

Courses Offered at Iowa-Grant 2017-2018

MATHEMATICS

Algebra I (First ½)
Algebra I (Second ½)
Algebra I (Full Course)
Geometry
Algebra II
Trigonometry & Analytical Geometry
Pre-Calculus
Trigonometry/Pre-Calculus
Probability & Statistics
AP Calculus
Applied Math

SCIENCE

Anatomy & Physiology
AP Biology
Physical Science
Biology
Zoology
Ecology
Intro. to Earth Science
Chemistry
Physics

SOCIAL STUDIES

Economics
US History Survey: Government
Introduction to Sociology
US History
World Geography
World Civilizations I
World Civilizations II
Wisconsin
AP US History
Academic Decathlon

LANGUAGE ARTS

Freshmen English
Sophomore English
Junior English
Senior English
Workplace Communications
AP English Literature & Composition
Applied Journalism ***Not an English Credit***

TECHNOLOGY EDUCATION

Construction
Independent Research in Tech Ed
Woodworking I
Woodworking II
Multi-Media Photo and Video Editing
Web Page Design & Management
Pre –Engineering: Intro to Engineering Design
Principals of Engineering
Engineering Design & Development (SWTC)

AGRICULTURE EDUCATION

Introduction to Agricultural Science and Technology
Intro. Agricultural Welding & Metal Fabrication
Welding II
Pre-Veterinary Science & Small Companion Animal
Natural Resource Management
Agribusiness Management
Consumer Equipment Maintenance & Repair
Veterinary Science
Greenhouse Management & Landscape Design
Land & Soil Management
Plant Science
Food Science

ART

Art Survey I & II
Drawing & Painting I & II
Digital Photography
Ceramics I & II
Hands on Art History
Computer Graphics
Art Jewelry & Sculpture
Studio Art I & II

BUSINESS EDUCATION

Accounting I
Accounting II
Principles of Business, Marketing & Finance I
Principles of Business, Marketing & Finance II
Personal Finance
Business Communications
Computer Essentials

FOREIGN LANGUAGE

Spanish I
Spanish II
Spanish III
Spanish IV

HEALTH

Health

Music

Concert Band

Jazz Band

Guitar Exploration I

Guitar Exploration II

Concert Choir

PHYSICAL EDUCATION

Physical Education

Strength & Conditioning

TUTORING

Elementary & Middle School Tutoring



AGRICULTURE EDUCATION



Introduction to Agricultural Science and Technology

(1 Credit) Agriculture I is a full year course, which is geared for the first year or beginning agriculture student. Course materials cover a wide range of agricultural topics and issues. Unit content covers areas such as weed and crop identification, soils and animal science, beginning carpentry, introduction to welding, small gasoline engines, plant growth, biotechnology, precision farming and natural resource management. Students are also encouraged to become part of the FFA Organization. Course fees will be charged for safety glasses and project materials.

Introduction to Agriculture Welding and Metal Fabrication (Offered for Southwest Wisconsin Technical College Advanced Standing Credit)

(1/2 Credit) Introduction to Agriculture Welding and Metal Fabrication is a semester long course geared toward sophomore, junior and senior aged students. Course topics will include building skills in Shielded Metal Arc Welding (Stick Welding), Gas Metal Arc Welding (MIG or Wire Feed Welding), Tungsten Metal Arc Welding (TIG welding), and Oxy-Acetylene Welding. Students will also gain knowledge in areas of welding different alloy metals, project construction, and careers. Students will be required to construct a project using metal. Students are also encouraged to become part of the FFA Organization. Course fees will be charged for safety glasses and project materials.

Welding II (Offered for Southwest Wisconsin Technical College Advanced Standing Credit)

(1/2 Credit) Pre-requisite (Introduction to Welding and Metal Fabrication). Students must be juniors or seniors to be enrolled in this course. In this course, students will learn how to properly design a project as well as create the project through planning, drawing and fabrication phases. Students will be required to analyze and compute measurements, financial situations, and use formulas to solve problems. Students will be charged a nominal fee for project materials. Students are also encouraged to take part in FFA activities.

Pre-Veterinary Science and Small Companion Animal

(1/2 Credit) Pre-Veterinary Science and Animal Care is designed for Sophomore-Senior Aged students who are interested in a career working with large and small companion animals. Course topics will include providing a healthy environment for pets and livestock, handling animals safely, animal genetics and reproduction, marketing livestock and companion animals, identifying proper body condition, disease and disease prevention, and animal nutrition. This course will be a prerequisite for students who wish to take the Veterinary Science course for articulated technical college credit. Students are also encouraged to become part of the local FFA Organization. Course fees may be charged for materials needed for the course.

Natural Resource Management

(1/2 Credit) Natural Resource Management is a course geared for sophomore, junior, and senior level students. Course topics include stream, lake, land, wildlife and watershed management. Students will study the living organisms and the effects agriculture and human use have on the environment. Members of the Natural Resource Management will construct a custom fishing rod and will also complete a unit on taxidermy. Course fees will be charged for taxidermy and rod project materials.

Agribusiness Management (Advanced Standing Credit Agreement with the Wisconsin Technical College System)

(1/2 Credit) This semester long course for sophomores-seniors covers many of the skills associated with the management, marketing and business aspects of agriculture. The curriculum includes marketing, financing, cooperatives, and other business aspects associated with agriculture. Students will also learn about managing personal finances such as borrowing money, taxes, and savings. This course is available for Articulated/Delayed Credit with the Wisconsin Technical College System. Students are encouraged to become part of the FFA Organization.

