Granton Area High School

Course Guidebook

Last updated December 2024

Graduation Requirements Information

Students in grades 9-12 are required to be enrolled in a minimum of seven (7) credits for each academic year. Exceptions may be made for students who are attending high school beyond their eighth semester, participating in the Start College Now or Early College Credit programs, participating in the Youth Apprenticeship program for credit or participating in a school-to-work experience for credit. **Students participating in the Youth Apprenticeship program may receive up to 4 class periods of work release. Students participating in the school-to-work program may have up to 2 class periods of work release. School officials will make the final decision on the amount of work release given to a student participating in these programs.**

A total of **25 credits,** in addition to 1 credit of ACP, is **required for graduation.** Those credits must include the following:

Content	Graduation Credits required	Required Courses
English	**4**	***English I, English II***
Social Studies	**3**	***American History 1, American History II, Political Science***
Math	**3**	***Algebra I, Geometry***
Science	**3**	***Biology***
Health	**.5**	***Health (It is recommended to take health during freshman year.)***
Physical Education	**1.5**	**Any (Must take any one as a freshman)**
Personal Finance	**.5**	***Personal Finance***
Academic & Career Planning	**1 (.25/year)**	***ACP--during homeroom***
Electives	**9.5**	
Civics Exam	**Must pass**	***Must pass, administered as part of Political Science class***

4-Year Course Planning

Please note: This four-year plan is simply a guide to map out possible courses that will prepare and direct you toward a field of study after leaving high school. It will more than likely change over the course of the next few years, and that's ok! The scheduling process is complex and course availability can change from year to year. Contact your school counselor for any questions or concerns related to scheduling.

Freshman Year

English 1

Algebra 1

American History 1

Biology

_____

Health

PE _____

Elective _____

Elective _____

Elective _____

Elective _____

Sophomore Year

English 2

Geometry

American History 2

Science

PE _____

Elective _____

Elective _____

Elective _____

Elective _____

Elective _____

Junior Year

English _____

Math _____

Science _____

Social Studies _____

PE _____

Elective _____

Elective _____

Elective _____

Elective _____

Elective _____

Elective _____

Elective _____

Senior Year

English _____

Social Studies _____

Science _____

Elective _____

Elective _____

Elective _____

Elective _____

Elective _____

Elective _____

Elective _____

Elective _____

Elective _____

Schedule Change Policy

Students may request to add or drop courses without penalty only up to the three days following the start of a semester. Adding any course after the 3rd day of the quarter or semester will require consent of the instructor. This will not apply to transfer students.

If a course is dropped after the third day of the semester, the student will be awarded a grade of "WD", or withdrawal. A "WD" has the same honor point value as an "F", and will negatively impact the student's class rank and grade point average and remain on the permanent academic transcript. The adding or dropping of a course three days after the start of a semester requires signatures from the student, parent, teachers and school counselor on an Add/Drop form, available in the Counseling Office. Requesting to add or drop does not guarantee the change will be made. School officials (school counselor, staff and administration) will examine the impact this decision may have on the student's academic standing. **(In accordance with school board policy, no student will be allowed to drop a course that will lower the student's credit attempts to below seven (7) credits for any one year.** When there are multiple sections of a course students may be assigned to a different section to balance class sizes and resolve staffing and scheduling problems.

Prerequisite Procedure

Some courses indicate a **Prerequisite** in their description. These are required conditions to be eligible to take the course, but may be bypassed if the instructor believes the class is in the best interest of the student and is at an appropriate academic level for the student.

If parents disagree with the instructor's decision to enroll a student in a class, they may begin an appeal process. The course appeal team (teacher, student, parent/guardian, school counselor, and high school principal) will then discuss the decision. If a satisfactory agreement may not be reached, parents may contact the district superintendent.

Course Offerings

The course offerings at Granton High School are immense. The courses which our talented faculty teach are supplemented with course opportunities from Distance Learning and Virtual/On-Line high school to high school courses, UW College Courses via Early College Credit Program, Advanced Placement Courses, Technical College Courses via Start College Now Program, transcripted courses, and virtual education courses. All courses listed below are taught by Granton faculty. All other courses offered through the distance learning network indicate from which school the course is taught. Please see the descriptions below for an understanding of the wealth of opportunities available at Granton. If you do not see something listed that you are interested in, please contact your school counselor.

Distance Learning (DL):

Distance learning is an instructional delivery model and refers to the method in which courses not offered as face-to-face courses at Granton High School may be taught. Students in grades 9-12 may be eligible to take a distance-learning course on the Central Wisconsin Educational Telecommunications Network (CWETN) system or another cooperating network. All students requesting enrollment in a DL course will be evaluated by the high school principal, school counselor and/or district DL coordinator to determine if such a placement is academically appropriate.

The interactive web-cam allows a teacher to see and interact with students during their scheduled time. These courses may be high school to high school courses, early college credit courses, and/or start college now courses. Students must receive prior approval from the school counselor or building principal, and the course must comply with graduation requirements. Because coursework is completed remotely and their teacher is typically not on site at Granton, this format of education requires a high level of maturity and self-motivation. The cost for a DL course is paid for by the Granton Area School District. **In the event that a student does not successfully complete a college level or Wisconsin Virtual School course, the student/parent is responsible for the cost of the course.**

High School to High School:
These courses are high school level classes taught by high school teachers from other school districts. These classes are typically taught using our distance learning system, but may also be taught online.

Early College Credit:
This program allows Wisconsin public and private high school students to take one or more courses at an institution of higher education for high school and/or college credit. Under this section, "institution of higher education" means an institution within the University of Wisconsin System, a tribally controlled college, or a private, nonprofit institution of higher education located in the state. These courses are typically taught using our distance learning system or online. Tuition fees and books for courses taken as part of these programs for high school credit are paid for by GHS. If a student does not complete/pass the course, the student/parent is responsible for the cost of the course. Students interested should see the school counselor.

Deadlines: According to state law, March 1st is the deadline for all student applications during the first semester of the following school year. October 1st is the deadline for all applications submitted to GHS for students who want to be involved in either of the programs during the second semester of that school year

Start College Now:
This program allows Wisconsin students to take one or more courses through the Wisconsin Technical College system. In accordance with Wisconsin state law, students who are interested in enrolling in a course that is not offered at GHS may be eligible to take the course at UW-Marshfield/Wood County, Mid-State Technical College or another academic institution. Though these courses are typically taught using our distance learning system, students must provide their own transportation if necessary. Tuition fees and books for courses taken as part of these programs for high school credit are paid for by GHS. If a student does not complete/pass the course, the student/parent is responsible for the cost of the course. Students interested should see the school counselor.

Deadlines: According to state law, March 1st is the deadline for all student applications during the first semester of the following school year. October 1st is the deadline for all applications submitted to GHS for students who want to be involved in either of the programs during the second semester of that school year.

Transcripted/Dual Credit:
Transcripted credit courses are an agreement between Granton High School and Mid-State Technical College (MSTC) or Northcentral Technical College (NTC) in which students receive both high school credit (by passing the course with a "C" or better) and technical college credit. Upon completion of a transcripted credit course, students receive an official MSTC/NTC transcript. Transcripted credit courses are actual technical college courses that are taught by Granton High School teachers here at Granton High School. There is no cost to the student for these technical college credits, which normally cost approximately $100/credit

Virtual/On-Line Education:
This is an instructional delivery model that does not require the student to be physically present in the same location as their teacher. All coursework is completed online, using the format provided by the course teacher. Format for assignment submission may include, but is not limited to Word, Google Docs, and Google Sheets. Students must receive prior approval from the school counselor and/or building principal, and the course must comply with graduation requirements. approval by the guidance counselor or the building principal must be obtained prior to a student enrolling in an online or virtual course (taken from Granton Area School District Board Policy, Chapter 9, Section Q). Because coursework is completed online, this format of education requires a high level of maturity and self-motivation.

College Course Offerings:

A variety of college courses and technical college courses are available to juniors and seniors. Some of these are online learning, and some are virtual learning through the CWETN network. Please see your school counselor with any questions.

Please use this link to find all high school and college courses available. At the bottom of the page, there are tabs (sheets) that organize the course options by subject, as well as by high school and higher education facility.

