uses in transportation technology. **Pre-requisite: Intro to Technology/Engineering or permission of instructor.**

20101A001 Energy Utilization Technology CTE Course – semester long – 0.5 credit

Energy Utilization Technology is a course designed to foster an awareness and understanding of how we use energy in our industrial technological society. Areas of study include conversion of energy, electrical fundamentals, solar energy resources, alternate energy resources such as wind, water, and geothermal; fossil fuels, nuclear power, energy conservation, and computer uses in energy technology. Students use laboratory experiences to become familiar with current energy technologies. **Pre-requisite: Intro to Technology/Engineering or permission of instructor.**

20110A001 Small Engine Repair I CTE Course – year long – 1 credit

Small engine repair is an instructional program that prepares individuals to troubleshoot, service, and repair a variety of small internal-combustion engines, involving both two and four cycle engines used on portable power equipment. Planned activities will allow students to become knowledgeable of fundamental principles and technical skills related to troubleshooting, repairing, identifying parts and making precision measurements. Safety will be a key component of this class. Students will also be exposed to career opportunities related to small engines. **Pre-requisite: 11th grade or 12th grade AND Intro to Technology/Engineering or permission of instructor.**

21 Engineering and Technology

21052A001 Foundations of Technology CTE Course – year long – 1 credit

This course focuses on the three dimensions of technological literacy: knowledge, ways of thinking and acting, and capabilities, with the goal of students developing the characteristics of technology literate citizens. The course employs teaching/learning strategies that enable students to build their own understanding of new ideas. It is designed to engage students in exploring and deepening their understanding of “big ideas” regarding technology and makes use of a variety of assessment instruments to reveal the extent of understanding in the following areas: engineering design, manufacturing technologies, construction technologies, energy & power, information & communication technologies.

21052A002 Introduction to Technology and Engineering (Industrial) CTE Course – year long – 1 credit

Introduction to Technology & Engineering is comprised of the following areas: Production, Transportation, Communication, Energy Utilization and Engineering Design but is not limited to these areas only. This course will cover the resources, technical processes, industrial applications, technological impact and occupations encompassed by that system.

21054A001 Technological Design CTE Course – year long – 1 credit

In this course, engineering scope, content, and professional practices are presented through practical applications. Students in engineering teams apply technology, science, and mathematics concepts and skills to solve engineering design problems and innovative designs. Students research, develop, test, and analyze engineering designs using criteria such as design effectiveness, public safety, human factors, and ethics.

21102A002 – Beginning Drafting CTE Course (Introduction to Drafting) – semester long – 0.5 credit

Beginning Drafting is an introductory level drafting course. During this course students will learn the basic fundamentals of drafting and/or computer aided drafting (CAD). The instruction will include the care and use of drafting equipment, freehand sketching, orthographic projection, lettering techniques, dimensioning standards, pictorial drawings, drawing reproduction, and an introduction to CAD. **Pre-requisite: Intro to Technology/Engineering or permission of instructor**

21103A001 Architectural Drafting I CTE Course (Drafting/Computer Aided Drafting I) – semester long – 0.5 credit

This course is designed to provide students interested in a career in Architecture with information and practical experience needed for the development of job-related competencies. Students are made aware of the career opportunities available in the Architectural Drafting and Architectural Drafting CAD - CADD field. Instruction is provided in the areas of planning and organizing activities, researching information, performing general office procedures, preparing of preliminary drawings, basic layout, detail drawings, reproduction techniques, producing working drawings, and computer aided drafting. Students are also provided with instruction in producing architectural drawings in the areas of presentation, floor plans, illustration of landscape features, sketching preliminary floor plans, drawing foundation plans and sections, exterior elevations, stair sections, chimney sections, roof sections, finish schedules, preparing plumbing, HVAC and electrical plans, and structural drawings. **Pre-requisite: Intro to Technology/Engineering or permission of instructor**

21103A001 Architectural Drafting I CTE Course (Drafting/Computer Aided Drafting I.1) – year long – 1 credit

