

Red Rock Central



2016-2017
Registration Guide
and
Course Descriptions

Pre-registration tips and guidelines

- Use the Graduation Requirements to check off which courses you have already completed. This will show you what you still need to take in order to graduate!
- Use the 4-year Planner to map out which courses you would like to take the following year(s). You may not be able to fit in everything that you want this year, so see where it will fit in the following year(s).
- Read through the course descriptions of classes you are considering. Some require a certain GPA, instructor permission or are only available to certain grade levels.
- Certain classes are required each year. These are already listed on your pre-registration sheet. These **MUST** be passed in order to graduate. If you have not passed a required class this year, you **MUST** re-take it.
- You are responsible to fill in what other classes (electives) that you want to take. Pay attention to whether the class is a semester long class, or a year-long class.
- Consider if you need a study hall, or if you can make better use of your time by taking a class. Study hall can be beneficial for some students. However, colleges would rather see a full class schedule where you take every opportunity available to you.
- You will also need to list 2 “alternate” class choices for each semester. These would be your next choice if your first choice is not available or does not fit in your schedule.
- Once you choose your classes, and the schedule has been built, it can be difficult to change your schedule. Let me repeat that – once you choose your classes, it can be difficult to change them. Do some thinking and planning ahead now to avoid this problem later.
- Involve your parents in these decisions. They may have some experience and/or suggestions for you. At the very minimum, they must sign your pre-registration sheet.
- If you have questions or need help with your registration, please ask Mr. G or Ms. Karnitz. We are happy to help and will try to answer any questions that you may have.

4-year Planner

<u>9th grade</u>	<u>10th grade</u>	<u>11th grade</u>	<u>12th grade</u>
English 9	English 10	English 11	/
Civics	American History	Geography or World History	Geography or World History
Physical Science	Biology	Chemistry or Chemistry Foundations	/
Algebra or Algebra Concepts	Geometry or Geometry Concepts	Advanced Algebra or Statistics/Probability	/
PE 9/Computer	Health 10	LifeSmarts	/
/	/	/	/
/	/	/	/
Choir or 4A Study Hall	Choir or 4A Study Hall	Choir or 4A Study Hall	Choir or 4A Study Hall

**Red Rock Central Graduation Requirements
Class of 2017 and beyond**

4 credits English

English 9 _____

English 10 _____

English 11 _____

Pick 2: British Literature
 College Literature

 Theatre Basics
 College Writing

 Film Studies
 College Speech

4 credits Social

Civics _____

American History _____

Geography/AP Geography _____

World History _____

3 credits Math

Algebra _____ OR Algebra Concepts _____

Geometry _____ OR Geometry Concepts _____

Advanced Algebra _____ OR Statistics/Probability _____

3 credits Science

Environmental Science _____

Biology _____

Chemistry OR Chemistry Foundations _____

2 credits Phy Ed/Health/Computer

Grade 9 PE/Computer _____

Grade 10 Wellness _____

1 credit Arts

Band _____

Choir _____

Art _____

½ credit LifeSmarts _____

6 ½ credits Electives

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Total Credits: 24

Course Name/Number Quick Reference List

Course #	Course Name	Grade Level
1	Study Hall	9-12
25	Film Studies	11-12
6	British Literature	11-12
5	Theatre Basics	11-12
26	College Literature	11-12
32	College Writing	11-12
33	College Speech	11-12
41	AP Statistics	11-12
45	College Algebra	12
49	Senior Math	12
53	Physics	12
54	Human Biology	9-12
81	Ecology	9-12
82	Horticulture	9-12
128	Advanced Phy Ed	11-12
92	Psychology	10-12
110	Art I	9-12
111	Art II	9-12
112	Art III	9-12
113	Advanced Art	9-12
131	Graphic Arts	11-12
114	Independent Art	11-12
123	Art Research	11-12
ITV	Spanish I	9-12
116	Choir	9-12
118	Band	9-12

Course#	Course Name	Grade Level
39	Intro to Agriculture	9-12
86	Sm. Animal/Vet Science	9-12
87	Lg. Animal Science I	9-12
85	Lg. Animal Science II	9-12
88	Ag Business	9-12
89	Accounting for Business and Ag	9-12
74	Law for Business and Ag	10-12
83	Crops and Soils	9-12
100	Tech Ed	9-12
98	CISCO	9-12
106	CAD	9-12
95	Digital Fabrication	9-12
101	Woodworking	9-12
102	Furniture	9-12
115	Independent Tech Ed	12
84	Welding/Electricity	11-12
96	Cars 101	9-12
105	Auto I	10-12
103	Auto II	12
250	School to Work RRCNet	11-12
TA	Teacher Intern/Assistant	11-12
69	Occupational Experience	11-12

9th grade Required Courses

These courses must be taken by all 9th graders. These are required for graduation, and students will need to receive a passing grade in order to move on to the next course in 10th grade. In addition to these, students can select elective courses from the elective course list.