Consumer Equipment Maintenance and Repair (Transcripted Credit Agreement with the Wisconsin Technical College System)

(1/2 Credit) Students learn the repair concepts of home owner consumer products including Lawn & Garden tractors, riding lawn mowers, snow blowers, string trimmers, and chainsaws. Students learn basic design concepts and the repair and maintenance of the equipment found in everyday residences for home upkeep. Consumer Equipment Maintenance and Repair is a sophomore thru senior level, quarter long course which covers many of the topics associated. Students are encouraged to become part of the FFA Organization. Course fees will be charged for safety glasses and project materials.

Veterinary Science (Transcripted Credit Agreement with the Wisconsin Technical College System)

(1/2 Credit) Juniors and seniors taking this course will learn many different skills associated with the livestock and small animal science and veterinarian area. The course will cover topics such as reproduction and animal husbandry, systems of the living animal, disease control and prevention, feeding and nutrition, and marketing of livestock products, small animal care, and biotechnology used in the animal science area. Students are also encouraged to become part of the FFA Organization.

Prerequisite: Pre-Veterinary Science

Greenhouse Management and Landscape Design

(1/2 Credit) Greenhouse Management and Landscape Design is a sophomore-senior level, semester long course which covers the growth and management of greenhouse vegetable and ornamental plants and crops. Students will also take part in designing and management of home and business landscapes. This course will put the students in the roll of business manager and greenhouse worker. Students enrolled in the course will make decisions regarding pest management, annual floral arrangements, marketable combination baskets, and fertilizer applications. Students will be required to take part in selling plants and working with customers during the spring bedding plant sale in May. (Students will be compensated for their hours of work.) Students are encouraged to become part of the FFA Organization.

Land and Soil Management (Transcripted Credit Agreement with the Wisconsin Technical College System)

(1/2 Credit) This course is designed to provide fundamental knowledge of soils and growth media to sophomore, junior, and senior students. Course topics include soil formation and development, soil components, soil profile, soil classification, and soil conservation. Participants will experience soils

concepts through the completion of hands-on activities. Students interested in careers in agriculture, construction, reclamation, and engineering will benefit from the information covered in this course. Student activities will include soil management activities in the school gardens and greenhouses. Students are encouraged to take part in FFA Activities.

Plant Science (Transcripted Credit Agreement with the Wisconsin Technical College System)

(1/2 Credit) This course is designed to provide all students with fundamental knowledge of plant components and their functions. Topics include pollinating and propagating plants, germinating seeds, plant nutrients, and factors affecting photosynthesis, respiration, and transpiration. Participants will experience plant components and their functions through the completion of hands-on activities. These activities include working in the school gardens and greenhouses producing locally grown food for the school lunch program. Students are encouraged to take part in FFA Activities.

Food Science

(1/2 Credit) Food Science is geared for sophomore, junior, and senior level students to provide knowledge of food growth, processing and nutrition. Students enrolled in this course will learn about the relationships among agriculture, science, food, nutrition, biology, microbiology, food preservation and processing and packaging. Students will also explore the characteristics of safe food and the harmful effects of microorganisms. Each student will also develop a food product from the planning stages to the packaging of their product. Students are also encouraged to take part in FFA activities. Students will be charged a nominal fee for the course.



ART

Art Survey I & II

(1/2 credit) . This is an excellent class for students who like to work with many different art mediums such as painting, drawing, sculpture, ceramics, etc.

This is a multiple medium art class focusing on the Elements of Art and Design, contemporary artists, art movements, and experimentation with a wide variety of art materials. A student may take this class for a second time with the permission of the instructor and explore the same mediums and styles in greater depth and independence.

Drawing and Painting I & II

(1/2 credit) Focused on developing drawing and painting skills, Drawing and Painting is a specialized class for the student who likes to draw. Drawing and Painting not only focuses in on learning different techniques, from the realistic to the abstract, but also on learning how to use other drawing and painting mediums such as pen and ink, drawing pencils, mechanical pencils, pastels, charcoal, oil pastels, watercolor and acrylic paints. A student may take this class for a second time with the permission of the instructor and explore the same mediums and styles in greater depth and independence.

Prerequisite: Art Survey encouraged but not required.

Digital Photography

(1/2 credit) In this class, students will learn the basics of digital photography using SLR digital cameras (point & shoot or smartphone cameras are inadequate for the course). Students will then process the photographs using PhotoShop. Finished photographs will then be used in other design and publishing programs such as InDesign. Emphasis will be the use of manual camera settings of aperture, shutter speed, and focus. Class size is limited to 10 due to limited school owned cameras. Students owning or having access to high-quality SLR cameras (ie Canons/Nikon etc. with exchangeable lenses) will be given the first opportunities. Students will be required to purchase a camera card and a dedicated thumb drive.
Prerequisite: At least one art course successfully completed.

Ceramics I & II

(1/2 credit) With an emphasis on ceramics, you'll gain a clearer understanding of the functional and sculptural. We will work with hand-building techniques such as coiling, slab building, and wheel thrown work.

A student may take this class for a second time with the permission of the instructor and explore the same mediums and styles in greater depth and independence.

Class size is limited.

Prerequisite: Art Survey encouraged but not required.

