

ROCK COUNTY HIGH SCHOOL
COURSE DESCRIPTION BOOK
2020-2021

GRADUATION REQUIREMENTS

To be eligible for graduation from Rock County High School, a student must have:

Eight semester attendance

A total accumulation of 270 academic credits

English & Communications

45 Total Credits

- English 1 10 credits
- English 2 10 credits
- English 3 10 credits
- English 4 or 10 credits
- College Credit English 10 credits
 - Dual Credit (high school & college)
- Speech (required) 5 credits

Social Sciences

30 Total Credits

- Social Science (required) 10 credits
- American History (required) 10 credits
- American Government (required) 10 credits

Mathematics

30 Total Credits

- Algebra 1 10 credits
- Algebra 2 10 credits
- Geometry 10 credits
- Applied Math 10 credits
- Pre-Calculus 10 credits
- Calculus 10 credits
- College Credit Algebra 10 credits
 - Dual Credit (high school & college)

Science

30 Total Credits

- Physical Science 10 credits
- General Science 10 credits
- Chemistry 10 credits
- Biology (required) 10 credits
- Anatomy & Physiology 10 credits
- Physics (Distance Learning) 10 credits
- Animal A & P (Ag) 10 credits

Physical Education

20 Total Credits

- PE 1 and Health 10 credits
- PE 2 and Health 10 credits
- Weight Lifting 10 credits

Business

15 Total Credits

- Careers 5 credits
- Personal Finance 10 credits (starting the 2022-2023 school year-senior class)

Electives

100 Total Credits

- Please see the following pages for a list of all required and elective courses along with their descriptions.

Seniors failing to meet these requirements will not be allowed to participate in the graduation ceremony.

Graduation requirements include payment of all fees and fines accumulated during attendance at RCCHS.

Students with less than 65 hours will be classified as Freshmen.

Students with less than 135 hours but more than 65 hours will be Sophomores.

Students with less than 190 hours but more than 135 hours will be Juniors.

Students must have a minimum of 190 hours to be classified as Seniors.

ROCK COUNTY HIGH SCHOOL

SUGGESTED CLASS SCHEDULE

7TH GR. REQUIRED

English 7
Social Studies
Math 7
Science
PE
Ag
4 Class Rotation:
Choir
Spanish
Art
Computers

7th GR. ELECTIVES

Band
Study Hall

FRESHMAN REQUIRED

Math (Algebra 1, Algebra 2
Geometry)
English 1
Social Science
Physical Science
PE & Health 1

FRESHMEN ELECTIVES

Band
Choir
Art
Spanish
Intro to Agriculture, Food & Natural Resources
Digital Media
Information Technology
Intro to Business
Study Hall
Accounting 1

8TH GR. REQUIRED

English 8
Social Studies
Math 8 or Algebra 1
Science
PE
Ag
4 Class Rotation:
Choir
Spanish
Art
Computers

8th GR. ELECTIVES

Band
Study Hall
Algebra 1

SOPHOMORE REQUIRED

Speech (Semester Course)
Careers (Semester Course)
English 2
Biology
PE & Health 2
Math (Algebra 2, Geometry,
Applied Math)
Modern American History (if didn't take Social Science)

SOPHOMORE ELECTIVES

Band
Choir
Art
Advanced Art
Intro to Agriculture, Food & Natural Resources (full year)
Animal Biology (full year)
Agricultural Leadership and Career Readiness
Agribusiness/Entrepreneurship
Welding
Food Science and Safety
Power, Structure and Technical Systems Fundamentals
Spanish 1/Spanish 2
Accounting 1
Accounting 2
Modern American History
General Science
Study Hall
Yearbook/Journalism
Digital Media
Information Technology
Intro to Business

JUNIOR REQUIRED

English 3
American History
Math (Algebra 2, Pre-Calculus, Geometry
Calculus, Applied Math)
Science- (General Science, Anatomy & Physiology,
Chemistry)

JUNIOR ELECTIVES

Band
Choir
Weight Lifting
Art
Advanced Art
Spanish 1
Spanish 2
Accounting 1
Accounting 2
Modern American History
Yearbook/Journalism
Adv. Yearbook/Journalism
Power, Structure & Technical Systems Fundamentals
Food Science and Safety
Agricultural Leadership and Career Readiness
Agribusiness/Entrepreneurship
Advanced Power, Structure and Technology Systems
Welding
Animal Biology
Nursery & Landscape