Civics

This course will explore the people, documents, and events that led to the creation of the United States Government. This course also includes career exploration which allows students to investigate their interests through the Minnesota Career Information System.

English 9

This course will have a strong focus on writing and analyzing literature. Students will write every day. The course will cover short essays, speeches, informal writing, narrative and persuasive essays and a major research project and paper. In addition, students will read and analyze short stories as well as a novel.

Environmental/ Physical Science

This course introduces physical science, with the main emphasis on chemistry and physics, and also includes a unit on earth and space science. Some topics covered include structure and change in matter, motion, energy, force, electricity, magnetism, and technology. Lab activities are included.

9th grade Physical Education

An emphasis is placed on life-long activities that may be used as students become adults. Emphasis is placed on fundamental skills and safety, as well as attitude, and participation. Students are expected to be competent in the skills, rules, etiquette, and sportsmanship of all of the activities covered in the curriculum. Students will also understand the importance of fitness and healthy lifestyles.

Comments: Every other day rotation with Computer Tech

Computer Tech

This course is a hands-on, basic competency course intended to provide all students with the skills and knowledge necessary to use computers both in high school and beyond. The course includes hands-on experience with the building network, WindowsXP, Microsoft Word, Microsoft Excel spreadsheet fundamentals and graphing, web page construction, PowerPoint, internet, e-mail, and acceptable use policies.

Comments: Every other day rotation with Physical Education

One of the following math courses

The current 8th grade math teacher will recommend which course you should take.

Algebra

Beginning of the college prep math sequence. Formulas, equations and inequalities, functions, quadratics and polynomials, coordinate geometry, probability and statistics.

Comments: Must earn an A or B in Math 8 in order to take Algebra

Algebra Concepts

This course is occupationally related and is designed for students who learn mathematics best in an applied setting and who plan on vocational-technical careers. Focuses on using all real numbers (including percents applications), elementary equations and formulas, exponents and scientific notation, linear equations and co-ordinate geometry.

10th grade Required Courses

These courses must be taken by all 10th graders. These are required for graduation, and students will need to receive a passing grade in order to move on to the next course in 11th grade. In addition to these, students can select elective courses from the elective course list.

American History

This course will focus on the events and changes affecting the United States and its citizens from 1880-2007. The main topics to be covered are Reconstruction, U.S. Expansion at the turn of the century, the Progressive Era, World War I, the Roaring Twenties, the Great Depression, World War II, The Cold War Era, the Civil Rights Movement, Vietnam, Watergate, the 80's, and recent political, social, and economic history including Sept. 11th, and the Iraqi and Afghanistan Wars.

English 10

This course focuses on the development of communication and reading skills via the study of grammar, literature, composition, and vocabulary. Students will participate in both individual and group activities as a means of strengthening reading skills to benefit them across the curriculum. Additionally, students will review the research process by completing a mini-research paper.

Biology

An in-depth study of the nature of life, genetics, microbiology, multicellular plants, biology of invertebrates and vertebrates.

10th grade Wellness

This course is a hybrid class that matches physical education curriculum along with individual and community health. This course will change over between the Physical Education curriculum and the Individual/Community Health curriculum on a four week PE, two week Health rotation. The course will include a full curriculum of Physical Education. Along with this, the course will include various health aspects such as: First Aid and Safety, AED training, Alcohol, Drugs, and tobacco prevention, decision-making, goal setting strategies, Human sexuality, responsible relationships, nutrition, and healthy lifestyles.

One of the following math courses

Geometry

College prep theoretical math course. Polygons, circles, and solids, areas, volumes, constructions, proofs, coordinate geometry, and introduction to triangle trigonometry.

Comments: Must earn an A or B in Algebra I to enroll in this course.

Geometry Concepts

This course focuses on applied geometry in 2 and 3 dimensions. Polygons, circles, and solids, areas, volumes, constructions, proofs, coordinate geometry, and introductions to triangle trigonometry. Real life applications of all topics.