Hands on Art History

(1/2 credit) Art is one of the things that make us human. The class will explore the history of human expression starting with the contemporary art and working backward to prehistory. Students will create artworks influenced by the great work of the past to understand the time and place that generated the masterworks. A wide range of art mediums and techniques (painting, drawing, sculpting etc.) will be explored.

Computer Graphics

(1/2 credit) In this class, students will learn the basics of graphic design using the computer programs Adobe Illustrator, Adobe Photoshop, Adobe InDesign and Macromedia Flash. In Flash you will learn how to design your own animations. Class size is limited.

Prerequisite: At least one art course successfully completed.

Art Jewelry & Sculpture

(1/2 credit) Some of the earliest art forms are personal adornment and small object. Students will work with lost wax casting (rings), sheet metal (pendants), and beading, hemp jewelry and chain mail (necklaces and bracelets) and the small-scale sculpture including sewn objects. Heavy emphasis on creative use of recycled materials in new and unique ways.

Art Survey encouraged but not required.

Studio Art I & II

(1/2 credit) This class is a chance to problem solve with art as the medium. Students will be presented with a challenging subject, problem, or medium to explore. Students will be encouraged to reach beyond comfort zones to explore and express new imagery in new mediums.

A student may take this class for a second time with the permission of the instructor and explore the mediums and styles in greater depth

Prerequisite: Minimum of 2 art class in which the student receives 88% or better.



BUSINESS EDUCATION



Accounting I (Transcribed Credit Agreement with the Wisconsin Technical College System)

(1 credit) This course provides an understanding of the basic principles of the double-entry accounting system. Activities include recording and posting transactions, preparing work sheets and financial statements, preparing payroll and tax data, managing a checking account and reconciling a bank statement, and developing the essential business traits of accuracy, neatness, orderliness, thoroughness, and responsibility. Students will also become acquainted with career opportunities in business. This course is open to sophomores, juniors, and seniors. Students who plan to major or minor in any business-related degree program should definitely be taking this course in high school! *Up to four university elective credits can be earned through this class which can be transferred to any university!!*

Accounting II

(1 credit) Accounting II is a continuation of Accounting I – it will result in a completion of the Fitness Junction simulation and the Multi-Column Journal textbook. We will explore the world of corporate accounting. In addition, QuickBooks accounting software will be used to do the accounting for a business. This class will take you one step closer to a job as a bookkeeper, or prepare you for college accounting.

Prerequisite: Accounting I

Accounting III (Independent Study)

(1 Credit) Accounting III expands on topics introduced in the other courses while adding new topics about time value of money, management accounting, cost accounting, not-for-profit accounting, and financial analysis. A unique focus on financial literacy and emphasis on character, as well as actual companies selected by students will prepare them for accounting challenges.

Prerequisite: Accounting II

Principles of Business, Marketing & Finance I

(1/2 credit) This course will present business concepts that are vitally important in today's workplace. The basics of business, marketing, and finance are introduced in an easy-to-understand manner that helps students connect the concepts of business to their everyday life. Students will learn basic principles and concepts about commerce, which can help them become more valuable as employees. Becoming knowledgeable about how business operates and contributes to our society can assist students in becoming better citizens. Understanding how the economy operates can help make students better consumers. This course is open to all students.

Principles of Business, Marketing & Finance II

(1/2 credit) Additional highlights of this course will include contemporary business topics, such as global business, ethics, and business law, to help develop student's awareness of business information that is needed in today's workplace. Digital citizenship will be explained in detail to prepare students for

professional responsibilities in school and in a career. Math features will provide an opportunity for students to learn and apply math concepts in a context that applies to real-world scenarios. Career Success activities will help students to prepare and apply for a job, as well as begin their first day in a work environment. This course is open to all students once prerequisite has been met.

Prerequisite: Principles of Business, Marketing & Finance I

Personal Finance (Advanced Standing Agreement with the Wisconsin Technical College System)

(1/2 credit) Students will be provided with an understanding of the concepts and principles involved in managing one's personal finances. Topics will include savings and budgeting, credit and debt, financial planning and insurance, income and taxes. Students will also learn key personal financial skills and demonstrate competence in an online simulated world. Class members will participate in the Southwest Wisconsin Interactive Financial Literacy Event in the Spring. This class is the beginning of a student's journey to becoming an informed and responsible consumer. Open to juniors and seniors. ***Required class for graduating Class of 2020.**

Business Communications (Advanced Standing Credit Agreement with the Wisconsin Technical College System)

(1/2 credit) Business Communications is a course designed to help students understand the basics of communicating in the workplace. Students will prepare business correspondence, deliver oral presentations, and use electronic writing tools. Developing and maintaining a resume and properly filling out a job application will also be a useful component of this course. Students will also build their interviewing skills and develop sensitivity in communicating with a diverse workforce. Students will learn proper business etiquette, non-verbal communication and the course will conclude with the student participating in a real interview with human resource personnel or a store manager. Open to seniors.

Computer Essentials (Transcripted Credit Agreement with Wisconsin Technical College System)

(1/2 Credit) Students will become familiar with the use of a word processor, a spreadsheet, presentation software, the Internet and email, and file management. The students will know the basics of each application, and be able to create professional-looking documents. The student will be able to apply these applications to their field of study, also. Open to all students.

FOREIGN LANGUAGE



Spanish I

(1 credit) Spanish is offered to all high school students. This course is designed to teach students to understand, speak, read and write **Basic** Spanish. Spanish culture and customs are studied and students participate in prepared and original conversations. The basic points of grammar are learned. Any student may sign up. The student **must pass** the first semester of a skinny, or the first half of a Block, in order to continue in second semester or the 2nd half of a Block.