Metals and Fabrication
Business Economics
Business Law
Digital Media
Information Technology
Intro to Business
Study Hall

SENIOR REQUIRED

English (English 4, CC English-dual credit)
American Government

SENIOR ELECTIVES

Band
Choir
Weight Lifting
Weight Lifting 2
Art
Advanced Art
Spanish 1
Spanish 2
Accounting 1
Accounting 2
Modern American History
General Science
Anatomy & Physiology
Chemistry
Pre-Calculus
Calculus
Applied Math
Yearbook/Journalism
Adv. Yearbook/Journalism

Agricultural Leadership and Career Readiness
Agribusiness/Entrepreneurship
Animal Biology
Nursery & Landscape
Food Science and Safety
Welding
Metals and Fabrication
Adv. Power, Structure and Technology Systems
Business Economics
Business Law
Digital Media
Information Technology
Intro to Business
Physics
Study Hall

DUAL CREDIT CLASSES HIGH SCHOOL AND COLLEGE CREDIT

ONLINE DUAL CREDIT CLASSES THRU NORTHEAST COMMUNITY COLLEGE (\$49 PER CREDIT HOUR)

ENGL1010	English Composition I (1 st semester)	3 credits
ENGL1020	English Composition II (2 nd semester)	3 credits
MATH1150	College Algebra	3 credits
PSYC1810	Introduction to Psychology	3 credits
SOCI1010	Introduction to Sociology	3 credits
HIST2010	American History I	3 credits
HIST2020	American History II	3 credits
ACCT1200	Principles of Accounting (should have HS Acct. prior)	3 credits
SPCH1110	Public Speaking	3 credits
POLS1000	American Government	3 credits
HPER1550	Lifetime Wellness	3 credits
HIST1060	World History II	3 credits
GEOG1020	World Regional Geography	3 credits
AGRI1010	Animal Science	3 credits
WELD1030	Shielded Metal Arc Welding & Lab (O'Neill on Friday)	
WELD1035		
CNST1000	Building Construction Fundamentals & Lab (O'Neill on Friday)	
CNST1005		
HLTH1120	Medication Aide (O'Neill on Friday)	
HLTH1060	Medical Terminology (O'Neill on Friday)	

- ❖ See Mr. Dohrman if interested in any of the above classes.
- ❖ Various Ag classes are also available to take for dual credit or college credit. See Mrs. Dvorak if interested.

TO APPLY WITH NORTHEAST

Apply today on the Northeast Community Website at <https://northeast.edu/Admissions/Early-College/> and click on the "Apply Now" button or visit with Mr. Dohrman.

AFTER REGISTERING WITH NORTHEAST

1. An email will be send to the email address provided with information including your Student ID and instructions on how to log in to your my Northeast account.
2. Within one week of the start of the class, access your online class by going to <https://myclasses.northeast.edu/>
 - a. Your username is your Student ID. If you need assistance finding your student ID, please contact the Service Center help@northeast.edu or call 402-844-4357
 - b. Your Password is auto-generated and will be emailed to you "1 week prior" to the start of your online class. After you log into your online course, change your password by clicking on "Account" on the left-hand navigation and then clicking "Modify Details" and keying in your new password. To Access your course, click on the course name on the upper left-hand side of the screen.
3. If you need assistance with your online course please contact the Service Center at help@northeast.edu or call 402-844-4357 or contact Mr. Dohrman.

LANGUAGE ARTS

Graduation Requirements: 4.5 years (4 of which must be in English, .5 of which must be in Speech)

**ENGLISH I
ENGLISH III
SPEECH**

CC ENGLISH (dual credit from NECC online)

**ENGLISH II
ENGLISH IV
YEARBOOK/JOURNALISM**

ENGLISH 1 (required)

Course #101

Course work will involve a variety of activities within literature, composition, grammar, and vocabulary. Students will be expected to write essays, research papers, and shorter daily writing assignments like paragraphs. Literature will involve *Romeo and Juliet*, *Lord of the Flies*, and numerous excerpts from contemporary works as well as short stories and poetry. Students will be tested over vocabulary lists every week. Grammar exercises will be embedded into writing and reading activities as well as presented in stand-alone assignments. Students will begin honing skills like researching, presenting, and writing. Students will participate in the Poetry Out Loud program.