11th grade Required Courses

These courses must be taken by all 11th graders. These are required for graduation, and students will need to receive a passing grade in order to move on to the next course in 12th grade. In addition to these, students can select elective courses from the elective course list.

One of the following social courses

World Geography

This course will allow students to develop a working knowledge of basic geographic concepts and skills so that they are able to demonstrate a basic knowledge of locations of places in the world as well as analyzing and evaluating the countries and civilizations of the world. Current world events are included in discussions in relationship to their geographical implications.

AP Human Geography

This course will allow students to develop an extensive knowledge of geographical concepts relating to human cultural perspectives throughout all global regions. Current events will also be included. College credits can be earned with a year-end AP test.

One of the following science courses

Chemistry

An experimental science that studies the nature of matter including its forms, properties, and interactions. The nomenclature, structure, composition and reactions of chemical compounds are studied. Factors that affect reactions, acids and bases, the states of matter, and solutions are also studied. Lab time is included. This course is recommended for students planning to attend a four-year college. Either General Chemistry or Foundations Chemistry is required for graduation.

Comments: *Must earn an A or B in Algebra I to enroll in this course. Must also take Advanced Algebra at the same time as Chemistry.*

Chemistry Foundations

Similar to General Chemistry, but with more of an emphasis on concepts. You will study the nature of matter including its forms, properties, and interactions. The nomenclature, structure, composition and reactions of chemical compounds are studied. Factors that affect reactions, acids and bases, the states of matter, and solutions are also studied. Lab time is included.

LifeSmarts (One semester only)

This is a course to prepare students for the “real world”. Students will be considering career and college options, determining paycheck deductions and making personal finance decisions such as saving, investing, budgeting, the use of credit, and insurance options. Students will also create an effective resume and cover letter which will be put to use in a mock interview with members of the business community. Students will also complete a series of online modules thereby earning Financial Literacy Certification through Everfi Financial. This class will provide students with the tools for a successful financial future.

English 11

This course will focus on American literature as well as a selected amount of writing to complement the readings in class. Students will analyze the literature through discussion, composition, and formal evaluations. will also include a brief review of grammar and usage as well as a continual spelling/vocabulary study.

One of the following math courses

Advanced Algebra

Linear, quadratic, logarithmic and exponential equations, functions and inequalities, radicals, algebra fractions, complex numbers, matrices and systems of equations, and more triangle trigonometry. Real life applications of all topics wherever appropriate.

Comments: *Must earn an A or B in Geometry in order to enroll in this course.*

Probability and Statistics

Statistics will be data analysis including making charts and graphs and basic probability will cover applications including simulations, odds, and expected values. We also will cover binomial and normal distributions and voting methods. Second semester will cover a wide variety of applications of high school mathematics and any state math standards not previously covered in the Tech Prep Math sequence.

12th grade Required Classes

These courses must be taken by all 12th graders. These are required for graduation, and students will need to receive a passing grade. In addition to these, students can select elective courses from the elective course list.

One of the following social courses

World Geography

This course will allow students to develop a working knowledge of basic geographic concepts and skills so that they are able to demonstrate a basic knowledge of locations of places in the world as well as analyzing and evaluating the countries and civilizations of the world. Current world events are included in discussions in relationship to their geographical implications.

AP Human Geography

This course will allow students to develop an extensive knowledge of geographical concepts relating to human cultural perspectives throughout all global regions. Current events will also be included. College credits can be earned with a year-end AP test.

Two of the following english courses

Descriptions are found on page 10

- **Film Studies**
- **British Literature**
- **Theatre Basics**
- **College Literature**
- **College Writing**
- **College Speech**

English Electives

Film Studies

Course Number: 25 **Course Length:** Semester **Grade Levels:** 11, 12

This class begins with a study of the history of film making and examination of the criteria applied to movies listed in the National Film Registry. Students will examine the 6 genres of American movies including the western, film noir, science fiction, the musical, horror, and the gangster movie. Additionally, students will examine film as narrator, biographer, and documentarian.

British Literature

Course Number: 6 **Course Length:** Semester **Grade Levels:** 11, 12

This literature class will focus on four periods of British literature: Anglo-Saxon literature and *Beowulf*, medieval literature and the legends of King Arthur, the Jacobean Era and *Macbeth*, and the modern era and Sir Arthur Conan Doyle. Additionally, students will complete a literary research paper and subsequent presentation on their chosen topics.