CESA 10 Distance Learning Catalog 2024-2025

Granton High School Course Offerings

Agriculture

Offered Every Year	Offered Odd Number Years
Forestry	**Aquaculture**
Wildlife Management	**Agribusiness Management**
Landscape Management (fall)	**Feeding America (fall)**
Advanced Landscape Management	**Small Animal Care**
Vet Science (Science elective credit)	**Personal Leadership**
Food Science (Science elective credit)	**Ornamental Horticulture**
Plant Science (Science elective credit, Spring only)	**Fish, Forestry & Wildlife (TC, 10-12)**
Advanced Forestry (spring only)	**General Horticulture (TC, 10-12, spring)**
Agricultural Affairs	**Going Green in Agriculture (TC, 10-12)**
	Large Animal Production 2
Offered Even Number Years	
Large Animal Production	
Career Leadership	
Natural Resources	
GPS/GIS	

Agribusiness Management: This course has been modified to focus on all areas associated with managing an agribusiness. We will discuss the types of businesses and the advantages and disadvantages of each. We will learn many bookkeeping skills for determining profitability, net worth, and inventory values. We will also look at the many aspects of marketing agricultural products and services. This course will help students gain personal management skills for the future.
½ Credit Prerequisite: none Grades: 9-12

Agricultural Affairs: This course will serve as an educational resource for students to develop a better understanding of the current issues impacting agriculture, not only in Wisconsin, but throughout the nation and world. Various controversial topics will be explored so that students are presented with the facts and are able to make responsible decisions based on those facts, not false pretenses. There will be lots of sharing of current event articles and stories, as well as data and facts that will generate discussion and debate. General topics will include the seven Agriculture Career Cluster Areas of Agribusiness, Animal Systems, Environmental Systems, Food Products, Natural Resources, Plant Systems, and Power and Structural Systems. Some units would include DNR Regulations, Sustainability, Ethics, Organic Farming, Genetically Modified Organisms (GMO's), Factory Farming, Technology, Food Safety, and much more.
½ Credit Prerequisite: none Grades: 9-12

Aquaculture: This course uses a hands-on approach to 21st agriculture utilizing our resource of water. Hydroponics is the growing of plants in water instead of soil. Members of this class will be instrumental in developing a hydroponics system for lettuce and tomato production in the agriculture department to supplement production in the greenhouse. The class members will also implement the increased use of the bulk fish tank, raising small game fish and tilapia fish. This will include all of the production aspects of fish through harvest, fileting, etc. In addition, home water units of aquariums through commercial production will be covered. We will also learn taxidermy procedures on panfish.
½ Credit Prerequisite: none Grades: 9-12

Career Leadership: This course will spend significant time on the various learning styles to highlight personal and professional development as students prepare for the world of work and/or higher education. This advanced course will help you better prepare for life beyond high school and to have a take-charge attitude about life. Time will be spent developing job applications, resumes and portfolios, as well as preparing for a job interview.
½ Credit Prerequisite: none Grades 9-12

Feeding America: This course takes an in-depth, hands-on approach to developing and marketing agriculture and dairy products. Labs will focus on the processing and preparation of foods from the time they leave the farm until they reach the consumer. Students will learn how to make dairy products, prepare jams and jellies, make candies, can and freeze fruits and vegetables, make meat jerky and more. Students will also study agriculture's role in today's food supply and the world scope of food production.
½ Credit Prerequisite: none Grades 9-12

Fish, Forestry & Wildlife (TC, Intro to Fisheries, Forestry & Wildlife Resources – 3 credits):
Integrated introduction to principles and practices of fisheries, forestry and wildlife management, including production of goods and services while maintaining ecosystem integrity and functions. Emphasis on contemporary issues.
½ Credit Prerequisite: none Grades: 10-12

Food Science (Science elective credit): This course combines agriculture and consumer education to develop an appreciation and understanding of the American Food Supply. Careers, nutritional requirements and food labeling will be featured. Steps and application in Food Processing and engineering will be demonstrated through various lab processes, as well as basic food microbiology labs. Food Safety, Biotechnology and new trends in food chemistry will also be a key emphasis of the course. This course proves to offer many hands-on exercises in studying food for its nutrient value and safe handling.
½ Credit Prerequisite: C or better in Biology Grades: 10-12

Forestry: The forestry industry is featured as the background to this course. We look at local, state and national forest management practices and plan to work on developing the current school forest. We will study the many forest products and management practices. This includes a study of the paper making industry, maple syrup production and lumber harvesting and marketing. This course is designed to help develop a better understanding of the life cycle and identification of many species of trees and to form a conservation attitude for working in and developing today's forests. This course is designed to utilize the current ecosystem and forest land on the school property.
½ Credit Prerequisite: none Grades: 9-12

Advanced Forestry: This course is an extension of the forestry course offered and students must have completed that course or received permission from the instructor for this course. This course will be a hands-on course designed to apply basic forest management skills and procedures utilizing the school forest as a learning lab.
½ Credit Prerequisite: Forestry Grades: 9-12

General Horticulture (TC, Mid-State Technical College: Intro to Horticulture 3 credits)
This course provides an overview of the science and profession of horticulture. Its role and importance throughout history, current trends, and careers will be covered. Particular attention is given to horticultural crops, their use and interrelationships among the environment, plant growth, and plant development.
½ Credit Prerequisite: none Grades: 10-12

Going Green in Agriculture (TC, Mid-State Technical College: Alternative Energy Overview Course - 2 credits)
In this course, students will investigate the need for renewable energy systems and emerging careers in renewable energy. Students will examine the basic design, function, cost, and other associated with various "green" energy systems, including solar photovoltaic, solar thermal, wind, geothermal and biomass. Students will also explore the production and use of alternative transportation fuels.
½ Credit Prerequisite: none Grades: 10-12

GPS/GIS in Agriculture: This course is for the technology minded. This course will utilize the newest technology in agriculture of the GPS (Global Positioning Systems) and GIS (Graphic Information Systems) Students will learn the many functions of a GPS and apply them in a lab environment. We will mark numerous agriculture plots and then develop maps and other pertinent information from the data collected. We will also look at GPS in the operation of agriculture equipment. We will learn the skill of geocaching, which is a hobby to collect hidden treasures throughout the nation, using GPS. Students will find the value and application of the GPS as a tool in many everyday activities, as well. It is predicted that at the end of the course, students will want their own GPS unit.
½ Credit Prerequisite: none Grades: 9-12

Landscape Management: We will learn the principles of designing a landscape for home and/or business, participate in the design and development practices, while then implementing these designs in a final installation project. This course is very hands-on and physical.
½ Credit Prerequisite: none Grades: 9-12

Advanced Landscape Management: This course is designed for students who completed the landscaping course and have an understanding of the basic landscaping principles. Students will participate in numerous outdoor projects that develop skills in landscape maintenance and installation, and during inclement weather, projects that utilize the new Landscape Pro software for designing various residential and commercial landscaping projects. This is a very hands-on class providing the opportunity for skill enhancement for potential home-owners of the future, as well as, those interested in green and outdoor careers.
½ Credit Prerequisite: Landscape Management Grades: 9-12

Large Animal Production: Provides fundamental knowledge of the animal science field. Topics include animal health, animal environments, anatomy and physiology, genetics and reproduction, animal feedstuffs, and job-related safety. Participants will experience animal concepts through the completion of hands-on activities.
½ Credit Prerequisite: none Grades: 9-12

Large Animal Production 2: Provides fundamental knowledge of the animal science field. Topics include animal health, animal environments, anatomy and physiology, genetics and reproduction, animal feedstuffs, and job-related safety. Participants will experience animal concepts through the completion of hands-on activities.
½ Credit Prerequisite: none Grades: 9-12

Natural Resources: This course identifies today's vital natural resources and highlights the important uses of conservation. The course includes a study of soil science as it relates to natural resources. Conservation practices are studied and an implementation plan and design is developed. Soil surveys are taught and performed throughout the Granton School District. Legal land description is also a big part of the program emphasizing business procedures in Natural Resources. Society's role in natural resource management is reviewed, as well as energy sources and pollution control. In addition, we look at our water supply and sources, and study the factors needed to ensure a safe and usable water supply for the future.
½ Credit Prerequisite: none Grades: 9-12

Ornamental Horticulture: runs at the same time as General Horticulture, but is not taken for MSTC credit
½ Credit Prerequisite: none Grades: 9-12

Personal Leadership: This course is designed to help students develop their personal leadership skills for the future. The various categories and styles of leadership will be addressed and individuals will learn how to use their strength and improve on their weaknesses in regard to numerous traits. Some emphasis will also be placed on communication skills as an individual and group. This course promises to be a fast paced, self-development class to help improve your self-confidence.
½ Credit Prerequisite: none Grades: 9-12

Plant Science (Science elective credit, Spring only): This course is designed to provide students with the concepts and knowledge of plant growth and production. Concepts from biology will be applied in this class as we investigate how plants conduct gas exchange, photosynthesis, and reproduction. A large portion of this class will be spent in the greenhouse and laboratory setting, so student participation is essential. Other concepts covered include plant anatomy, identification, soil management, nutrient assessments, and overseeing of the annual plant sale.
½ Credit Prerequisite: Grade of C or better in Biology Grades: 10-12