ENGLISH II (required)

Course #102

Course work will involve literature, composition, grammar, and vocabulary activities. Sophomores will read several novels including *To Kill a Mockingbird* and *And Then There Were None*. Students will also read and analyze short stories, and poems. Students will study weekly vocabulary lists and will be tested on those words weekly. To prepare for the ACT tests, there will be grammar assignments. Sophomores will write personal narratives, literary analysis essays, poetry, and shorter paragraph assignments. Research and presentation will be embedded into all major units. A research project on an Unsolved Mystery will be written using MLA formatting.

ENGLISH III (required)

Course #103

Juniors will perform a variety of literature, composition, grammar, and vocabulary assignments. The writing focus will be on persuasive essays and informative research papers, but compositions will also include poetry, narratives, and paragraphs. Literature features American stories and authors including *Of Mice and Men* and *The Great Gatsby*. Other works include short stories, memoirs, and poems. Grammar lessons will be both embedded into writing activities and offered as independent assignments. There will be weekly vocabulary lists and activities. Students will also complete activities in preparation for the ACT test.

ENGLISH IV

Course #104

The course involves a more in-depth work than previous grades; students will write persuasive/informative research papers and expository essays, encounter a variety of global works like *Beowulf* and *The Canterbury Tales*, as well as short stories and poetry. Students will have weekly vocabulary tests; grammar lessons will be embedded in writing exercises and reviewed in assignments. Students will develop technical writing skills by creating resumes, cover letters, memos, etc. Finally, students will research and apply ideas in presentations, discussion, and composition.

COLLEGE CREDIT ENGLISH (dual credit)

Course #105

ENGL1010 English Composition I	1st semester	3 credits
ENGL1020 English Composition II	2nd semester	3 credits

Available online from NECC

SPEECH (required)

Course #107e

Students will learn and perform informative, persuasive, extemporaneous, demonstrative, debate and other public speaking types of speech. Students will be expected to create various original speeches, perform speeches for an audience, and hone their natural speaking abilities for future careers, education, and relationships.

YEARBOOK/JOURNALISM

Course #108

Students will be taught the basics of journalism writing as well as the basics of page layout design and production. Students will be introduced to the elements of yearbook productions with a focus on areas such as photography, layout design and constructions, and copywriting and copyediting. Students will also be responsible for ad sales.

SOCIAL SCIENCES

Graduation requirements: 3 years (1 of which must be American History, and 1 of which must be American Government)

**SOCIAL SCIENCE
AMERICAN GOVERNMENT**

**AMERICAN HISTORY
MODERN AMERICAN HISTORY**

SOCIAL SCIENCE (required if not taking Modern American History as a sophomore)

Grade Level: 9 or 10

Course #201

The study of geography! This class takes a look at basic geographical ideas about the amazing world in which we live. It covers the physical as well as human aspects of every region of the world. Students will also have the opportunity to research your own past and create a detailed family tree project.

MODERN AMERICAN HISTORY (required if you didn't take Social Science as a freshman)

Grade Level: 9 or 10

Course #214

This class will focus on current events that are occurring in the US and around the world today. It will also cover events that took place and affected American history starting in the early 1900s. We will dive into the various wars fought in the 20th century and move our way up to the more recent events that are occurring today.

AMERICAN HISTORY (required)

Grade Level: 11

Course #202

The purpose of this course is to build the student's knowledge and appreciation of American History by discovering the past and present. This class will cover a period of time from the Civil War Era up to the Vietnam Era. Current events will also be discussed daily to take a look at what is taking place in our country today.

AMERICAN GOVERNMENT (required)

Grade Level: 12

Course # 203

The focus of this course is to prepare students to participate in exercising their political responsibilities as thoughtful and informed citizens. Students will study the development of government and political systems. They will have the opportunity to participate in mock elections and mock campaigns. Also, they will have the option to register to vote, to take part in an election, and to attend county/district court.

MATH

Graduation Requirements-3 years

**ALGEBRA 1
APPLIED MATH
GEOMETRY**

**ALGEBRA 2
PRE-CALCULUS
CALCULUS**

ALGEBRA 1

Grade Level: 9-12

Course #303

Algebra I is the introductory study of solving equations and inequalities and is meant to be for those who are competent in basic arithmetic. Students who take this class must show proficiency in arithmetic. It reviews tools needed and used like variables, exponents, order of operations, adding, subtracting, multiplying, dividing, distributing, and graphing. It studies solving equations and inequalities, proportions, graphs of functions, equations, and inequalities, exponents, factoring, quadratic equations, and radical expressions.