Earning a 75% average or higher in SPANISH I is a prerequisite for Spanish II.

Spanish II

(1 credit) This course is offered to all high school students who have completed Spanish I. Designed as a

continuation of Spanish I, this course will further the students' understanding of the language, its people, their culture and customs. Students participate in speaking, reading, and writing exercises, prepared and original. Further points of grammar are learned. The student **must pass** the first semester of a skinny, or the first half of a Block, in order to continue in second semester or the 2nd half of a Block.

Earning a 75% average or higher in SPANISH II is a prerequisite for Spanish III.

Spanish III

(1 credit) Spanish III is for students who have successfully (C or better) completed both Spanish I and II. More advanced points of grammar are learned as the student works with the text and famous Hispanic literature; poems, essays, short stories, etc. Culture is an important component combining knowledge of the Hispanic people and their customs. Commitment to maintain the immersion experience and communicate only in Spanish is required. The student **must pass** the first semester of a skinny, or the first half of a Block, in order to continue in second semester or the 2nd half of a Block.

Earning a 75% average or higher in SPANISH III is a prerequisite for Spanish IV.

Spanish IV

(1 credit) Spanish IV is a continuation of Spanish III, with a comprehensive review of grammar. Students will read Hispanic literature and explore a variety of Hispanic cultures. Students will also advance their knowledge of Spanish vocabulary and investigate career opportunities in the specified area of their choice. These include: Healthcare, Business and Technology, Hospitality and Tourism, Arts and Entertainment, and Agricultural fields of study. Commitment to maintain the immersion experience and communicate only in Spanish is required.

HEALTH

Health

(1/2 credit) Health includes current health concepts and needs, with a concentration in first-aid and safety, personal health, and human growth and development. This is a required class for Freshmen.

LANGUAGE ARTS



Freshmen English

(1 credit) All freshmen are *required* to take this one credit course. It is a survey course that includes units on use of the Instructional Materials Center, writing a research paper, grammar/usage, speech, writing, and various forms of literature. Students are required to keep an in-class journal. Students must receive full credit in freshmen English before they can proceed to sophomore English.

Sophomore English

(1 credit) This *required* course covers various types of writing including the short story, poetry, personal narrative, and expository and persuasive essays. Students receive grammar instruction and cover literary genres such as science fiction, fiction, nonfiction, poetry, drama and legends. Additionally, students receive instruction on the basics of informative and persuasive speaking. Emphasis is placed on both the writing process including editing and revision and the use of speech techniques to present their revised

writing to the teacher and their class. It also includes a study of listening skills, effective language in speech, and the process of writing a research paper. Students must receive credit in Sophomore English before they can proceed to Junior English.

Junior English

(1 credit) This course is designed for juniors. Writings are read, discussed, and evaluated through the use of essay and objective examinations. We read all genres from poetry and novels to drama and short stories. There are occasional projects with oral presentations. Student involvement in interpretation and analysis is necessary. Students are required to keep an in-class journal. Students must receive a full credit of junior English before they can proceed to workplace or business communications.

Workplace Communications

(1/2 credit) This is a half credit English course designed for the student planning on attending a secondary technical school. The areas of study include: grammar, vocabulary, research, speeches, and real-life writing. This class is accredited with Southwest Technical College, and a student could be eligible for credit through SWTC. Workplace Communication is a prerequisite for Business Communications. Open to seniors.

Senior English

(1 credit) This course is **required** for college-bound seniors not enrolled in AP Literature and Composition or Workplace Communication. We read all genres from poetry and novels to drama and short stories. There are projects with oral presentations. Student involvement in interpretation is necessary. A significant writing assignment is required each quarter ranging from research to literary analysis.

AP English Literature and Composition

(1 credit) This senior course is **required if you are not in Senior English** and is designed to help students become skilled readers and critics of imaginative literature. AP English students practice close readings of poetry and prose. They also practice short essay writing in preparation for the AP exam in May. AP English is a reading and writing intensive course with two formal literary papers required as semester projects. A student taking this course is encouraged to take the May exam and **may earn university credit** based on his/her score. It is required that a student have an "A" in junior English and/or teacher consent to be eligible for this course.

Cost: AP Exam approx. \$80

Applied Journalism

(This course is elective and will not count toward 4 required English Credits)

(1/2 credit) This course is designed to help students become producers of competent, useful desktop pages for the school yearbook. Students serve as reporters and learn techniques such as: copy writing; deadline management; page layout; digital photography; and proofreading. Students use Josten's Yeartech Online to create and edit pages for publication. Applied journalism is a time intensive course. Applied journalism students are expected to sell advertisements during the semester to help finance the book **This course is open to students who have completed freshmen English, received an A or B in all English courses, or been granted teacher approval.**



MATHEMATICS



Algebra I (First ½)

(1 credit) This course deals with an introduction to algebra, rational numbers, equations, inequalities, polynomials, factoring, and rational expressions. This class is the first year of the slowed down version of Algebra I (Full Course). Students learn a new lesson every other day. This class covers the first half of the Algebra I book. Algebra I (First ½) is designed to prepare a student for Algebra I (Second ½). This class is open to any student.