Small Animal Care: This course will feature hands-on labs raising and caring for the small animals and pets familiar to our area. General feeding and care requirements will be featured, along with health and other management skills. This course is for the animal and pet lover. Actual agriculture department pets will be purchased and cared for as a part of the class and will feature standard pets, as well as the unusual and unique.
½ Credit Prerequisite: none Grades: 9-12

Vet Science (Science elective credit): This course includes units on biotechnology, genetics, animal reproduction and physiology, veterinary science and animal health, and animal nutrition. Controversial and accepted technologies in agriculture are also studied. Students can train and receive certification in AI.
½ Credit Prerequisite: Grade of C or better in Biology Grades: 11-12

Wildlife Management: Wildlife habitat and ecological success is dependent upon a healthy environment. This course studies the wildlife species native to Wisconsin and their environmental and physical needs. The course also focuses on hunting and fishing regulations, taxidermy practices, outdoor photography and wildlife conservation and management. Students develop an appreciation of wildlife recreation and learn about the many conservation practices to help protect this valuable resource.
½ Credit Prerequisite: none Grades: 9-12

Art

Odd Number Years	Even Number Years
Graphic Design	**Graphic Design**
Drawing	**Drawing**
Ceramics	**Ceramics**
Photography	**Photography**
Independent Art Studio	**Independent Art Studio**
Printmaking	**Painting**
Advanced Drawing & Painting	**Jewelry & Art Metals**
Advanced Photography	**Art History**
Advanced Ceramics	**Crafts**
Sculpture	Industrial Design

Art History: Students will learn the broad history of art from prehistoric times to the art created today. This course will compare art to the time in which it was created and why artists created their art in this way. Students will be expected to take notes, memorize artists, names of pieces, artistic time periods and dates related to the pieces studied. There will be a class field trip to the Minneapolis Institute of Arts to view art in real life.
½ Credit Prerequisite: none Grades: 9-12

Ceramics: This class will emphasize developing personal expression and original ideas in ceramic media. Students will learn about functional and sculptural clay techniques using a variety of hand-building, wheel-thrown, slip-casting, and mold making. Glazes and different firing methods will be learned in addition to historical and technical styles of ceramics.
½ Credit Prerequisite: none Grades: 9-12

Advanced Ceramics: Advanced ceramic techniques in both wheel and/or hand-built sculpture. Students will take responsibility for kiln firing and visit professional pottery studios. There will be increased emphasis on creative and original expression of ideas.
½ Credit Prerequisite: successful completion of ceramics Grades: 9-12

Crafts: Students will explore the more crafty side of art. It's a DIY art class. Things from home decor, crocheting, needle felting to tie dying, candle making and sewing. These will be things they can decorate their homes with or give as gifts. Students get to explore their creativity and enjoy the process of creating.
½ Credit Prerequisite: none Grades: 9-12

Drawing: Drawing is the foundation to all other artistic mediums. Students will learn about drawing objects with correct proportions, adding value to drawings, and drawing from life/still images. Students will primarily work with graphite and charcoal to create pieces using a variety of subject matter
½ Credit Prerequisite: none Grades: 9-12

Advanced Drawing & Painting: This advanced course emphasizes greater use of media and techniques, personal expression and exhibition of work.
½ Credit Prerequisite: successful completion of Drawing and Painting Grades: 9-12

Digital Photography: Students will learn about the history of photography from film to digital photography today. They will learn how to use a DSLR camera. We will explore compositions of photos, lighting, color and how to modify images. We will use photoshop to edit and modify photos.
½ Credit Prerequisite: none Grades: 9-12

Advanced Digital Photography: Students will dig deeper into what we look at to make a good photo great. We will learn more about photo editing. We will explore different career options in photography. Students will end the class with a college/professional ready portfolio.
½ Credit Prerequisite: Digital Photography Grades: 9-12

Graphic Design: Students will be introduced to the applicable world of graphic design, developing ideas and sketches to create pieces that would be presented to prospective clients. We will explore a Photoshop-like program, practice manipulating images, discuss the importance of typeface in design, calligraphy, and experimenting with different layouts.
½ Credit Prerequisite: none Grades: 9-12

Independent Art Studio: An independent advanced class for the serious art student. Students will contract an individualized program to study their own area of art interest.
½ Credit Prerequisite: Drawing, 1st Class in area of interest, consent of instructor Grades: 11-12

Jewelry and Art Metals: Students will explore jewelry through the ages and learn a variety of different jewelry media including plastic, glass, ceramic, and metal. Techniques such as enameling, soldering, casting, and other art metal fabricating will be taught.
½ Credit Prerequisite: none Grades: 9-12

Painting: This class will emphasize developing personal expression and original ideas through painting media. Students will learn about different painting media such as watercolor, tempera, and acrylic. Students will get in depth with color theory, mixing their own colors and understanding how colors affect their piece. Students will also learn how to mat, frame and display work.
½ Credit Prerequisite: none Grades: 9-12

Printmaking: Class emphasis will be on developing personal expression and ideas through drawing and printmaking media. We will study a variety of printmaking techniques such as woodcut/linoleum cut, silkscreen, lithography, intaglio, calligraphy, and monoprints. We will focus on simpler techniques to understand the basic concepts of printmaking.
½ Credit Prerequisite: none Grades: 9-12

Sculpture: Students will study different sculpture styles and techniques in wood, metal, plaster, plastics, ceramics, and other materials in expressing personal and original ideas.
½ Credit Prerequisite: none Grades: 9-12

What about industrial design? That has been in the course guidebook before, but not sure it has been the last couple of years. I don't have a plan for this class or the tools and materials needed

Business and Information Technology

Currently, all business and IT courses are offered through distance learning on the CWETN network.

Offered Every Year

Personal Finance

Please be sure to check the distance learning catalog for all options in this career area!

CESA 10 Distance Learning Catalog 2024-2025

English

Offered Every Year
English 1 English 2 English 3 English 4

English 1: The focus of this course is on writing skills and the reading of various materials. Utilizing the writing process, students will compose a variety of written works, including: essays, nonfiction, creative writing, and a research paper. As students improve their writing skills, they will review and advance mechanics and usage skills. A major component of this class will also be discussion. Students will learn to discuss different literature and literary forms. Students will develop vocabulary skills and write essays in order to analyze characters, and compare and contrast works.
½ Credit Prerequisite: none Grades: 9

English 2: In this course, students will continue to develop and perfect their writing skills based on the skills they have already attained. Students will formulate individual writing goals based on a review of their writing portfolio. Emphasis will be on various forms of expository writing, including further development of the fundamentals of research. This class will study various forms of literature including novels, short stories, and drama. We will analyze form and content, as well as a number of literary devices through class discussion and individual writing.
1.0 Credit Prerequisite: Successful completion of English 1 Grade: 10

American Literature: This course includes reading and discussion of representative American literature (poetry, short fiction, novels and drama) from colonial days to 1850. Vocabulary study and composition are incorporated into the study of literature.
½ Credit Prerequisite: Successful completion of English 1 and 2 Grades 11-12

Foreign Language

Currently, all foreign language courses are offered through distance learning on the CWETN network.

Health

Health: This course is a comprehensive health class. The content areas include: Mental and Emotional health, Human Sexuality and Family Life; Alcohol, Tobacco and Other Drugs; Communicable and Noncommunicable Disease; Injury Prevention and Safety; Consumer Health; Environmental and Community Health. This course is required for graduation.
½ Credit Prerequisite: none Grades: 9-12

Health 2: This course will cover safety and First Aid. The content includes Lifeguard training, CPR/AED , Blood borne Pathogens, Inhaler, and Epi-pen training. This is an elective course and does not fulfill the high school graduation requirement. At its completion, students will be certified in Red Cross First Aid/CPR/AED and Lifeguarding for 2 years. **Course fee: $40.00**. Covers certification payment and CPR mask which is kept by the student.
½ Credit Prerequisite: successful completion of Health Grades: 9-12

Mathematics

Offered Every Year
Algebra Essentials (as needed) Algebra 1 Algebra 2 Geometry PreCalculus (as needed) Tech Math

Algebra Essentials: This course presents foundations of high school level math. Students will strengthen their basic math skills including equations, functions, algebraic, and geometric concepts that will assist kids in being successful in Algebra. (instructor recommendation only)
1.0 credit Prerequisite: none Grade: 9

Algebra 1: This course revolves around the use of the language of mathematics as a problem-solving tool. Topics will include real numbers and number lines, solving of one and two variable equations, use of variables and algebraic equations to define and solve problems, and linear and quadratic relationships and functions. An emphasis will be placed on applications of algebra involving the solving of numerous real-life problems.
½ Credit Prerequisite: none Grades: 9-10

Algebra 2: This course is designed to follow Geometry and leads into pre-calculus concepts. It should be chosen by the student who is looking toward post high school education. The emphasis here is on functions. The course begins with patterns and a review of linear functions and continues with quadratics. Imaginary numbers will be introduced. Problem solving and applications of functions will be included.
1.0 Credit Prerequisite: successful completion of Algebra 1 and Geometry Grades: 11-12