ALGEBRA 2

Grade Level: 9-12

Prerequisite: Algebra 1

Course #304

Algebra II is meant to be taken after, or along with, geometry. It reviews the tools needed like real number properties, algebraic expressions, solving equations and inequalities, solving absolute value equations and inequalities, and probabilities. It studies functions, equations, and graphs; linear systems; matrices; quadratic equations and functions; polynomials and polynomial functions; radical functions and rational exponents; exponential and logarithmic functions; rational functions; quadratic relations and conic sections; sequences and series; probability and statistics; and periodic functions and trigonometry.

GEOMETRY

Grade Level: 9-12

Prerequisite: Algebra 1

Course #305

Geometry is all about shapes and their properties. Students who take it need to have completed Algebra I successfully. It reviews the tools needed like concepts of lines, points, and planes; linear measure; distance and midpoints; angle measurement; and two-dimensional as well as three-dimensional figures. It studies reasoning and proofs; parallel and perpendicular lines; congruent triangles; relationships in triangles; quadrilaterals; right angles and trigonometry; transformations and symmetry; circles; areas; volumes; and probability and measurement.

PRE-CALCULUS

Grade Level 11-12

Prerequisite: Algebra 1, Geometry, and Algebra 2

Course #306

Pre-calculus (Advanced Mathematical Concepts) prepares a student to take calculus. Students should have completed geometry and algebra II. It studies linear relations and functions; systems of linear equations and inequalities; the nature of graphs; polynomials and rational functions; trigonometric functions and inequalities; vectors and parametric equations; polar coordinates and complex numbers; conics; exponential and logarithmic functions; sequences and series; combinatorics and probability; statistics and data analysis; and introduction to calculus.

CALCULUS**Grade Level: 11-12****Prerequisite: Algebra 1, Geometry, Algebra 2****Course #317**

Calculus is for students who have completed geometry, algebra II, and some class that included trigonometry (Pre-calculus, Func-Stat-Trig, etc.). Before calculus can be started students need to show understanding of slopes of lines, equations of lines, horizontal and vertical lines, tangent lines, graphs of families of equations, shifting and reflecting, piecewise functions, absolute values, sideways parabolas, polynomials, increasing and decreasing areas of functions, maximums, minimums, intercepts, asymptotes, rational functions, exponents and logarithms, factoring, the unit circle, Pythagorean identities, identities, trig functions, and basic graphs. The first part of the class reviews each of these and then calculus is taught. Calculus studies limits and continuity, differentiation, and integration and many of their applications.

APPLIED MATH**Grade Level: 11-12****Prerequisite: Algebra 1****Course #302**

Applied math is designed to reinforce math operations using a variety of practical, real life situations that facilitate the understanding of using mathematics in daily living exercises. Emphasis is on applying mathematics in the use of money, personal financial situations and solving home and work problems by using the concepts of fundamental mathematics. Students practice these strategies within the context of simulations designed to reinforce the understanding of basic operations, as well as the application of these operations within technological tools that enhance understanding and accuracy.

CC MATH (dual credit)**Course #320****MATH1150 College Algebra (First Quarter) 3 credits****MATH1220 Trigonometry (Second Quarter) 3 credits****MATH2000 Analytic Geometry & Calculus 2nd semester 5 credits****Available through Distance Learning from NECC**

SCIENCE

Graduation Requirements: 3 years (2 of which must be Physical Science and Biology)

**PHYSICAL SCIENCE
GENERAL SCIENCE
CHEMISTRY
ANIMAL A & P (taught every other year)**

**BIOLOGY
ANATOMY & PHYSIOLOGY
PHYSICS (Distance Learning)**

PHYSICAL SCIENCE (required)

Grade Level: 9

Course #401

This course is an introduction into high school science. Students will study many different equations calculating density, acceleration, energy, etc. The course then moves on to Chemistry where the goal is to determine and understand parts of the atom, ionic and covalent bonding, and chemical compounds. Finally, the class covers energy, work, and simple machines.

Physical Science uses scientific method, lab skills, research, and problem solving. It enforces basic skills needed throughout high school.