Theatre Basics

Course Number: 5 **Course Length:** Semester **Grade Levels:** 11, 12

Students will participate in this hands-on course through the practice of relaxation techniques, participation in theatre games, and performance. Students will begin with a study of the history of theatre and radio. They will then move on to projects which will include writing and performing group pantomimes, producing a radio broadcast, and acting in short partner plays. Students will also participate in a set construction practicum by helping build sets for the fall musical.

College Literature

College Credit Available

Course Number: 26 **Course Length:** Semester **Grade Levels:** 11, 12

This is a College Now class offered through SMSU (Literature 120) with a possibility to earn 3 college credits. This college-level class functions as an introduction to literature in four genres: short story, poetry, drama, and the novel. Students will critically read and respond to literature through class discussion, quizzes, weekly short essays, explications, critical analyses, and other written responses.

Comments: Must have a 3.0 GPA or higher and be in the top 1/3 of the class as a junior or top 1/2 of the class as a senior.

College Writing

College Credit Available

Course Number: 32 **Course Length:** Semester **Grade Level:** 12

This is a College Now class offered through SMSU (English 151) with a possibility to earn 4 college credits. This course will prepare students for college writing at all levels of the college experience by developing students' ability to reason, to read and to write critically. Students will complete a series of three research papers, each with increasing length and complexity. Additionally, students will write four narrative reflective essays and a journal review.

Comments: Must have at least a 3.0 GPA and be in the top 1/2 of the class as a senior.

College Speech

College Credit Available

Course Number: 33 **Course Length:** Semester **Grade Level:** 12

This is a College Now class offered through SMSU (Speech 110) with a possibility of earning 3 college credits. This course is designed to improve speech communication and interpretation skills through the preparation and presentation of a series of formal speeches and a group presentation. Students will be assessed on preparation, performance, peer evaluations, and quizzes.

Comments: Must have at least a 3.0 GPA and be in the top 1/2 of the class as senior.

Mathematics Electives

AP Statistics

College Credit Available

Course Number: 41

Course Length: Full Year

Grade Levels: 11, 12

This is a college-level introductory statistics course typically required for many majors including business, all sciences (including social and health), engineering, education, and mathematics. This class will explore data patterns, plan and conduct a study, explore random phenomena using probability and simulation, and estimate population parameters and test hypotheses. Inferential statistics, the standard normal curve, and confidence intervals will be covered. The class will prepare students to take the AP Statistics Exam given each spring.

Comments: *Must have a 3.0 or higher GPA and be in the top 1/3 of the class as a junior or the top 1/2 of the class as a senior.*

College Algebra

College Credit Available

Course Number: 45

Course Length: Full Year

Grade Level: 12

A study of the fundamental concepts of algebra. Topics include: complex numbers and the Fundamental Theorem of Algebra; polynomial, rational, exponential and logarithmic functions and their graphs and limits; and systems of equations with matrix applications.

Comments: *Must have a 3.0 or higher GPA and be in the top 1/2 of the class as a senior.*

Senior Math: Personal & Business Finance

Course Number: 49

Course Length: Full Year

Grade Level: 12

This course is intended for students going directly into the job market, going into a non-technical field at a technical college, or needs another math course to fulfill graduation requirements. This course will focus on skills necessary to be successful in everyday life and the world of work. It will also reinforce standardized test taking skills. Passing this course will also fulfill the requirements for remediation of the MCA math test.

Science Electives

Physics

Course Number: 53

Course Length: Full Year

Grade Level: 12

Physics is concerned with the basic principles that govern the behavior of matter and energy. The nature of force and motion and their applications, gravitation, momentum, energy, work, waves, sound, light, magnetism, and electricity are the main topics studied. Quantum theory and nuclear physics are introduced. Labs are included. This course is recommended for students planning to attend a four-year college.

Comments: *Must successfully complete Advanced Algebra before enrolling.*

Human Biology

Course Number: 54

Course Length: Semester

Grade Levels: 9, 10, 11, 12

The objectives of Human Biology are to acquaint the students with the organs and systems of the human body and how they interact, to create an understanding of how all body systems function together. Emphasis on the anatomy, physiology and diseases of the body.

Ecology

Course Number: 81

Course Length: Semester

Grade Levels: 9, 10, 11, 12

Ecology is a study of the interactions of all living things and the environment in which they live. Topics include: nutrient cycles, biomes, populations, water systems and pollution. Specific attention is given to Minnesota's wild plants, animals and their habitats as well as the local watershed. The textbook that is used focuses primarily on fish and wildlife.