Geometry: Geometry is the study of one, two and three-dimensional space. This course begins with a foundation of inductive thinking and mathematical proof. Topics of planar shapes, congruency, symmetry, and similarity are covered in depth. The properties of polygons (especially triangles) and circles are emphasized. Coordinate geometry is used to discuss perpendiculars, parallels, tangents, area, slope, distance, perimeters, and volumes.
1.0 Credit Prerequisite: successful completion of Algebra 1 Grades: 10-11

PreCalculus: Pre-Calculus introduces the student to the meaning behind derivatives and integrals. Applications of functions for problem solving will include classic maximization problems. Trigonometric functions including polar coordinates and trigonometric identities and a thorough study of logarithms and exponential functions including natural

logs are presented. Parametric equations, inverses and composite functions will be explored. Throughout the course, graphing calculators will be used to increase understanding and technological education.
1.0 Credit Prerequisite: successful completion of Algebra 2 Grades: 11-12

TechMath: Technical Math is a math course designed for students looking for a rigorous review of foundational mathematical concepts. Technical Math is a preparation for students going into technical college mathematics and for those going directly into the workforce. Calculator use will be minimal during the first semester. Topics covered will be basic arithmetic operations with real numbers, measurement, ratios, percent, proportion, basic algebra, basic geometry, problem solving and right triangle trigonometry. This class will incorporate practical application of above mentioned topics.
1.0 Credit Prerequisite: successful completion of Algebra 1 and Geometry Grades: 11-12

Music

Band: This is a standard, 'traditional' band performance class that meets five times per week. A minimum of 50 minutes' practice time per week is expected. There are three to four major concerts per year, the possibility of four parades over the summer months is also possible and into the fall (Granton Fall Festival parade being one), pep band performances both away and at home, Veterans Day Program, large band WSMA festival performance, WSMA solo and ensemble participation and graduation ceremony. All performances are required and full participation is expected and graded.
1.0 Credit Prerequisite: none Grades: 9-12

Concert Choir: This is a performance class that meets five times per week. The choir performs at the music revue variety show concert, holiday concert, and large group music festival concert, and end of the year pops and awards concert. Music performed will be of concert and contemporary nature. Solo-Ensemble Festival is required for all students.
1.0 Credit Prerequisite: none Grades: 9-12

Physical Education

Lifetime Fitness: This class may include: Fitness plan/development/assessment, cooperative activities/team building, swimming skills, badminton, eclipse ball, dance, ultimate frisbee, volleyball-sand, fish-cast/bait/jig, orienteering/GPS, omniken ball, triathlon/ triathlon training, team-building, bocce ball, disc golf, snow shoe, Yoga, ice skating, fitness videos, rock climbing, dance, group dance, etc.
½ Credit Prerequisite: none Grades: 9-12

INDIVIDUAL/DUAL SPORTS: This class may include: Fitness plan/development/assessment, resistance training-tubes, race-walk/HRT monitor, swim-endurance swim skills, dance-country/square, bowling, cycling, golf, pickleball, self-defense, yoga, archery, tennis, downhill skiing, badminton, circuit/par fitness course, and triathlon/triathlon training, etc.
½ Credit Prerequisite: none Grades: 9-12

Weightlifting: This class may include: Creating weight training logs, charting weight records, learning weight maximums, yoga/ ball exercises, cooperative activities/team building, water fitness, frisbee skills, fitness videos, circuit fitness course, etc.
½ Credit Prerequisite: none Grades: 9-12

Team Sports: This class may include: Volleyball, basketball, floor hockey, Lacrosse, softball, swim-water polo, dance-social/folk, floor hockey, broomball, team handball, team-building, crazy cricket, table tennis, flag football, etc.
½ Credit Prerequisite: none Grades: 9-12

Women's Fitness: In Women's Fitness you will work on activities that focus on muscle toning and endurance training. This is a class that will work out your whole body without using a lot of weights. Activities will include step aerobics, yoga, pilates, and dance aerobics.
½ Credit Prerequisite: none Grades: 9-12

PHYSICAL EDUCATION CREDIT SUBSTITUTION POLICY

Students may complete an additional one-half credit in English, social studies, mathematics or science in lieu of one-half credit in physical education when they participate in a WIAA-sanctioned sport as part of the district's athletic program. Courses eligible for substitution include any non-required course in English, social studies, mathematics or science. The one-half credit substitution must be beyond the minimum graduation requirements in these subject areas. The student must successfully complete this course during the same school year they participate in the WIAA-sanctioned sport. Students choosing to participate in the Physical Education Credit Substitution option must do so before 2nd semester of their senior year.

Additional requirements are as follows:

1. The student must participate in a WIAA sanctioned sport, beginning and ending the season in good standing.
2. The student must not be out for more than two weeks for injury or illness during the sport season, unless the injury or illness is validated by a medical professional.
3. The student must not have any athletic code violations resulting in a suspension of one or more competitions for the sport season.
4. The student must be an athlete eligible to compete throughout the duration of the season.

Students who choose to take a course as outlined above in lieu of one-half credit in physical education must register for the program with the School Counselor in advance and have the coach of the WIAA-sanctioned sport they participate in complete the Physical Education Credit Substitution Form after the season's end. The approved organized physical activity itself does not count as one-half credit of physical education. The one-half credit in one of the designated subject areas will replace the one-half credit of physical education requirement for graduation, leaving the student with a 1.0 credit high school physical education graduation requirement.

Science

Offered Every Year	Offered Every Other year
Biology Advanced Biology Chemistry Earth Science Astronomy Meteorology Vet Science Food Science Plant Science	**Even Numbered Years:** Microbiology Physics **Odd Numbered Years:** Anatomy & Physiology

Anatomy and physiology: Anatomy and physiology is a one-credit class focusing on the human body. Students will study the different systems of the human body and fundamental physiological concepts. Any student thinking about careers in health or medical related careers should take this course as an introduction to that field. Students will be required to read two novels throughout the semester for reading integration. During the school year, the topics of ethics and morals will be addressed and the dissection of chicken eggs and cats will take place. Students will need to be open to these concepts in order to enroll in this class.

1.0 Credit Prerequisite: successful completion of biology (B or better or consent of instructor) Grades: 11-12

Astronomy: This semester course will provide a general survey of Astronomy. Topics will include the history of astronomy, time, tools of astronomy, the solar system, stars and stellar evolution, galaxies, dark matter and dark energy, cosmology and space exploration. The course will include several moodle and internet based projects throughout the semester. Students will have the opportunity to visit a planetarium for a class field trip. For those wondering what is beyond their front door or in this case Earth. It is advised that students have computer access at home for homework completion.

½ Credit Prerequisite: none Grades: 10-12

Biology: Biology is the study of life and living organisms. This course encompasses four main themes, the process of diversity, energy flow through an ecosystem/individual species, information necessary for life processes, and biological interactions. This class includes learning about the scientific method experiments and other tools biologists use to test their discoveries, cell biology, evolution, genetics and ecology.
1.0 Credit Prerequisite: none Grades: 9-10

Advanced Biology: Advanced Biology is the study of animals and their behaviors and interactions within their environment. This course will build the student's critical thinking skills while focusing on animal classification, species adaptation and diversification, and comparative anatomy through the dissections of various species of animals.
1.0 Credit Prerequisite: none Grades: 10-12

Chemistry: Chemistry is the study matter, including its properties as well as its components. This class is a must for anyone with plans of post high school education. Topics include Scientific Measurement, SI, Classification of Matter, History of the Atom, Atomic Structure, Electron Clouds, the Periodic Table, Chemical Formulas, Moles, Chemical Reactions, Chemical Bonding and Gas Laws. There is a strong lab component to this course**.**
1.0 Credit Prerequisite: Algebra 1 (grade of C or better or consent of instructor) Grades: 10-12

Earth Science: This course is designed for students with an active interest in the physical world around them. Topics will be covered in depth, and will include rocks and minerals, weathering and erosion, maps, plate techtonics, water on the Earth, air cycles, weather, climate, and our place in space. This course will be much more rigorous than middle school Earth Science, with much more attention to detail and the scientific method.
½ Credit Prerequisite: none Grades: 10-12

Microbiology: This course may be of interest to students planning to enter health related fields after graduation. Units include: basic microscope techniques, microbiological specimen preparation and staining techniques, morphology, nutritional and environmental needs of microbes, genetics and microbe identification. Students will be learning and using laboratory techniques that will help prepare them for secondary education. Students will be required to read two narratives throughout the semester for reading integration.
1.0 Credit Prerequisite: successful completion of Biology (B or better or consent of instructor Grades: 11-12