BIOLOGY (required)

Grade Level: 10

Course #402

The study of life. Biology is required to be taken by all students, mainly sophomores. In biology, students will learn about life and its processes. Studying ecology, students will be able to identify habitat, communities, and ecosystems. Parts and functions of eukaryotic and prokaryotic cells will be researched. Labs including creating an ecosystem are included in this course. Finally, the course outlines human biology and life classifications.

GENERAL SCIENCE

Grade Level: 10-12

Course #403

This is a course offered that may be used to fulfill the three-year requirement of science. General science covers many areas of science. Chemistry, Physical Science, and Biology topics will be investigated individually and collectively to understand how they relate to each other.

Hands on learning will help students understand many of the key concepts to this course. Designing labs and using student inquiry are important in general science.

ANATOMY AND PHYSIOLOGY

Grade Level: 11-12

Prerequisite: Physical Science & Biology with at least a C average

Course #404

A & P is a course offered to junior and seniors that have successfully completed both physical science and biology with at least a C average. It is an upper level class, with a goal to prepare students for college science classes.

The anatomy portion of the course involves an in depth look at the organization of the human body. Topics include: Organization of the human body, cell contents and function, and body systems.

Physiology is the study of how different parts of the body function. The physiology aspect of this course studies the various ways the human body is affected by disease, medicine, and exercise.

Homework is a minimum; however, the multitude of information is frequently quizzed and tested.

CHEMISTRY

Grade Level: 11-12

Prerequisite: Physical Science, Biology, and Algebra 1

Course #405

Chemistry is a course that is offered to juniors and seniors that have successfully passed physical science, biology, and at least algebra 1. It is an upper level class that helps prepare students for a college education.

This course is a complex class that delves into the parts of an atom, the organization of the periodic table, and different chemical bonds. Chemistry also covers the history of chemistry and its different models. During chemistry, students will also determine molar mass, analyze reactions, and notice different energy relationships. Finally, students will learn about stoichiometry, a necessity for college level chemistry classes.

Many labs and calculations compile the information covered in this course.

PHYSICS

Grade Level: 11-12

Prerequisite: 2 years of Science and Algebra

This course is taught through Distance Learning

Course #406

Physics is a course for juniors and seniors interested in science. Students will study mechanics, waves, electricity, bridges, and their design.

Animal A & P (Veterinary Science)

Grade Level 11-12

Full Year

Prerequisite: Animal Biology

Course #819

Students will gain knowledge of skeletal, muscular, respiratory, digestive, and circulatory systems of animals. Students will identify methods of disease control, treatment and prevention. Finally, the course will explore the advancements that are being made with genetics and biotechnology in the animal industry. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities of the FFA.

PHYSICAL EDUCATION

PE I AND HEALTH WEIGHT LIFTING

PE II AND HEALTH WEIGHT LIFTING II

PE I AND HEALTH (required)

Grade Level: 9

Course #501

This course provides a history of many team and individual activities. Information about the care of equipment, basic knowledge of rule and techniques will be stressed. Different ideas about strategies, safety concerns and physical benefits of participating will also be covered.

Health emphasizes the state of one's well-being that includes how you feel physically, mentally and socially.

PE II AND HEALTH (required)

Grade Level: 10

Course #502

Physical education II is a more comprehensive course that will provide the students with the opportunity to better develop the skills learned in PE I.

Health will also be required as per PE I

WEIGHT LIFTING

Grade Level: 11-12

Prerequisite: PE I and PE II and approval of Instructor

Course #503

Weight lifting will be offered to students for the opportunity to better condition their body. Students will be expected to do required core lifts daily. The students will be expected to warm up joints and muscles before participation and cool down after they have completed this work out. The students will be expected to show improvement during the course through different testing exercises.

WEIGHT LIFTING II

Grade Level: 12

Prerequisite: PE I, PE II, Weight Lifting I with a 94% or higher and instructor approval.

Course #504b

FINE ARTS

ART MUSIC (BAND & CHOIR)

ADVANCED ART

ART Course #601

Art I includes work in a variety of media, including some of the following: drawing, watercolor painting, acrylic painting, printmaking, pottery, and sculpture. Study of the elements of art and principles of design and art history are also included. Methods of preparing clay for hand building, throwing on the pottery wheel and glazing are explored.

ADVANCED ART Prerequisite: Art I Course #602

Advanced art is open to students who have taken Art 1 and includes work in areas similar to Art I at a more advanced level. It may also include some individualized work so that students may choose to specialize in a specific area.