Comments: *This class will qualify a student for FFA membership.*

Horticulture

Course Number: 82

Course Length: Semester

Grade Levels: 9, 10, 11, 12

Horticulture is the study of plants and plant management. Topics include: plant anatomy and development, growing conditions, plant requirements, landscape design, and plant identification. Students will practice growing, pruning, and grafting trees to plants.

Comments: *This class will qualify a student for FFA membership.*

Wellness Elective

Advanced Physical Education

Course Number: 128

Course Length: Semester

Grade Levels: 11, 12

Students in this class will be joining the regular 9th or 10th grade PE class and will act as leaders in the activities for the day. These students may also take part in some weight training activities as prescribed by the instructor. The number of students will be limited and will be screened for admittance. Successful acceptance to the class will be based upon previous PE grades and attitude. Leadership qualities will also be a part of the selection process.

Comments: *Must have permission of the instructor prior to enrolling in this course.*

Social Studies Elective

Intro to Psychology

Course Number: 92

Course Length: Semester

Grade Levels: 10*, 11, 12

This course introduces students to the scientific study of behavior and mental processes of humans and other animals. Topics that may be explored include research methods, biological basis of behavior, psychological disorders and their treatment, sensation and perception, states of consciousness, memory, thinking, language, learning, intelligence, motivation, emotion, personality, human development and social psychology.

Students will gain an understanding of individual development as it pertains to mental processes and behavior. Students will continue to develop their critical thinking skills and communications skills through the research of relevant topics in psychology. Building such skills will provide value in other academic disciplines and provide enduring skills for life beyond high school.

Comments: *10th grade students must have permission of the instructor prior to enrolling.*

Fine Arts Electives

Art I - Drawing and Painting

Course Number: 110

Course Length: Semester

Grade Levels: 9, 10, 11, 12

This class concentrates on two-dimensional art through different types of drawing (realistic, cartoon, architectural, figure, etc.) with a variety of media: pencil, colored pencil, pen & ink, charcoal, etc. Paintings with tempera, watercolor and acrylic paints will be done. Other two-dimensional areas will be printmaking, advertising art, and calligraphy.

Art II - Crafts

Course Number: 111

Course Length: Semester

Grade Levels: 9, 10, 11, 12

Students will work in a variety of areas: Indian beading, mask making, pottery, paper making, linoleum block print making, cut paper folk art, glass etching, basket making, stenciling, and woodburning.

Art III – Sculpture and Ceramics

Course Number: 112

Course Length: Semester

Grade Levels: 9, 10, 11, 12

Pottery will concentrate on hand-built construction using pinch, slab, coil and drape techniques. There will be time to experiment on the potter's wheel. Sculpture projects will be architectural model making and designing in plaster, wood, wire, paper maché, and foam carving.

Advanced Art

Course Number: 113

Course Length: Semester

Grade Levels: 9, 10, 11, 12

Further experiments in drawing and painting, concentrating on two-dimensional art at a more advanced level. Explore favorite media in depth as the course is geared towards students' individual interests.

Comments: *Must successfully complete Art I before enrolling in Advanced Art.*

Graphic Arts

Course Number: 131

Course Length: Semester

Grade Levels: 11, 12

This course is offered for students who are enthusiastic about the study of design techniques. The class will encompass a range of technology and design issues as well as a variety of materials. It is designed for students to investigate the many aspects of computer art and work with a wide range of media.

Comments: *Must successfully complete at least 1 semester of Art I, Art II, or Art III before enrolling.*

Independent Art

Course Number: 114

Course Length: Semester

Grade Levels: 11, 12

For the student who is interested in total visual arts immersion. Geared towards the student's individual interests.

Comments: *Must successfully complete 3 or more semesters of studio art classes with strong grades, and a demonstration that you can work independently. Must also have permission of the instructor before enrolling.*

Art Research

Course Number: 123

Course Length: Semester

Grade Levels: 11, 12

A second level of Independent Art for the student who is looking at an art career, or desires to experience one or two types of media at a professional level.

Comments: *Must successfully complete Independent Art and have permission of the instructor before enrolling.*

Spanish I

Course Number: ITV

Course Length: Full Year

Grade Levels: 9,10,11,12

This course will be offered through an ITV partnership with Springfield High School. Students will be in a traditional classroom setting, but will interact with the teacher and other class members through the miracle of technology.