Algebra I (Second ½)

(1 credit) This course deals with functions and graphs, graphing linear equations, systems of open sentences, radical expressions, quadratics, statistics and probability, and trigonometry. This class is the second year of the slowed down version of Algebra I (Full Course). Students continue to learn a new lesson every other day. This class covers the second half of the Algebra I book. Successful completion of Algebra I (First ½) and Algebra I (Second ½) is equivalent to a full year of Algebra I (Full Course).

Prerequisite: Successful completion of Algebra I (First ½).

Algebra I (Full Course)

(1 credit) This course deals with an introduction to algebra, rational numbers, equations, inequalities, polynomials, factoring, rational expressions, functions and graphs, graphing linear equations, systems of open sentences, radical expressions, quadratics, statistics and probability, and trigonometry. Students learn a new lesson every day. This is equivalent to a traditional Algebra I course. The entire Algebra I book is covered in the year. This is the most advanced Algebra I course offered to any student. This class is open to any student.

Geometry

(1 credit) Topics covered in this course include geometric figures and facts, principles and the relationship between them. Construction skills are covered along with the use of the tools needed for construction. Postulates and theorems are introduced for use in proofs to develop a better understanding of deductive reasoning. Other topics include parallels, congruent triangles, quadrilaterals, similarity, right triangles and trigonometry, circles, polygons and area, and surface area and volume.

Prerequisite: Successful completion of Algebra I (Full Course) or Algebra I (First ½) and Algebra I (Second ½)

Algebra II

(1 credit) Algebra II is a continuation of Algebra I. Topics covered in this course include matrices, polynomials, radical expressions, quadratic functions, analyzing conic sections, and logarithmic

functions. This course is open to freshmen, sophomores, juniors and seniors. This course is a prerequisite for Physics. This course is required for most college bound students.

Prerequisites: Successful completion of Algebra I (Full Course) or Algebra I (First ½) and Algebra I (Second ½) and Geometry.

Trigonometry & Analytical Geometry

(1 credit) Trigonometry & Analytical Geometry is a continuation of Algebra II. Topics covered in this course include linear relations and functions, system of equations and inequalities, the nature of graphs, polynomial and rational functions, trigonometric functions, inverse trigonometric functions, trigonometric identities and equations, vectors and parametric equations, polar coordinates and complex numbers, conic, exponential, and logarithmic functions. This course is recommended for college bound students.

Prerequisites: Successful completion of Algebra I (Full Course) or Algebra I (First ½) and Algebra I (Second ½), Geometry, and Algebra II.

Pre-Calculus

(1 credit) This is a course designed for college bound students. It is especially important for students continuing their education in college in the fields of mathematics, engineering, accounting, and related scientific fields. This is a much more rigorous course in which both trigonometric and pre-calculus topics are taught. This course is specifically designed for students who want to take AP Calculus their senior year or for seniors who wish to get through Pre-Calculus. Topics covered in this course from trigonometry include linear relations and functions, system of equations and inequalities, the nature of graphs, polynomial and rational functions, trigonometric functions, inverse trigonometric functions, trigonometric identities and equations, vectors and parametric equations, polar coordinates and complex numbers, conic, exponential, and logarithmic functions. Topics covered in this course from Pre-Calculus include a brief introduction to functions, graphs, limits, differentiation, application of derivative, exponential and logarithmic functions, and integration.

Prerequisites: Successful completion of Algebra I (Full Course) or Algebra I (First ½) and Algebra I (Second ½), Geometry, Algebra II, and Trigonometry & Analytical Geometry.

Trigonometry/Pre-Calculus

(1 credit) This course is a combination of the Trigonometry & Analytical Geometry and the Pre-Calculus classes. This course covers topics from each class and is taught at a much faster pace than the two individual ones. This course is geared towards those students who want to take AP Calculus their senior year.

Prerequisites: Successful completion of Algebra I (Full Course) or Algebra I (First ½) and Algebra I (Second ½), Geometry, and Algebra II.

Probability & Statistics

(1/2 credit) This is a first semester course designed for college bound students. Topics covered in this course include probability, statistics, and an introduction to calculus. Prerequisites: Successful completion of Algebra I (Full Course) or Algebra I (First ½) and Algebra I (Second ½), Geometry and Algebra II.

AP Calculus

(1 credit) This is a yearlong course designed for college bound students. It is especially important for students continuing their education in college in the fields of mathematics, engineering, accounting, and related scientific fields. Topics covered in this course include a detailed exploration of functions, graphs, limits, differentiation, application of derivative, exponential and logarithmic functions, and integration. A student taking this course is encouraged to take the AP Calculus exam at the end of the year and **may**

earn university credit based on his/her score. **Prerequisites:** Successful completion of Algebra I (Full Course) or Algebra I (First ½) and Algebra I (Second ½), Geometry, Algebra II, Pre-Calculus, and Trigonometry & Analytical Geometry or Trigonometry/Pre-Calculus. *Cost: AP Exam approx. \$80*

Applied Mathematics (Transcripted Credit Agreement with Southwest Wisconsin Technical College)

(1 credit) This course is designed for Juniors and Seniors who are interested in going to a technical school. Upon successful completion of the course and meeting the articulated credit agreement requirements, students may obtain articulated credit through Southwest Wisconsin Technical College. In this course students will do computation with rational numbers, make and convert various measurements, use formulas to solve problems, compute dimensions of geometric shapes, use statistical tools to represent and analyze data, analyze various financial situations and use basic right triangle trigonometry to solve problems. This class is open to any student who is a junior or senior.