MUSIC-BAND AND CHOIR Band Course #606 Choir Course #603

Music was introduced to each one of us in our formative preschool years. Then we enjoyed and learned more about music on the elementary and middle school level. In junior high we joined the band and sang in the choral group. Those were the preparation years for high school. We owe it to ourselves to Not Stop There. Music is a basic to our overall education as any other subject if we take advantage of it and use it. Today's society demands us to be well educated and research has shown that music increases a student's intellectual abilities.

RCHS Music Department provides an opportunity for students to continue their pursuit of musical education, participation, and employment. The co-curricular offering of our music program includes: marching band, concert band, pep band, jazz band, conference band, attend District Music contest, participate in honor bands, and the John Philip Sousa award for seniors. Concert choir, girls' glee, boys' glee, small ensembles, solo performances, participate in honor choir and private lessons.

RCHS class schedule is set up to allow students to take part in music classes.

INDIVIDUAL BAND LESSONS Course #606e

Students will receive individualized lessons on a daily basis. These lessons will include preparation for concerts, pep band, honor band auditions, and small ensembles.

FOREIGN LANGUAGE

SPANISH I

SPANISH II

SPANISH I **Course #604**

Spanish I is an introductory course stressing basic language skills (reading, writing, speaking and listening) and acquisition. Specifically, Spanish I students will:

- Use the target language to communicate within and beyond the classroom setting using high frequency structures, supplemental vocabulary, grammar and idiomatic expressions.
- Use the target language to develop an understanding of the customs, arts, authentic texts, history and geography associated with Hispanic countries.
- Use the target language to make connections and reinforce knowledge and skills across academic, vocational and technical disciplines.

SPANISH II **Prerequisite: Spanish I** **Course #605**

Spanish II is a continuation of skills and content learned in Spanish I. Specifically, Spanish II students will:

- Build upon foundations of Spanish I by adding more complex structures, supplemental vocabulary and idiomatic expressions.
- Use the target language to explore popular and traditional music and film.
- Master grammatical conventions such as complex verb tenses and modes.
- Continue to use the target language to make connections and reinforce knowledge and skills across academic, vocational and technical disciplines.

BUSINESS

**PERSONAL FINANCE
CAREERS
BUSINESS ECONOMICS
DIGITAL MEDIA**

**ACCOUNTING I
ACCOUNTING II
BUSINESS LAW
INFORMATION TECHNOLOGY
INTRO TO BUSINESS**

PERSONAL FINANCE (required)

Grade Level: 12

Course #700

This course will provide a foundation for financial literacy. Areas touched on are stock market, keeping a checkbook, basic banking knowledge, money management strategies, and understanding a personal balance sheet.

CAREERS (required)

Grade Level: 10

Course #708

Careers is a semester long sophomore course. Careers is a course designed to help students transition into the world of work. This course introduces students to several job clusters and gives them the opportunity to evaluate their own aptitudes in relation to different careers. Guest Speakers, student experience, and textbook content are tied specifically to the workplace. Career cruising and Internet sites are also used for student career exploration. Other areas covered will be resumes, job applications, interviewing, college exploration and college applications.

BUSINESS LAW

Senior level class

Course #705

The study of how laws pertain to our everyday business dealings. Specifically, contract law, buying and selling goods, credit transactions, employment contracts, ownership of real and personal property, insurance, income tax, and commercial paper as well as in depth study of partnership and corporations.

BUSINESS ECONOMICS

Course #704

The study of how Economics affects our lives. Included topics are: consumer role, going into debt, buying necessities, saving and investing, making career decisions, income & taxes, how to be a savvy consumer, and money management.

ACCOUNTING I

Course #701

Study of the system of keeping financial records for an individual, a sole proprietorship, a partnership, and a corporation. This includes both service and merchandising businesses. We learn such things as how to keep checkbooks, prepare income statements, prepare balance sheets, etc. Very important class for all students no matter what future plans they have.

ACCOUNTING II

Prerequisite: Accounting I

Course #702

Introduction to principles of debit and credit, recording of purchases and sale of merchandise and equipment, calculation and recording of interest and depreciation. Includes methods of determining inventory values, and payroll procedures. Preparation of statements for a service and merchandising business and completing a financial analysis. Includes procedures for handling uncollectible accounts. Takes a deeper look into the accounting process.