Choir

Course Number: 116

Course Length: Full Year

Grade Levels: 9, 10, 11, 12

Preparation and performance of choral literature is the main focus of Concert Choir. Music study covers information for gaining basic knowledge of music history, theory, form, texture, styles and music of other cultures. Rehearsal techniques strive to develop fundamental tone production and good vocal health.

Comments: *Meets 25 minutes every day, during an established home room "4A" period.*

Band

Course Number: 118

Course Length: Full Year

Grade Levels: 9, 10, 11, 12

Band offers the students the opportunity to expand their musical background through performance. Literature studied during rehearsal covers a wide variety of styles from classical transcriptions to jazz and popular music. Students will expand their skills of tone production, sight-reading, use and understanding of musical terms, and technical skills on their instrument. Composers and background information on music is also covered during rehearsals. All students who are in band will participate in all public performances for concert band, pep band and special events. Band students will also have the opportunity to increase their skills by participating in honor bands, small ensembles, All-State Band auditions and preparing solos for contest.

Agriculture Electives

Intro to Agriculture

Course Number: 39

Course Length: Semester

Grade Levels: 9, 10, 11, 12

In this course, students will explore the agriculture, food, and natural resources industries and how they affect our daily lives as consumers. Students will be introduced to a wide variety of topics, including wildlife, horticulture, food science, soils, animal science, welding, and leadership. Students will participate in a variety of hands-on activities throughout the course. In addition, students will be introduced to the history of the FFA organization, FFA membership requirements, and the wide variety of opportunities FFA has to offer. Students will also have the opportunity to become members of FFA.

Small Animal Care and Vet Science

Course Number: 86

Course Length: Semester

Grade Levels: 9, 10, 11, 12

This course is aimed at students with an interest in small animal care and introduction level vet science. The course will include but is not limited to the following areas of study: careers with small animals, animal rights and welfare, nutrition, dogs, cats, rabbits, birds, and fish, along with other small pets such as guinea pigs, hamsters, and amphibians. Students can maintain their FFA membership with this class and do possible work towards a career in veterinary technology and small animal care or sales.

Large Animal Science I

Course Number: 87

Course Length: Semester

Grade Levels: 9, 10, 11, 12

Topics to be covered will include animal breeding, genetics, animal nutrition, and domestication of animals, feeding and production management of the following species: **beef cattle, dairy cattle and sheep.**

Large Animal Science II

Course Number: 85

Course Length: Semester

Grade Levels: 9, 10, 11, 12

Topics to be covered in this class will include the species of **swine, poultry, horses and goats.** Feeding, production management and marketing of all species will be covered. Marketing will be expanded in this course to expose the student to the Chicago Mercantile Exchange and the use of the futures markets to cover and protect the investments related to the production of market animals.

Ag Business

Course Number: 88

Course Length: Semester

Grade Levels: 9, 10, 11, 12

This course will cover in-depth study in agriculture real estate, agriculture law, insurance and basic principles of agriculture loans and finance. We will also discuss taxes, commodities, and marketing found in the world of agriculture.

Accounting for Business and Agriculture (Formerly known as Ag Business II)

Course Number: 89 **Course Length:** Semester **Grade Levels:** 9,10,11,12

This course will cover business and ag accounting, with an emphasis on bookkeeping, banking and credit. Students will learn how to prepare a financial statement, a profit-loss statement, and a net worth statement. Topics also to be covered will be Chicago Mercantile Futures and options.

Law for Business and Agriculture

Course Number: 74 **Course Length:** Semester **Grade Levels:** 10, 11, 12

In this course, you will gain a basic understanding of your legal rights and responsibilities, and how it affects you as a citizen, consumer, and employee. We will start out by talking about different types of laws and the foundation of the United States' court system. You will then be introduced to contracts, insurance, property, and employment law. We will also cover basic personal finance laws and regulations. In addition, we will study different policies related to agriculture, food, and natural resources. This course will include some projects and activities that will allow you to apply the content.

Crops and Soils

Course Number: 83 **Course Length:** Semester **Grade Levels:** 9, 10, 11, 12

This course will cover all topics that pertain to agricultural crop production. We will discuss tillage practices, seed populations, GMO's, yield/profitability, crop rotation, integrated pest management, plant physiology, harvesting, herbicide usage, and fertilizer needs. Students will be able to identify and explain modern cropping practices and why they are effective, as well as discuss possible alternative methods.