Physics: Physics is the study of matter and energy and how they are related. Topics include Measurement, SI, Classical Mechanics, Force, Gravitation, Friction, Momentum, Light/Optics, and Sound. There is a strong lab component to this course.
1.0 Credit Prerequisite: successful completion of Physical Science, Algebra 1, and Geometry (Grade of C or better in each, or consent of instructor) Grades: 11-12

Food Science: This course combines agriculture and consumer education to develop an appreciation and understanding of the American Food Supply. Careers, nutritional requirements and food labeling will be featured. Steps and application in Food Processing and engineering will be demonstrated through various lab processes, as well as basic food microbiology labs. Food Safety, Biotechnology and new trends in food chemistry will also be a key emphasis of the course. This course proves to offer many hands-on exercises in studying food for its nutrient value and safe handling.
½ Credit Prerequisite: successful completion of Biology Grades: 10-12

Plant Science: This class will focus on the biology of flowers. Topics covered in the class will include the cell, plant anatomy, plant functions, and propagation of plants, flowers, trees and shrubs. This class will also utilize the greenhouse to conduct a plant sale. Students will be responsible for all planting, care, marketing, and selling of plants.
½ Credit Prerequisite: successful completion of biology Grades: 10-12

Vet Science: This course includes units on biotechnology, genetics, animal reproduction and physiology, veterinary science and animal health, and animal nutrition. Controversial and accepted technologies in agriculture are also studied. Students can train and receive certification in AI.
½ Credit Prerequisite: small animal care or large animal production or biology Grades: 11-12

Social Studies

Offered Every Year	Offered Every Other year
American History 1 American History 2 Political Science World History 1 World History 2 Psychology World War 2	**Even Numbered Years:** Current Events **Odd Numbered Years:** Wisconsin Social Studies

American History 1: This required course, designed for incoming freshmen and some sophomores, will give students an introduction to the geography, people, places, events, attitudes, and ideas that have helped shape America. American History I starts with America before European contact, follows the creation and development of the American colonies and the fledgling American nation, before focusing on the struggles of the young country. Special emphasis at that point will be put on the division created over the issue of slavery, the resulting Civil War, and finish the year with post-war Reconstruction.
1.0 Credit Prerequisite: none Grade: 9

American History 2: This required course picks up where American History I left off. We will look at the foundation of modern America from the 1860's until World War I including the settling of the West and the issues associated with race, industry, cities, and immigration. The course will then switch into turn of the century foreign policy forays, the Roaring 20's, the Great Depression, and World War II. The end of the year will be spent on the social, economic, political, and cultural developments since World War II that have shaped our country today with emphasis on the Cold War, Civil Rights movement, Vietnam era, and issues that our country faces today.
1.0 Credit Prerequisite: none Grade: 10-11

Wisconsin Social Studies: During the course of this class we will be learning about Wisconsin from the perspective of a number of different Social Studies disciplines. We will learn the geography and climate and the regional differences of those in our state. We will spend the majority of the class learning about the history of our state; starting with Native Americans through the early European settlement leading to statehood, the Civil War, the many changes in our economy, and the struggles of modern times. During the course of that study we will learn some of the origins and features of our state's unique culture and people. We will then turn to a sociological and demographic look at Wisconsin today. We will look at the people of the state and features like religion, ethnic groups, race, income, and regional differences. We will finish the year with a brief overview of our government system in Wisconsin. This course meets 0.5 credit of the social studies elective requirement.
½ Credit Prerequisite: Completion of American History 1 & 2 Grades: 11-12

Current Events: This course will focus on events that have happened around the World in the past 20 years. We will investigate the historic origins of the events that make world new headlines today. Students will be required to read and analyze current news publications in periodicals such as Newsweek and Time. Much of the class will be discussion and research based. Students will be able to choose many of the topics discussed in class.
½ Credit Prerequisite: Completion of American History 1 & 2 Grades: 11-12

World History 1: Students learn about the rise of civilizations in the Near East, the Egyptians in the days of the Pharaohs, and the warring City-States of Mesopotamia. The culture and society of the Ancient Greeks will be examined, from the militaristic polis of Sparta to the world's first democracy in Athens. Special attention will be paid to how the philosophy of ancient Greece has shaped western culture. The rise and fall of the Roman Republic and Empire will be analyzed, from its beginning as a small city to the most powerful Empire the world had ever known. Special attention will be paid to individuals of high influence and examining the impact of the individual on the course of history. Finally, we will examine the rise of Christianity and the barbaric kingdoms of Europe following the collapse of Rome. World History I and II may be taken in any order.
½ Credit Prerequisite: Completion of American History 1 & 2 Grades: 11-12

World History II: Students will learn about the Middle Ages through our current times. As the Renaissance brings new light to Europe in the areas of science, mathematics, art, literature, and music, Europe also begins to dominate the globe politically. We will examine how this European dominance began as well as how it has impacted the world we inherit today. Time periods of focus will include the Renaissance, revolutionary Europe in the 1800's, and the dynamic 20th century. Special attention will be paid to the concepts of revolution, art, philosophy, technology, warfare and current events. Students will be expected to think critically about readings and writing and question conventional understandings of what history is and how it affects the world today. World History I and II may be taken in any order.
½ Credit Prerequisite: Completion of American History 1 & 2 Grades: 11-12

Psychology: The curriculum provides a high school level overview of basic psychological concepts such as brain development, function, personality, altered states of consciousness, and abnormal behaviors. Students are expected to design, execute, present, and experiment. Writing skills are emphasized in this course.
½ Credit Prerequisite: Completion of American History 1 & 2 Grades: 11-12

Technical Education

Offered Every Year	Offered Every Other year
Woods 1 Woods 2 Intro to Welding Advanced Welding Metals AutoCad 1 AutoCad2 Building and Construction Manufacturing Advanced Tech Ed Home & Auto Maintenance	**Even Numbered Years:** Small Engines **Odd Numbered Years:** Power, Energy & Transportation Architectural Drafting

Woods 1: This is a semester course in which students will learn how industry alters materials to fit consumer's needs. The class will cover safety, measurement, calculating board feet, work instructions, precision measurement and reading blueprints. Students will learn about different processes which include: combining, separating, forming, and finishing. Students will have the opportunity to work with and transform wood into a variety of products throughout the semester. Safe and correct operation of all lab tools and equipment is required.
½ Credit Prerequisite: none Grades: 9-12

Woods 2: his class will expand on previously learned skills covered in Woods I. In this class students will cover many of the same topics in greater depth and accuracy. Students will also design, purchase materials and build their own woodworking projects. The $15 will cover the first project of the class but projects after that will need to be paid for by the student.
½ Credit Prerequisite: Woods I or consent of instructor Grades: 9-12

Building and Construction: This is a one-semester course for those students with a strong interest in construction related careers. Emphasis is placed on residential construction and students will learn about the many tools, techniques, and materials used in the residential construction industry. Safety and construction code is also outlined along with the many career opportunities in the construction technology area. The course often centers around one large building project and students should be prepared for some physical labor.
½ Credit Prerequisite: Woods I or consent of instructor Grades: 9-12

Metals: This class is recommended for 9th and 10th graders. Students learn about safety, materials, and processes used in industry. They study types of metal, tools, and methods of machining: lathe milling machines, drill presses, and sheet metal work.

½ Credit Prerequisite: none Grades: 9-12

Manufacturing: This course is designed for students to learn about the broad field of manufacturing. Students will learn about what manufacturing is, how it has developed, different types of manufacturing, planning, and production. Students will work as a group to form a small company in which they will design, produce, market, package, and distribute their product.
½ Credit Prerequisite: Woods I or consent of instructor Grades: 9-12

Intro to Welding: (TC, Mid-State Technical College: Stainless Steel Welding Certificate Program - 1 credit) This course will teach students a variety of skills needed to work in the manufacturing industry. The class will cover safety, measurement, blueprint reading, forging, sheet metal, metal Layout, MIG welding, TIG welding, Arc welding, oxy-acetylene, and career opportunities. The students will receive lectures, demonstrations and lab time to produce several projects.
½ Credit Prerequisite: none Grades: 10-12

Advanced Welding: Advanced Welding is a metal fabrication and construction course. Students will receive experience in arc and oxyacetylene welding. Accelerated students also receive experience on the TIG and MIG machines. The course will include a student-designed project.
½ Credit Prerequisite: Intro to Welding Grades: 10-12

Intro to Auto Cad: In this course, students study the fundamentals and basic constructions used in drafting. Fundamentals such as line weight, lettering, and dimensioning are studied. This course is designed for students seeking in-depth, hands-on knowledge of technology. Students will be working to design, construct, and test various projects throughout the year, utilizing a 3D solid modeling program. These projects may include: Puzzle Cubes, Desktop Organizers, and Lego Products. This course could lead into the vast fields of engineering: medical, environmental, manufacturing research & design, and/or computer applications. All drawings will be completed using Computer Aided Design (CAD) software. Students are encouraged to take advantage of the year-long option for this course, but may take for one semester if schedule conflicts will not permit a full year.
½ Credit Prerequisite: none Grades: 9-12