INFORMATION TECHNOLOGY**Grade Level: 9-12****Course #719**

Students will explore emerging technologies as it applies to their success for high school, college, and career. The focus will be on the importance of digital citizenship, professional communication practices, advanced document processing, professional presentations, and spreadsheet applications.

You will be required to sign an Internet User Agreement prior to ANY use of the Internet.

INTRO TO BUSINESS**Grade Level: 9-12****Course #718**

This course is designed to introduce students to the Business, Marketing, and Management Career Field, which focuses on organization, economics, management, marketing, financial management, and operations. Career opportunities and technology used in business will also be discussed.

DIGITAL MEDIA**Grade Level: 9-12****Course #720**

Students will create, design, and produce digital media including sound, video, and graphics. Emphasis will be placed on Adobe products, primarily Photoshop, as well as diving into video production and possibly live streaming various school events.

AGRICULTURE, FOOD AND NATURAL RESOURCES

YEAR LONG COURSES:

INTRODUCTION TO AGRICULTURE, FOOD AND NATURAL RESOURCES
**ANIMAL ANATOMY AND PHYSIOLOGY (VETERINARY SCIENCE)
ANIMAL BIOLOGY
NURSERY AND LANDSCAPE
METALS AND FABRICATION
PLANT SCIENCE/HORTICULTURE
INTRO TO POWER, STRUCTURE AND TECHNICAL SYSTEMS FUNDAMENTALS
ADVANCED POWER, STRUCTURE AND TECHNOLOGY SYSTEMS
WELDING
AGRICULTURAL LEADERSHIP AND CAREER READINESS
FOOD SCIENCE AND SAFETY
DUAL CREDIT WELDING

SEMESTER COURSES:

PRECISION AGRICULTURE & ENGINEERING
BIOTECHNOLOGY
AGRIBUSINESS
ENTREPRENEURSHIP
NATURAL RESOURCES
WILDLIFE MANAGEMENT

***All students enrolled in agricultural education must also maintain FFA membership. To stay in FFA, students must be enrolled in 1 semester of agriculture per 4 continuous semesters. Any prerequisites or grade requirements may be waived with instructor approval.**

****Available for science credit and requirements**

Being taught for the 2020-2021 school year

Introduction to Agriculture, Food and Natural Resources

Grade Level: 9-10

Prerequisite: None

Full Year

Course #815

This introductory course provides a brief knowledge base and technical skills of several topics within the agricultural industry, including production agriculture, food and natural resources, cluster foundation knowledge and skills, leadership development, the National FFA organization and career exploration. Topics within this course are intended to spark interest in future courses and careers for students. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

Animal Biology

Grade Level: 10-12

Prerequisite: Intro to AFNR

Full Year

Course #812

A course focusing on the basic scientific principles and processes that are involved in animal physiology, breeding, nutrition, and care in preparation for an animal systems career. Topics include animal diseases, introduction to animal science, animal nutrition, animal science issues, career opportunities and animal evaluation. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

#Animal Anatomy & Physiology (Veterinary Science)

Grade Level 11-12

Full Year

Prerequisite: Animal Biology

Course #840

Students will gain knowledge of skeletal, muscular, respiratory, digestive, and circulatory systems of animals. Students will identify methods of disease control, treatment and prevention. Finally, the course will explore the advancements that are being made with genetics and biotechnology in the animal industry. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities of the FFA.

Agricultural Leadership and Career Readiness

Grade Level 10-12

Full Year

Prerequisite: Intro to AFNR

Course #802

This course will help prepare students for their futures by introducing and elaborating on leadership concepts and application, leadership in a community, characteristics of an effective leader, characteristics of an effective manager, individual personality traits, job applications and interviews, resumes, scholarship applications, and more. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

Agribusiness

Grade Level: 10-12

Fall Semester

Prerequisite: Intro to AFNR

Course #805

This course covers skills necessary for entry into employment or furthering education in an agriculture business. The course includes the study of business organizations, business structures, job responsibilities, human relations, marketing, selling, displaying, using business machines, management and entrepreneurship skills. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

Entrepreneurship

Grade Level: 10-12

Spring Semester

Prerequisite: Intro to AFNR

Course

This course covers skills necessary for creating and managing an agricultural business. The course includes the study of business planning, creating and analyzing financial information, developing business plans, and applying sales and marketing principles. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