MUSIC



Concert Band

(1 credit) Concert Band is an instrumental group open to all levels of students studying instruments; however, beginners or those who have not played consistently through middle school will be admitted only upon permission of the director. The concert band begins the year in Marching Band mode and will perform pep bands for home football games, one field show for homecoming, and local parades. At the end of the first quarter, the Concert Band, a Class B to Class A ensemble, will perform for concerts, festivals, and clinics as well as graduation in the spring. The Concert Band rehearses every day and the students are required to attend biweekly lessons throughout the quarter. If a study hall does not work out, this may require students to miss 20 minutes of a different class. Students are also required to attend all scheduled pep bands during the course of the school year unless they are on the team we are playing for that night. The Solo and Ensemble Festival is another opportunity for students to perform in a small group, or as a soloist.

Jazz Band

(Not For Credit) Jazz Band is a group auditioned and/or selected by the instructor. Students selected to participate in this ensemble are required to be in concert band and will usually be the most experienced students at Iowa-Grant High School. This ensemble gives some students the opportunity to play a secondary instrument. This group begins rehearsing during first quarter and will continue throughout the year. The ensemble will perform for all band concerts and possibly Jazz/Swing Festival. This group meets once per week before school. Because of the high musicianship required to perform in this ensemble and lack of rehearsal time, once committed, students missing rehearsals regularly may be asked to leave. This group does not receive credit.

Guitar Exploration I

(1 credit) Guitar Exploration I is a class that explores the world of guitar and guitar performance. Guitar Exploration I will meet every day. Guitar Exploration I is a class for beginning guitar students only. Students will learn the basic concepts and techniques used when playing the guitar and may be asked to perform for various events throughout the school year. This is a yearlong course.

Guitar Exploration II

(1 credit) Guitar Exploration II is a class that explores more advanced concepts and techniques in guitar performance. Guitar Exploration II will meet every day. Guitar Exploration II is a class for students who have completed one semester or more of Guitar Exploration I and/or students who meet instructor approval. Students may be asked to perform for various events throughout the school year. This is a yearlong course.

Concert Choir

(1 credit) Concert Choir is a vocal group open to all students interested in singing a mixture of styles of music. No previous choral experience is required. Students need to be able to perform at 4 concerts each school year, as well as festivals, clinics, and spring graduation ceremony. This group will rehearse every day and learn not only techniques, history and theory behind the music, but will also work to promote a positive team atmosphere. Good work ethic and a willing and positive attitude are requested. Students will be assigned homework or class work as part of their grade. Students may discover other opportunities throughout the school year for performance, including the Solo/Ensemble Festival held each Spring.

PHYSICAL EDUCATION

Physical Education

(1/2 credit) This is required co-educational course includes instruction and participation in general types of team sports (soccer, flag football, volleyball, basketball and softball). Individual and dual sports are archery, badminton, pickle ball, cross country skiing, bowling, golf, tennis, running and wellness, racquetball, and weight lifting. A major emphasis of the course is on participation and instruction to improve the efficiency of cardiovascular system and the wellness and fitness of the young individual. Each fall and spring the classes are tested on a battering of AAHPERD fitness skills that are compared to the national norms.

Strength and Conditioning

(1/2 credit) This course is designed to improve overall body strength and conditioning. This will be done through a process of weight training three days a week, combined with a variety of conditioning activities two days a week. These activities will focus on muscular strength and muscular endurance. Conditioning will also be incorporated with the other principles of physical fitness, students will be able to develop their own personal fitness plan.

SCIENCE



Anatomy & Physiology

(1 credit) This Junior/Senior course is designed to explore the form and function of the human body.

Prerequisites: Biology and Chemistry

AP Biology

(1 credit) This intense class is designed to be the equivalent of an introductory college biology course. AP biology is intended for those college-bound students who may be pursuing a major in a biological field after high school. Students who do well in the course have the option of taking the AP Biology exam in the spring, which provides an opportunity to earn college science credits.

Prerequisites: Junior or Senior status and at least a B average in both Biology & Chemistry (or instructor consent) *Cost: AP Exam approx. \$80*

Physical Science

(1 credit) This course is a study of the properties and interactions of matter and energy. Topics covered include Newton's laws of motion, gravity, work and simple machines, electricity, sound, light, atoms and the periodic table, chemical compounds and chemical reactions.

Biology

(1 credit) This course includes the study of the following: the nature of science, ecology, cells, genetics, evolution, classification, and the human body. Freshman must have Principal, Science Instructor or School Counselor approval to take this course.

This course is a prerequisite for Chemistry, AP Biology, Anatomy & Physiology.

Zoology

(1/2 credit) This course will take a more in depth look at biological concepts in the areas of zoology. Activities include independent research projects and dissections of different animal specimens.

Prerequisites: Biology and Chemistry or Physical Science

Ecology

(1/2 credit) Activities include prairie restoration work, nature journaling, readings from *A Sand County Almanac*, environmental issues debates, and independent research projects.

Prerequisites: Biology and Chemistry or Physical Science

Introduction to Earth Science

(1/2 credit) Fundamental concepts of geology, meteorology, and astronomy. Topics covered will include the solar system, earth structure and composition, plate tectonics, the atmosphere, weather and climate, and Earth's resources. Rocks and minerals and topographic maps will be studied, and there will be a local geologic field trip (Devils Lake).