Applied Home and Auto Maintenance: This course is designed for those students with an interest in general consumer awareness pertaining to home and automobile maintenance. The class will be split by quarter, one quarter will be dedicated to Autos and another to Home maintenance. In the Autos portion of the class students will be focused on purchasing, maintaining, and repairing vehicles. The Home portion of the class will focus on residential wiring and home wiring design. Students will gain hands-on experience in auto maintenance, basic electrical wiring, and plumbing.
½ Credit Prerequisite: none Grades: 9-12

Small Engines Technology and Repair: Students will learn how to diagnose, tune-up, repair and rebuild all types of small air cooled engines. They will study the two and four stroke cycle engine and an introduction to the automobile engine.
½ Credit Prerequisite: none Grades: 9-12

Power, Energy, & Transportation: This course is divided into five segments: sources of energy, transmission of energy, storage and control of energy, and transportation. Students rotate through learning stations that include basic electronics, hydraulics, engines, mechanisms and solar energy.
½ Credit Prerequisite: none Grades: 10-12

Architectural Drafting: This course focuses on architectural drafting. Drawings will be completed with AutoCAD. There will be an expansion upon the first semester's work to include architectural details, 3-D drawings, utility plans (plumbing, electrical, and HVAC), schedules, sections, landscape plans and pictorials. The course work will emphasize good architectural design, fundamentals, and engineering principals as well as career study in the field of Architectural Drafting. Students should be self-motivated.
½ Credit Prerequisite: Autocad recommended Grades: 9-12

Advanced Tech Ed: In this course, students work independently under learning contracts on research projects or lab projects of their own design and fabrication. *All material cost (such as Nwood and metal) for projects must be paid by student*. Some career study will be included as part of this course. Students may work in any area of Technology Education as long as they have completed the prerequisite courses in that cluster. Students will need to submit a project plan along with parent approval before they are allowed to enroll in the class.

½ Credit Prerequisite: consent of instructor Grades: 9-12

Agriculture, Food, & Natural Resources

This diverse Career Cluster prepares learners for careers in the planning, implementation, production, management, processing, and/or marketing of agricultural commodities and services, including food, fiber, wood products, natural resources, horticulture, and other plant and animal products. It also includes related professional, technical and educational services.

The Seven Pathways

Plant Systems • Plant Breeder and Geneticist • Soil and Water Specialist • Certified Crop Advisor • Botanist • Tree Surgeon • Education and Extension Specialist • Golf Course Superintendent • Greenhouse Manager • Forest Genetics	**Animal Systems** • Animal Geneticist • Aquaculturist • Animal Nutritionist • Animal Scientist • Poultry Manager • Embryo Technologist • Veterinarian • Feed Sales Representative • Artificial Insemination Technician	**Natural Resource Systems** • Wildlife Manager or Technician • Water Monitoring Technician • Park Manager or Technician • Natural History Interpreter • Fish and Game Officer • Forest Worker or Logger • Forest Manager or Technician	**Environmental Service Systems** • Pollution Prevention and Control Manager • Environmental Sampling Technician • Health and Safety Sanitarian • Hazardous Materials Handler • Water Environment Manager • Toxicologist • Solid Waste Disposer/Recycler • Environmental Compliance Assurance Manager
Food Products and Processing Systems • Food Scientist • Bacteriologist • Food and Drug Inspector • Toxicologist • Biochemist • Meat Cutter-Grader • Product Buyer • Meat Processor	**Power, Structural and Technical Systems** • Remote Sensing Specialist • Global Positioning System Technician • Electronics Systems Technician • Agricultural Engineer • Recycling Technician • Equipment Parts Manager • Machinist • Communications Technician	**Agribusiness Systems** • International Agri-Marketing Specialist • Agricultural Loan Officer • Agricultural Commodity Broker • Farm/Ranch Manager • Agricultural Economist • Livestock Buyer/Seller • Feed/Farm Supply Store Manager • Agricultural Products Buyer • Agricultural Salesperson	

High school courses for supporting knowledge in

Agriculture, Food, & Natural Resources careers:

Agriculture: All Ag classes	**English:** Real World Writing	**Science:** Chemistry Advanced Biology
Art: Graphic Design	**Foreign Language:** Spanish	**Work-based Learning:** Youth Apprenticeship Supervised Work Experience
Business: Computer Applications Intro to Business Accounting Business & Personal Law Intro to Marketing	**Math:** Pre-Calculus **Tech Ed:** Intro to Welding	**Co-Curricular:** FFA Forensics

Architecture & Construction

This diverse Career Cluster prepares learners for careers in designing, planning, managing, building and maintaining the building environment. People employed in this cluster work on new structures, restorations, additions, alterations and repairs.

The Three Pathways

Design/Pre-Construction	**Construction**	**Maintenance/Operations**
• Architect • Architectural Engineer • Computer Information Systems Manager/Designer • Computer-Aided Drafter (CAD) • Landscape Designer • Renderer (traditional and computer) • Surveyor • Urban Planner/Designer	• Carpenter • Electrician • General Contractor • Iron/Metalworker • Pipe Fitter • Project Inspector • Project Manager • Safety Director	• Boilermaker • Demolition Engineer • Equipment Operator • Highway Worker • Maintenance Planner/Scheduler • Millwright • Specialty Contractor • Thermal Control Technician

High school courses for supporting knowledge in Architecture & Construction careers

Agriculture Landscape Management Natural Resources GPS and GIS Personal Leadership Career Leadership	**English:** Real World Writing	**Technology Education:** Materials and Processing Intro to Auto Cad Woods I and 2 Industrial Design Building and Construction Home & Auto Repair
Art: Sculpture Drawing Industrial Design	**Math:** Pre-Calculus Technical Math	**Work-based Learning:** Youth Apprenticeship Supervised Work Experience
Business: Business & Personal Law Personal Finance Accounting	**Science:** Physics	**Co-Curricular Activities:** Visioneers FFA

Arts, A/V Technology & Communications

Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.

The Six Pathways

Audio and Video Technology and Film • Audio-visual Systems Technician • Sound Board Operator • Lighting Technician • Install/installation Engineer/rigger • Service Technician • Field Technician	**Journalism and Broadcasting** • Broadcast Field Supervisor • Broadcast and Sound Technician • Camera Operator • News Analyst • Reporter • Correspondent	**Performing Arts** • Actor/actress • Set Designer • Stage Crew • Musician • Singer • Conductor • Dance Instructor • Voice Instructor • Playwright • Instrumental Music Educator
Visual Art • Painter • Sculptor • Print Maker • Illustrator • Fashion Artist • Cartoonist • Animator • Graphic Designer • Commercial Photographer • Art Director	**Printing Technology** • Computer Typography and Composition Operator • Desktop Publishing Specialist • Graphics Equipment Operator • Lithographer Paper • Salesperson Plate Maker • Preproduction Technician • Printing Equipment Operator • Production Coordinator • Production Manager • Web Page Designer	**Telecommunications** • Customer Service Representative • Network Designer Sales Representative • Systems Designer • Telecommunication Computer Programmer and Systems Analyst • Telecommunication Equipment:Cable, Line Repairer and Installer • Telecommunication Technician

High school courses for supporting knowledge in Arts, A/V Technology & Communications careers

Agriculture: Landscape Management	**Business:** Computer Applications Intro to Web Design	**Music:** Band Choir	**Work-based Learning:** Youth Apprenticeship Supervised Work Experience
Art: Industrial Design Graphic Design Drawing Painting Ceramics Sculpture	**English:** Any writing course	***Technology Education*** *Intro to Auto Cad*	**Co-Curricular:** Yearbook Forensics Visioneers FFA

Business, Management & Administration

Business Management and Administration careers encompass planning, organizing, directing and evaluating business functions essential to efficient and productive business operation. Business Management and Administration career opportunities are available in every sector of the economy.