This course is designed to provide students interested in a career in Architecture with information and practical experience needed for the development of job-related competencies. Students are made aware of the career opportunities available in the Architectural Drafting and Architectural Drafting CAD - CADD field. Instruction is provided in the areas of planning and organizing activities, researching information, performing general office procedures, preparing of preliminary drawings, basic layout, detail drawings, reproduction techniques, producing working drawings, and computer aided drafting. Students are also provided with instruction in producing architectural drawings in the areas of presentation, floor plans, illustration of landscape features, sketching preliminary floor plans, drawing foundation plans and sections, exterior elevations, stair sections, chimney sections, roof sections, finish schedules, preparing plumbing, HVAC and electrical plans, and structural drawings. **Pre-requisite: 11th grade or 12th grade AND Intro to Technology/Engineering OR Introduction to Drafting**

21103A002 Architectural Drafting II CTE Course (Drafting/Computer Aided Drafting II.1) – year long – 1 credit

Instruction is provided in the areas of locating information using computer data files, determination of materials and availability, project conferences, checking plan dimensions, drawing schematic sketches, preparing scale sketches, producing drawings from written/verbal instructions, application of coordinate dimensioning standards, creating drawings using a plotter/printer, producing renderings and/or charts and graphs, and common plan features. Instruction is also provided in the areas of drawing framing plans, wall sections, fireplace sections, door sections, door and window schedules, dimensioning structural steel drawings, constructing column detail drawings, preparation of structural foundation, slab and floor plans, drawing electrical, block, schematic, and electrical connection drawings. Skills relating to CAD include preparation of a basic CAD drawing, building and editing a data base, developing a 3-dimensional drawing and selecting appropriate line work, line weight, and color. **Pre-requisite: Drafting/Computer Aided Drafting I.1**

22 Miscellaneous

22003A000 Study Skills – year long – no credit

Study Skills courses prepare students for success in high school and/or for postsecondary education. Course topics may vary according to the students involved, but typically include reading improvement skills, such as scanning, note-taking, and outlining; library and research skills; listening and note-taking; vocabulary skills; and test-taking skills. The courses may also include exercises designed to generate organized, logical thinking and writing.

22005A000 Tutorial – year long – 1 credit

Tutorial courses provide students with the assistance they need to successfully complete their coursework. Students may receive help in one or several subjects.

22151A000 Career Exploration – year long – 1 credit

Career Exploration courses help students identify and evaluate personal goals, priorities, aptitudes, and interests with the goal of helping them make informed decisions about their careers. These courses expose students to various sources of information on career and training options and may also assist them in developing job search and employability skills.

22152A000 Employability Skills – year long – 1 credit

Employability Skills courses help students match their interests and aptitudes to career options with a focus on using employment information effectively, acquiring and improving job-seeking and interview skills, composing job applications and resumes, and learning the skills needed to remain in and advance within the workplace. Course content may also include consumer education and personal money management topics.

22206A000 Life Skills – year long – 1 credit

Life Skills courses provide students with information about a wide range of subjects to assist them in becoming wise consumers and productive adults. These courses often emphasize such topics as goal-setting, decision-making, and setting priorities; money and time management; relationships; and the development of the self. Practical exercises regarding selecting and furnishing houses, meeting transportation needs, preparing food, selecting clothing, and building a wardrobe are often integral to these classes. In addition, specific topics such as insurance, taxation, and consumer protection may also be covered.

22210A000 Consumer Economics/Personal Finance (Business Tech) – semester long – 0.5 credit

Consumer Economics/Personal Finance courses provide students with an understanding of the concepts and principles involved in managing one's personal finances. Topics may include savings and investing, credit, insurance, taxes and social security, spending patterns and budget planning, contracts, and consumer protection. These courses may also provide an overview of the American economy.

22252A000 Communication Instruction – year long – 1 credit

Communication Instruction courses are typically individualized according to each student's condition and needs. Increasing the student's communication skills—oral expression, listening comprehension, reading, and writing—is emphasized; communication techniques in several areas (educational, social, and vocational) are often explored.