Prerequisites: Physical Science

Chemistry

(1 credit) This course is a study of the composition of matter and the changes in composition which matter undergoes. Topics covered are matter, solutions, acids, bases, and salts. Also covered is the “Why” of chemical behavior, chemical reactions and organic chemistry. It is a course designed for college-bound students.

Prerequisites: Biology and Geometry or current enrollment.

Chemistry is a prerequisite for AP Biology and Anatomy & Physiology.

Physics

(1 credit) Physics is open to all juniors and seniors, but is intended to challenge college-bound students.

Topics covered are astronomy, measurement, and nature of motion, forces, conversions of energy, properties of matter, work, heat, sound, light, magnetism, and electricity.

Prerequisites: Algebra II or current enrollment.



SOCIAL STUDIES



Economics

(1/2 credit) Economics is a course for the student who wants to learn the basic workings of our economy: Unemployment, the theory of supply and demand, poverty, big business, free enterprise and money are ideas discussed in class. Emphasis is also placed on the importance of human relations in the job market. Recessions and inflation are other topics of current interest. This course is open to juniors and seniors.

US History Survey: Government

(1 credit) This course is required for all juniors and consists of a yearlong study of government in America at all levels with a focus on our Federal Government, U.S. Constitution, and the Supreme Court. Units on Political parties and voting are also included. Current Events are intertwined throughout the year.

Intro to Sociology

(1/2 credit) This elective course will discuss the basic aspects of Sociology and help define what it is. Topics to be covered will include culture, socialization, social status, stereotyping, crime and deviance, and many other related topics. This course is open to juniors and seniors.

US History

(1 credit) This yearlong required class for sophomores is a basic course in United States history from the Civil War to the present time. All eras will be covered from 1877, but emphasis will be primarily on the twentieth century.

World Geography

(1 credit) This course is required for all freshmen is designed to help students understand the characteristics of the earth and the fundamental concepts/themes of geography. This class will study all aspects of geography including physical, place and economic geography as well as briefly exploring the history of different regions of the world. Special emphasis will be given to the following: maps and map skills, geography of population, climate, weather and vegetation patterns, and the industrial and democratic revolutions.

World Civilizations 1

(1/2 credit) A course covering the time period of Ancient history to 1500. This course will cover the Mesopotamian Empires, Egyptian History, Greece, Rome, Medieval Europe, and Comparative Religions. This course is open to juniors and seniors.

World Civilizations 2

(1/2 credit) A course covering the time period of 1500 to Modern Times. This course will cover the Reformation, Age of Revolution (French and Russian), Napoleon & Bismarck, NAZI Germany & the Holocaust, and Comparative Religions. This course is open to juniors and seniors.

Wisconsin

(1/2 credit) Wisconsin is a general survey course concerning the State of Wisconsin. This course is meant to highlight these things that describe what the State of Wisconsin is about both past and present. The student should acquire an understanding of the state they live in. Emphasis is placed on the following areas pertaining to Wisconsin: history, geography, industry, forest resources, population, agriculture, government, recreation, Native Americans, minerals, transportation, weather and climate. Open to juniors and seniors.

AP US History

(1 credit) This course is designed as part of the AP Program and is intended for qualified students who wish to complete studies in secondary school equivalent to college introductory courses in U.S. History. The course is a full-year program that prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. This course will provide students with the analytical skills and factual knowledge necessary to deal critically with the problems and materials in US history. The course will rely heavily upon social studies and writing components. It is designed for very capable students who seek to waive unspecified college history credits by successfully completing the national AP in US History test upon course completion. The course is open to juniors and seniors who have received at least a 'B' in both semesters of U.S. History. *Cost: AP Exam approx. \$80*

Academic Decathlon

(1/2 credit) First semester course, which prepares students for the rigorous Academic Decathlon, a competition held each year in early January. Students will be exposed to a diverse curriculum which includes topics in Mathematics, Economics, Literature, Science, Social Science, Art and Music. Students will also prepare speeches, essays, and practice interview skills for this competition.



TECHNOLOGY EDUCATION



Construction

(1/2 credit) This is a block course that is open to grades 10-12. It is an introduction to current trends in today's energy efficient homes, basic residential construction, and entry-level carpentry skills. It will cover construction terminology, architectural drafting, framing, electrical, roofing, and masonry. These skills will be practiced through hands-on activities throughout the quarter.

Prerequisite: None

Independent Research in Tech Ed

(1/2 credit) This course is open to only seniors. Independent study is a semester course for an individual who wishes to explore areas of interest in the technology education field. The student must have taken and passed the highest level course in that field of technology to be eligible for an independent study. A field that is not covered extensively in the Technology Department can also be taken up with the approval of the instructor. The student will write objectives for his/her area of study as well as homework, projects. Grading will be based on the completion of these objectives and final project.

Prerequisite: Seniors Only!! The student must come and fill out a Tech Ed Independent Research form, before he or she can enroll in the course.

Woodworking I

(1/2 credit) This is a skinny for a semester; course is open to grades 9-12. It is designed for the inexperienced wood worker that would like to investigate the world of woodworking. This course deals with introductory level carpentry and furniture making skills as well as an everyday use of measurement, machine safety and procedures. Students will build a preplanned, red oak footstool and a small end table which will cost the student **\$40.00**.

Prerequisite: None

Woodworking II

(1/2 credit) This is a block course which is open to grades 10-12. It deals with advanced level carpentry and furniture making skills and terminology. This course of study also includes blue print reading, measurement; machine safety procedures, woods throughout the quarter. Students will be building a preplanned, red oak, night stand which will cost the student about **\$55.00**.