The Six Pathways

Management • Entrepreneur • General Manager • Public Relations Manager • Hospital Manager • Risk Manager	**Business Analysis** • Budget Analyst • Compensation Analyst • Cost Analyst • Database Business Analyst • Investment Analyst • Marketing Analyst	**Human Resources** • Human Resources Manager • Compensation and Benefits Manager • Training and Development Specialist • Labor and Personnel Specialist • Equal Employment Opportunity Specialist • OSHA/ADA Compliance Officer • Meeting and Convention Planner • Personnel Recruiter
Business Financial Management and Accounting • Accountant • Adjuster • Auditor • Bookkeeper • Billing Supervisor • Price Analyst • Treasurer • Accounts Payable Clerk • Billing Clerk	**Administration and Information Support** • Administrative Assistant • Executive Assistant • Office Manager • Desktop Publisher • Customer Service Assistant • Data Entry Specialist • Receptionist • Word Processor	**Marketing** • Marketing Manager • Store Manager • Customer Service Supervisor • Retail Salesperson • Wholesale or Retail Buyer • Public Relations Specialist • Advertising Agent • Telemarketer

High school courses for supporting knowledge in Business, Management & Administration careers

Agriculture Agribusiness Management Personal Leadership Career Leadership	**Art** Graphic Design Drawing Painting	**English** Any writing course	**Co-Curricular Activities** Student Council FFA Forensics Visioneers
Foreign Language Spanish	**Business** Computer Applications Intro to Business Intro to Business Law Intro to Marketing Accounting	**Work-based learning Opportunities** Youth Apprenticeship Supervised Work Experience Job Shadows	

Education & Training

Planning, managing and providing education and training services, and related learning support services.

The Three Pathways

Teaching and Training	Professional Support Services	Administration and Administrative Support
• Preschool or Kindergarten Teacher, Aide • Elementary Teacher, Aide • Secondary Teacher, Aide • Special Education Teacher, Aide • College/University Lecturer Professor • Management Development Trainer • Human Resource Trainer • Coach • Child Care Director • Early Childhood Teacher, Assistant	• Psychologists—Clinical, Developmental, Social • Social Worker • Parent Educator • Counselor • Speech-Language Pathologist and Audiologist	• Superintendent • Principal • Director of Training • Supervisor • Instructional Coordinator • Education Researcher • College President • Dean • Curriculum Developer • Instructional Media Designer

High school courses for supporting knowledge in Education & Training careers

Agriculture Personal Leadership Career Leadership	**English** Literature courses Writing courses	**Social Studies** Psychology	**Co-Curricular Activities** Student Council Forensics FFA Educators Rising
Art Any art class (art education)	**Foreign Language** Spanish	**Work-based Learning Opportunities** Teacher Assistant Job Shadow Youth Apprenticeship	

Finance

The Finance Cluster prepares learners for careers in financial and investment planning, banking, insurance, and business financial management.

Financial and Investment Planning	**Business Financial Management**	**Banking and Related Services**	**Insurance Services**
• Personal Financial Advisor • Tax Preparer • Sales Agent for Securities and Commodities • Investment Advisor • Brokerage Clerk • Development Officer	• Accountant • Financial Analyst • Controller • Chief Revenue Agent • Auditor • Economist • Tax Examiner • Collector • Revenue Agent	• Loan Officer • Bill and Account Collector • Teller • Loan Processor • Data Processor • Internal Auditor • Title Researcher and Examiner • Debt Counselor	• Claims Agent • Examiner • Claims Clerk • Insurance Appraiser • Underwriter • Actuary • Sales Agent • Customer Service Agent • Processing Clerk

High school courses for supporting knowledge in Finance careers

Agriculture Agribusiness Management	**Business:** Accounting Personal Finance Computer Applications Business and Personal Law	**Math:** Algebra 2 Pre-Calculus	**Work-Based Learning Opportunities** Youth Apprenticeship Supervised Work Experience
Co-Curricular Activities Forensics FFA			

Government & Public Administration

Executing governmental functions to include Governance; National Security; Foreign Service, Planning; Revenue and Taxation; Regulations; and Management and Administration at the local, state, and federal levels.

The Seven Pathways

Governance • Legislative Assistant • Congressional Aide • Lobbyist • Country Commissioner • Senator • Representative • Mayor • Governor • Lieutenant Governor	**Public Management and Administration** • Court Administrator or Clerk • City or County Clerk • City Council Member • City Manager • Purchasing Manager	**Regulation** • Investigator/Examiner • Code Inspector • Bank Examiner • Election Supervisor • Child Support Officer • Cargo Inspector • Border Inspector • Aviation Safety Officer
National Security • Combat Control Officer • Missile and Space Systems Officer • Submarine Officer • Infantry Officer and Specialist • Air Defense Artillery Officer • Military Intelligence Officer • Cryptographer	**Revenue and Taxation** • Tax Examiner • Tax Clerk • Revenue Agent • Internal Revenue Investigator • Auditor	**Planning** • Planner • Census Enumerator • Census Clerk • Federal Aid Coordinator • Economic Development Coordinator • Chief of Vital Statistics
Foreign Service • Foreign Service Officer • Diplomatic Officer • Consular Officer • Ambassador • Diplomatic Courier		

High school courses for supporting knowledge in Government & Public Administration careers

Business Business and Personal Law Accounting Computer Apps 1 Personal Finance Intro to Business	**Foreign Language** Spanish	**Work-Based Learning Opportunities** Youth Apprenticeship-Finance Youth Apprenticeship-STEM
English Writer's Workshop Real World Writing	**Social Studies** Political Science Psychology	**Co-Curricular Activities** Student Council FFA Forensics

Health Science

Planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.

The Five Pathways

Health Informatics • Admitting Clerk • Data Analyst • Healthcare Administrator • Health Information Coder • Medical Biller • Transcriptionist	**Diagnostic Services** • Geneticist • Medical Lab Technologist • Nuclear Medicine Technologist • Pathologist • Phlebotomist • Radiologic Technologist	**Therapeutic Services** • Athletic Trainer • Certified Nurse Assistant • Dental Hygienist • Paramedic • Pharmacist • Physical Therapist • Registered Nurse • Respiratory Therapist • Surgical Technician • Physician
Support Services • Biomedical Clinical Engineer • Central Services Technician • Dietary Technician • Hospital Maintenance Engineer • Materials Management Technician • Medical Information Technologist • Medical Librarian • Reimbursement Specialist	**Biotechnology Research and Development** • Bioinformatics Specialist • Biostatistician • Molecular Biologist • Pharmacist • Microbiologist • Research Assistant	

High school courses for supporting knowledge in Health Science careers

Agriculture	**Math**	**Science**	**Work-Based Learning Opportunities**
Vet Science Food Science	Pre-Calculus	Anatomy & Physiology Microbiology Advanced Biology Chemistry Medical Terminology	Youth Apprenticeship-Health Science Health Career Connections

Hospitality & Tourism

Hospitality & Tourism encompasses the management, marketing and operations of restaurants and other foodservices, lodging, attractions, recreation events and travel related services.

The Four Pathways

Restaurant and Food/Beverage Services	**Lodging**	**Travel and Tourism**	**Recreation, Amusements and Attractions**
• Food and Beverage Manager • Catering and Banquets Manager • Maitre'd • Restaurant Owner • Executive Chef • Pastry and Specialty Chef • Cook • Bartender and Server • Banquet Setup Employee • Room Service Attendant	• Front Office Manager • Executive Housekeeper • Director of Sales and Marketing • Director of Operations • Rooms Division Manager • Front Desk Supervisor • Reservations Supervisor • Bell Captain • Sales Professional • Reservationist • Guest Room Attendant	• Event Planner • Convention Services Manager • Destination Manager • Heritage Tourism Developer • Interpreter • Meeting Planner • Tour Guide • Tour Operator • Travel Agent • Tour and Ticket Reservationist • Tourism Marketing Specialist • Welcome Center Supervisor	• Club Manager • Club Event Planner • Club Membership Developer • Parks and Garden Director • Resort Instructor • Gaming and Casino Supervisor • Fair/Festival Event Planner • Fairs/Festival Promotional Developer

High school courses for supporting knowledge in Hospitality & Tourism careers

Agriculture:	**Art**	**Business**	**Social Studies**
Food Science Feeding America	Graphic Design	Accounting Business Law Marketing Hospitality Management	Psychology
Science	**Work-Based Learning Opportunities**	**Co-Curricular Activities**	
Chemistry	Youth Apprenticeship-Hospitality, Lodging & Tourism	FFA Forensics	

Human Services

Preparing individuals for employment in career pathways that relate to families and human needs. Hospitality & Tourism encompasses the management, marketing and operations of restaurants and other foodservices, lodging, attractions, recreation events and travel related services.

The Five Pathways

Early Childhood Development and Services • Assistant Director-Childcare Facilities • Childcare Assistant/Worker • Director, Childcare Facilities • Educator for Parents • Nanny • Preschool Teacher • Teacher's Assistant	**Personal Care Services** • Cosmetologist • Embalmer • Funeral Attendant • Funeral Director • Nail Technician • Personal Trainer • Skin Care Specialist • Spa Attendant	**Consumer Services** • Market Researcher • Employee Benefits Representative • Customer Service Representative • Consumer Research Department Representative • Consumer Credit Counselor • Consumer Affairs Officer • Consumer Advocate
Counseling and Mental Health Services • Career Counselor • Clinical and Counseling Psychologist • HIV/Aids Counselor • Marriage, Child and Family Counselor • Mental Health Counselor • Rehabilitation Counselor • Residential Counselor • School Counselor • Substance Abuse and Behavioral Disorders Counselor	**Family and Community Services** • Adult Day Care Worker • Community Service Director • Coordinator of Volunteers • Director, Religious Activities/Education Programs • Emergency and Relief Worker • Geriatric Service Worker • Grief Counselor • Social and Human Services Assistant • Social Services Worker	

High school courses for supporting knowledge in Human Services careers

Business Business Law Marketing Personal Finance	**English** Real World Writing Writer's Workshop	**Social Studies** Psychology
Science Anatomy & Physiology Chemistry	**Co-Curriclar Acitivities** FFA Forensics	

Law, Public Safety, Corrections & Security

Planning, managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services.