Computer and Industrial Technology Electives

Tech Ed

Course Number: 100

Course Length: Semester

Grade Levels: 9, 10, 11, 12

This course will introduce students to a variety of hands-on skills. We will cover basic woodworking, minor construction, house plans, and shop safety. A majority of time will be spent doing hands-on projects around the school building and in the shop. Class numbers will be limited.

CISCO and Information Technology Essentials

Course Number: 98

Course Length: Semester

Grade Levels: 9, 10, 11, 12

This course will introduce students to information technology and data communications. Students will develop the necessary skills to enter this field by building a computer, installing the operating system, adding peripherals, connecting the computer to a local area network and to the internet. This is a hands-on, lab-oriented course that stresses laboratory safety and working effectively in a group environment. This course will help prepare students for A+ certification. Classroom work will be instructor facilitated online multimedia material. This will take about ½ of the class time. The other half of the time will be spent on lab activities.

Comments: *Certifications Available: Comp TIA/s A+ Certification*

CAD: Computer Assisted Drafting/Design

Course Number: 106

Course Length: Semester

Grade Levels: 9, 10, 11, 12

This is a course developed around Solid Works 3-D drafting software. This will be a pre-requisite for the Digital Fabrication starting in fall of 2015. We will also cover other types of graphics software such as HGTV home design software and Corel Draw. Students will learn the commands and the capabilities of the software that we use in the Digital Fabrication course.

Comments: *This course is for anyone that has any desire to enter the engineering or graphics professions. Also this course will be a pre-requisite for our classes in Digital Fabrication. You will learn how to use the software that will help you design your project so that you can concentrate on the design process.*

Digital Fabrication (Fab Lab)

Course Number: 95

Course Length: Semester (2 semester limit)

Grade Levels: 9, 10, 11, 12

This is a class where the student will be able to design and build almost anything using digital engineering and manufacturing processes. The first semester you are enrolled you will learn about designing objects in using Solid Works, Corel Draw and other design software. You will learn some basic engineering processes and reverse engineering processes. You will learn how to scan an object in 3-D (such as your head). You will produce objects using the Laser Cutter/Engraver, 3-D Printers and Modella Model/Sign maker. You will also learn the basics of CNC machining and how to turn a 3-D drawing into a machined 3-D product using the CNC Milling machine, the CNC Plasma Cutter, and the CNC Router.

If you choose to enroll for a second semester, you will produce projects using the CNC equipment and then will produce a final project of your own choosing and design. You will be able to use any of the equipment and design processes needed to complete your project. Students will be required to pay a fee at the beginning of the semester to cover the costs of the materials. All students will pay the same fee for the class and will be set by the teacher and administration prior to the class starting.

This course will follow the curriculum set forth by M.I.T. (Massachusetts Institute of Technology) and will use materials and processes suggested by the writers of the curriculum. Students will be required to create some smaller projects as well as their Major project and will be graded on their work in the LAB.

Comments: *Must successfully complete CAD before enrolling in Fab Lab.*

Woodworking

Course Number: 101

Course Length: Semester

Grade Levels: 9, 10, 11, 12

This is a class provides the fundamentals of woodworking. We will cover how to use all machines and project construction. A major project is required. Class size will be limited – priority given to 11th and 12th grade.

Furniture

Course Number: 102

Course Length: Semester (2 semester limit)

Grade Levels: 9, 10, 11, 12

This class covers advanced woodworking techniques, cabinet and furniture construction. All students will be required to build a major project using these techniques. Class size will be limited – priority given to 11th and 12th grade students.

Independent Tech Ed

Course Number: 115

Course Length: Semester

Grade Level: 12

This course is only for students who have demonstrated in previous Technology Education courses, that they are capable of working on their own, and producing quality work. The student will be able to choose from any area of study currently available in our Technology Education courses. The student will do a major project, write instructions on how to construct the project, and build a tool or fixture for the school in that area.

Comments: *Must have instructor permission before enrolling.*

Welding and Electricity

Course Number: 84

Course Length: Semester

Grade Levels: 11, 12

Students will have a hands-on experience in the areas of welding, oxy-acetylene, cutting, and wire welding. They will also wire different problems on a demo board using switches and schematics. Safety measures in both areas will be covered extensively. Class numbers will be limited.