Prerequisite: Woodworking I

Multi-Media Photo and Video Editing

(1/2 credit) Students will develop skills related to the production of visual, audio, and electronic media. Students will apply these skills in a variety of projects that enhance the skills developed in the course. Students will become familiar with the basic elements of Photoshop. Students will learn to make and use selections, make color corrections, transfer bits from one image to another, combine several photos seamlessly and repair photos which have been the victims of neglect and indifference over many years. Students will also learn the differences between taking snapshots and making high quality photographs.

Students will learn how, when and why to use the various filters and other plug-ins for Photoshop. Student projects may include the fabrication of an image in the style of a well known painter/photographer, creating an image for a T-shirt design, a bumper sticker, un-visibly, inserting someone into another photo, CD or DVD cover art or restoration of a damaged photo. This course is open to all students.

Web Page Design & Management

(1/2 credit) Web pages will begin with an introduction to the basics of HTML (hypertext markup language) used to “write” web pages. Students will use the latest in web editing software (Dreamweaver/front page) to learn how to create a simple web page with text enhancements, links, anchors, e-mail addresses, and images. Ultimately the course will provide the opportunity to explore advanced table features, using styles, forms and inserting media. Exposure to image editing (Photoshop or Fireworks), and animations (Photoshop & Flash) for web use will also be provided.

Units of Study:

Web Page Planning & HTML code:

Creating and maintaining a personal home page formatting basics and inserting graphics (animated) ordered and unordered lists create and format tables create internal and External links exposure to frames.

Web Page Design (Dreamweaver):

Site design and management enhance web pages with color schemes edit and add images Understand absolute/relative links use html code to problem-solve understand table Features in layout view explore templates and styles insert media into web pages develop forms

Animations (Photoshop and Flash):

Creating an animation working with colors editing images layers

Special Notes/Requirements: Students should possess a strong interest in learning web page Design and image editing.

Pre-Engineering: Project Lead the Way

Intro to Engineering Design (Advanced Standing Credit Agreement with Southwest Wisconsin Technical College)

(1 credit) Want to create your own invention; here is the class for you. This is a semester block course, which is open to students in grades 9-12. This course covers designing, measurement, sketching & drawing, problem solving, solid modeling, and production of designs. Design activities include, creating a puzzle cube design, a chess/checker set, using the laser engraver and designing, 3D computer models, a beverage container, marble maze, and your own invention or design. The majority of this half is project based.

Also, upon completion of this course with an 85% or better, Advanced Standing will be granted through Southwest Tech.

***Prerequisite:** None

****A possible, 3 elective college credits at Milwaukee School of Engineering may be granted for \$50.00; upon completion of this course with an 85% or better and an 70% or better on the college level test.****

Principles of Engineering (Advanced Standing Credit Agreement with Southwest Wisconsin Technical College)

(1 credit) This is a semester block course, which is open to students in grades 9-12. This course covers designing, measurement, sketching & drawing, kitchen shelf, laser engraver designs, As well as exploring practical solutions to simple problems: such as the tower challenge, the boat float, paper chain competition, building a truss, and fluid powered arm, 3-D modeling, woodworking, simple machines, robotics, building a marble sorter or remote controlled vehicle, ping-pong launching devices, career opportunities in engineering. Many of the activities and/or designs will be demonstrated, then built and tested.

Also, upon completion of this course with an 85% or better, Advanced Standing will be granted through Southwest Tech.

***Prerequisite:** None

****A possible, 3 elective college credits at Milwaukee School of Engineering may be granted for \$50.00; upon completion of this course with an 85% or better and an 70% or better on the college level test.****

Engineering Design & Development (PLTW) (Transcripted Credit with Southwest Wisconsin Technical College)

(1 High School Credit & 2 Southwest Technical College Credits) This course is open to SENIORS that have had 2 Project Lead the Way courses (IED & POE). This is a year long course held on the Southwest Wisconsin Technical College campus. It follows the SWTC schedule and meets every Wednesday night at SWTC. You will also be scheduled at Iowa-Grant for a 45 minute class period in Tech Ed as work time for the course material. This course covers designing, sketching & drawing, solid modeling, problem solving and prototyping/production.

Prerequisite: IED & POE and Senior status

****A possible submission of 3 elective college credits at Milwaukee School of Engineering may be granted for \$50.00; upon completion of this course with an 85%****

Tutoring



Elementary and Middle School Tutoring

(1/2 credit) This course is designed to provide high school juniors and seniors with the experience of working in an elementary or middle school. Students (tutors) will be assigned to a Pre-K through 5th grade teacher and assist with many classroom activities. To participate, high school students must be positive role models, have healthy attendance patterns, and be in good academic standing. This is a pass/fail class and students may only participate up to two semesters. The High School Administration reserves the right to deny the participation of any student. There will be a cap of 30 tutors per semester. Sign up will be on a first come first serve basis, with seniors having priority. **Juniors and Seniors only.**

Freshman Seminar



School Connect

This monthly workshop is designed to assist freshmen transition from a middle school setting, prepare for the increased academic rigor of high school, and meet the emotional and social challenges they may encounter over the next four years of high school. Topics will include but are not limited to: Digital Citizenship, Conflict Resolution, Career Planning, Leadership, Safe & Healthy Decisions, Study Skills etc.



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