The Five Pathways

Correction Services • Warden • Jail Administrator • Program Coordinator and Counselor • Public Information Officer • Correctional Trainer • Case Manager • Community Corrections Practitioner • Probation/Parole Officer • Corrections Officer • Detention Deputy • Youth Services Worker	**Security and Protective Services** • Security Director • Security Systems Designer • Physical Security Specialist • Information Systems Security Specialist • Computer Forensics Specialist • Private/Corporate Investigator • Security Trainer/Educator • Loss Prevention Specialist • Security Systems Technician • Certified Security Officer • Armored Car Guard	**Emergency and Fire Management Services** • Emergency Management and Response Coordinator • Emergency Planning Manager • Emergency Medical Technician • Fire Fighter • Hazardous Materials Responder • Dispatcher • Training Officer • Rescue Worker
Legal Services • Judge • Magistrate • Attorney • Case Management Specialist • Legal Assistant • File and Document Manager • Investigator • Law Clerk	**Law Enforcement Services** • Criminal Investigator and Special Agent • Immigration and Customs Inspector • Federal Marshall • Police Detective and Criminal Investigator • Police, Fire and Ambulance Dispatcher • Sheriff and Deputy Sheriff • Private Detective and Investigator • Police and Patrol Officer • Evidence Technician	

High school courses for supporting knowledge in Law, Public Safety, Corrections & Security careers

Business Business & Personal Law Personal Finance	**Agriculture** Career Leadership **Social Studies** Psychology	**Work-Based Learning Opportunities** Youth Apprenticeship-STEM Youth Apprenticeship-IT
Science Chemistry Physics Anatomy & Physiology Microbiology	**Co-Curricular Activities** FFA Forensics Student Council	

Manufacturing

Planning, managing and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.

The Six Pathways

Production • Assemblers • Automated Manufacturing Technicians • Bookbinders • Calibration Technicians • Electromechanical Equipment Assemblers • Extruding and Drawing Machine Operators • Medical Appliance Makers • Tool and Die Makers	**Manufacturing Production Process Development** • Design Engineers • Industrial Engineers • Labor Relations Managers • Manufacturing Engineers • Power Generating and Reactor Plant Operators • Precision Inspectors, Testers and Graders • Process Improvement Technicians • Production Managers	**Logistics and Inventory Control** • Dispatchers • Freight, Stock and Material Movers • Industrial Truck and Tractor Operators • Logistical Engineers • Logisticians • Material Handlers • Process Improvement Technicians • Traffic Managers
Quality Assurance • Calibration Technicians • Inspectors • Lab Technician • Process Control Technicians • Quality Control Technicians • Quality Engineers	**Maintenance, Installation and Repair** • Biomedical Equipment Technicians • Communication System Installers/Repairers • Instrument Control Technicians • Job/Fixture Designers • Laser Systems Technicians • Meter Installers/Repairers • Security System Installers/Repairers	**Health, Safety and Environmental Assurance** • Environmental Engineers • Environmental Specialists • Health and Safety Representatives • Safety Coordinators • Safety Engineers • Safety Team Leaders • Safety Technicians

High school courses for supporting knowledge in Manufacturing careers

Business Computer Applications	**Math** Tech Math Pre-Calculus	**Work-Based Learning Opportunities** Youth Apprenticeship-Manufacturing
Tech Ed Manufacturing Welding Power, Energy, Transportation Small Engines Woods 1 & 2	**Co-Curricular Activities** FFA Forensics	

Marketing, Sales & Service

Planning, managing, and performing marketing activities to reach organizational objectives.

The Seven Pathways

Management and Entrepreneurship • Chief Executive Officer • Entrepreneur • Franchisee • Independent Distributor • Owner • Partner • President • Small Business Owner	**E-Marketing** • Copywriter/Designer • Customer Support Specialist • E-Commerce Director • E-Merchandising Manager • Fulfillment Manager • On-Line Market Researcher • Site Architect	**Professional Sales and Marketing** • Account Executive • Broker • Field Representative • Regional Sales Manager • Retail Sales Specialist • Sales Executive • Technical Sales Specialist
Buying and Merchandising • Clerk • Department Manager • Merchandise Buyer • Merchandising Manager • Operations Manager • Retail Marketing Coordinator • Sales Associate • Store Manager	**Marketing Communications and Promotion** • Advertising Manager • Art/Graphics Director • Creative Director • Interactive Media Specialist • Marketing Associate • Public Relations Manager • Sales Representative	**Marketing Information Management and Research** • Brand Manager • Database Manager • Director of Market Development • Product Planner • Research Associate • Strategic Planner, Marketing
Distribution and Logistics • Distribution Coordinator • Inventory Manager/Analyst • Logistics Analyst/Engineer • Logistics Manager • Materials Manager • Shipping/Receiving Administrator • Shipping/Receiving Clerk • Warehouse Manager		

High school courses for supporting knowledge in Marketing, Sales & Service careers

Art Graphic Design Yearbook Photography	**Business** Business & Personal Law Computer Applications Entrepreneurship Marketing	**Co-Curricular Activities** FFA Forensics Visioneers
Math Pre-Calculus **Social Studies** Psychology	**Agriculture** Career Leadership Agribusiness	**Work-Based Learning Opportunities** Youth Apprenticeship-Marketing

Science, Technology, Engineering, & Mathematics

Planning, managing, and providing scientific research and professional and technical services (e.g., physical science, social science, engineering) including laboratory and testing services, and research and development services.

The Two Pathways

Science & Mathematics	**Engineering and Technology**
• Biologist • Chemist • Geneticist • Physicist • Quality-Control Scientist • Mathematician • Statistician • Research Technician • Science Teacher • Lab Technician	• Aeronautical Engineer • Architectural Engineer • Biotechnology Engineer • Chemical Engineer • Civil Engineer • Construction Engineer • Industrial Engineer • Mechanical Engineer • Materials Lab and Supply Technician • Quality Technician

High school courses for supporting knowledge in Science, Technology, Engineering, & Mathematics careers

Math	**Technology Education**	**Co-Curricular Activities**
Pre-Calculus	Intro to AutoCad Architectural Design	FFA Forensics
Science	**Agriculture**	**Work-Based Learning Opportunities**
Anatomy & Physiology Microbiology Physics Chemistry Biology	Career Leadership Food Science Plant Science Vet Science	Youth Apprenticeship-Engineering Youth Apprenticeship-Bioscience

Transportation, Distribution & Logistics

Planning, management, and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

The Six Pathways

Transportation Operations • Transportation Managers • Pilots • Locomotive Engineers • Flight Engineers and Attendants • Truck and Bus Drivers • Air traffic Controllers • Ship and Boat Captains • Aircraft Cargo Handling Supervisors	**Logistics Planning and Management** • Logisticians • Logistics Managers • Logistics Engineers and Analysts • Consultants • International Logistics Specialists	**Warehousing and Distribution Center Operations** • Storage and Distribution Managers • Warehouse Managers • Industrial and Packaging Engineers • Shipping and Receiving Supervisors • Production, Planning, and Expediting Clerks • Freight and Material Movers and Supervisors
Facility and Mobile Equipment Maintenance • Industrial Equipment Mechanic • Electricians and Technicians • Facility Maintenance Managers and Engineers • Mobile Equipment Maintenance Managers, Technicians and Mechanics • Diesel Engine Specialists	**Transportation Systems/Infrastructure Planning, Management and Regulations** • Traffic Engineers and Technicians • Urban and Regional Planners • Vehicle and System Inspectors • Federal, State, and Local Government Transportation Agency Careers	**Sales and Service** • Reservation and Travel Agents • Cargo and Freight Agents • Customer Service Managers and Representatives • Customer Order and Billing Supervisors

High school courses for supporting knowledge in Transportation, Distribution & Logistics careers

Business Intro to Business Personal Finance	**Science** Physics Chemistry	**Agriculture** Career Leadership GPS/GIS
Math Tech Math Pre-Calculus	**Tech Ed** Power, Energy, and Transportation Small Engine Repair Intro to Welding	**Co-Curricular Activities** FFA Forensics **Work-Based Learning Opportunities** Youth Apprenticeship-Transportation, Distribution, Logistics