Plant Science/Horticulture

Grade Level: 10-12

Full Year

Prerequisite: Intro to AFNR

Course #825

This course focuses on knowledge, information, and skills related to the science of plant production and agronomy and provides the necessary skills for careers in horticulture, agricultural production and management, and science. The content includes plant growth and reproduction, fertilizers, plant and tree identification, controlling weeds and pests, and proper use of agricultural chemicals. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

Nursery and Landscape

Grade Level: 11-12

Full Year

Prerequisite: Plant Science/Horticulture

Course #828

Introduces students to the principles of design, methods of establishing and maintaining landscapes, and landscape business management procedures. Includes arranging plants, objects, and earth in the landscape; covers culture and maintenance of plants. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

Natural Resources-combined with Wildlife Management

Grade Level 10-12

Fall Semester

Prerequisite: Intro to AFNR

Course #834

Introduces conservation management and maintenance of natural resources and good stewardship of air, soil, water, land, fish, and wildlife resources for economic, recreation, and health purposes. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

Wildlife Management-combined with Natural Resources

Grade Level 10-12

Prerequisite: Intro to AFNR

Spring Semester

Course #830

Introduces management practices for the several Nebraska game animals such as deer, pheasants, coyotes, and many more. Students will learn about proper habitat management as well as explore the management practice of hunting. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

Food Science and Safety

Grade Level: 10-12

Prerequisite: Intro to AFNR

Full Year

Course #837

This course focuses on the importance of a safe, sanitary and reliable food supply for human consumption. Topics explored include food safety regulations and requirements in processing facilities and food service establishments, along with home-handling of foods. Students will also learn to identify pathogenic foodborne illnesses and identify methods to prevent and control those illnesses in various types of food products. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

Power, Structure and Technical Systems Fundamentals

Grade Level 10-11

Prerequisite: Intro to AFNR

Full Year

Course #833

Class Limit: 8 students

This course introduces selected major areas of agricultural mechanics and technology including small engine operation and repair, metal fabrication, wood working, and electrical wiring. Learning activities include basic understanding, skill development and problem-solving. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

Welding

Grade Level 10-11

Prerequisite: Intro to AFNR

Full Year

Course #820

Class Limit: 8 students

This class will introduce shop rules and safety procedures. Students will learn how to perform the following welds: shielded arc welding, oxy-fuel welding, and gas metal arc welding (MIG or wire welding). They will become proficient at welding the following welds: beads, butt welds, t-welds, lap welds, corner welds, and pipe welds. They will perform these welds in several positions including flat, horizontal, vertical, and overhead. Students will also learn how to cut metal with a gas torch and plasma cutter. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities of the FFA.

Metals and Fabrication

Grade Level 11-12

Prerequisite: Welding

Full Year

Course #820a

Class Limit: 8 students

Metals and fabrication is an advanced welding course that will require students to take what they learned in welding and apply that to a manufacturing process. The class will work on a final project that will be sold to the public. Students will also have the opportunity to work towards welding certifications. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities of the FFA.

Advanced Power, Structure and Technology Systems

Grade Level 11-12

Prerequisite: Power, Structure and Technical Systems Fundamentals

Full Year

Course #833a

Class Limit: 8 students

Provides advanced-level experiences in selected major areas of agricultural mechanics technology; includes small engine maintenance and repair, metal fabrication, concrete construction, building construction, plumbing, electrical wiring, maintenance of agricultural machinery, equipment and tractors, and soil and water conservation. Learning activities include basic understanding, skill development and problem-solving. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

Precision Agriculture and Engineering-combined with Biotechnology

Grade Level 10-12

Prerequisite: Intro to AFNR

Fall Semester

Course #855

This course provides a general study of precision agriculture and the related engineering. It also provides the opportunity to explore the careers in agricultural related to precision agriculture. Topics include, but are not limited to, hydraulics, John Deere online operations, irrigation technology, GPS and drones. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

Biotechnology-combined with Precision Agriculture and Engineering

Grade Level 10-12

Prerequisite: Intro to AFNR

Spring Semester

Course #856

This course provides students with experiences in industry appropriate applications of biotechnology related to plant and animal agriculture. Students will complete hands-on activities, projects, and problems designed to build content knowledge and technical skills in the field of biotechnology. Students will maintain a research level Laboratory Notebook throughout the course documenting their experiences in the laboratory to highlight the application of the scientific method and investigation practices. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.