Automotive Technology Electives

Cars 101 (Basic Auto Repair)

Course Number: 96

Course Length: Semester

Grade Levels: 9, 10, 11, 12

Start your engines.....this class is for anyone and everyone who wants to learn how to get under the hood and perform routine maintenance on their vehicle. We will cover checking and filling fluids, changing windshield wipers, checking and maintaining tire pressure, and replacing fuses. We will also learn how to replace headlights, inspect belts, use a car jack, change the oil, change a tire, repair a flat tire, replace the battery, and change filters. Students will learn how to keep a maintenance log and schedule, and also learn what to include in an emergency car kit.

Comments: This is not meant for students who will take Automotive Technology I/II.

Automotive Technology I

Course Number: 105

Course Length: Full Year

Grade Levels: 10, 11, 12

This class covers operating principles of 2 and 4 cycle engines, and other types of engines. We will also cover how to maintain and repair suspension, drive, steering, and other important systems on recreational vehicles. Some of these are motorcycles, 4-wheelers, snowmobiles, lawn mowers, etc. We will cover simple do it yourself repairs such as changing fuses, tires, bulbs, checking the oil and other fluids, care of finish, etc. We will also cover shopping for automobiles. This will include what to look for, financing, leasing, new vs. used, and other topics that are related. Class size will be limited.

Automotive Technology II

College Credit Available

Course Number: 103

Course Length: Full Year (2 periods a day)

Grade Level: 12

The objective of this program is to enable the student to perform certain basic skills, develop attitudes and competencies that will be beneficial at the entry level in the general automotive fields. This course will provide students with an opportunity, prior to graduation and entering the world of work or post-high school education, to explore the repair of engines, electrical, fuel, emission control and other various systems used on automobiles of today. The course content is so arranged that students will have an opportunity sometime during the program to work on automobiles owned by himself or herself or a member of the family. Owning or having access to an automobile is not a prerequisite of this course. Lecture, demonstration in the classroom and shop, classroom discussion, films and slides discuss some of the employment possibilities such as Auto Mechanics - general, service station attendant, parts person, agricultural engine mechanic and small engine repair. Areas covered in class are auto shop safety and tools, engines and engine systems, electrical and electronic equipment, emission controls, trouble diagnosis and tune-up, engine service and auto chassis.

Comments: *College credit is earned if required competencies are met and a "B" average is maintained. Credit is offered through Minnesota West, South Central Technical College, Dakota County Technical College, and Ridgewater.*

Courses Available by Permission Only

If you are interested in these courses, you must get permission from Mr. G before registering

School to Work : RRC Net

Course Number: 250

Course Length: Semester

Grade Levels: 11, 12

The purpose of this course is to give students experience in the operation of an Internet Provider Business. The two facets of experience are: 1. Computer Network Operations Support 2. Business Accounting Practices using "Quick Books." A log of daily activities is kept.

Comments: *Must successfully complete CISCO before enrolling. Juniors must have completed 13 credits by the beginning of the year, and Seniors must have completed 20 credits by the beginning of the year in order to enroll. Students can take this course for a maximum of 2 semesters.*

Teacher Intern/Assistant

Course Number: TA

Course Length: Semester (2 semester limit)

Grade Levels: 11, 12

The purpose of this class is to give students an opportunity to work with a teacher for one hour/day. Typically these teachers have activities outside the regular classroom duties. The purpose of a teacher intern is to provide assistance to the teacher, develop desirable work habits and nurture a sense of responsibility in the students. Typical duties would be public relations for program events, organizing files and data within a department, written and verbal correspondence, web page design and upkeep, or any other duties deemed necessary by the supervising teacher. Data privacy will be followed. Students will develop a portfolio, which will include a daily log of activities, work samples, and intern application documents. Upon exit from this class, students will do an exit interview with our high school principal, which will include a portfolio review and questions about their teach intern experience.

Comments: *Graded as a Pass/Fail course. Juniors must have completed at least 13 credits by the beginning of the year. Seniors must have completed at least 20 credits by the beginning of the year to enroll.*

Occupational Experience

Course Number: 69

Course Length: Semester

Grade Levels: 11, 12

Earn high school credit while you work! This work-based learning program provides you with an opportunity to learn about working and what employers really expect of their employees. This course may be taken during the school day. If the class is taken before 6th hour, the student must return to school for the remainder of the school day. All work environments must be legitimate educational experiences. Mr. Runck supervises these experiences and will make site visits to your work location to check on your progress.