2019-2020 NORTHWEST HIGH SCHOOL COURSE DESCRIPTION GUIDE

Graduation Requirements

English	40 credits	4 years	
Math	30 credits	3 years	
Science	30 credits	3 years	
Social Studies	25 credits	2 ½ years	
Government	5 credits	1 semester	
PE	5 credits	1 semester	
Health	5 credits	1 semester	
Communications	5 credits	1 semester	
Personal Finance	5 credits	1 semester	
Practical/Fine Arts*	20 credits		
Electives	90 credits		
Total	260 credits		
40 Hours of Community Service also Required			

**Practical/Fine Arts = Ag, Art, Business, Drama, Engineering, Family & Consumer Science, Health Science, Industrial Tech, Music, Newspaper, Speech and Yearbook*

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QUICK REFERENCE - COURSE LISTING

For more class details please refer to the pages following this chart.

Course	**Length**	**Grade**	**Prerequisites**
Agriculture			
Animal Science	Semester	10,11,12	
Companion Animals	Semester	10,11,12	
Floriculture	Semester	10,11,12	
Horticulture	Semester	10,11,12	
Intro to Ag. Sciences	Year	9,10	
Sup. Ag Experience	Year	12	Teacher permission
Veterinary Science	Spring	11,12	B or higher in Anim. Science and Companion Animals
Wildlife Management	Semester	10,11,12	
Art			
Art I	Semester	9,10,11,12	
Art II	Semester	9,10,11,12	Art I- 74% or higher
Art III	Sem/Year	10,11,12	Art II- 74% or higher
Art IV	Sem/Year	11,12	Art III- 74% or higher or teacher permission
Art V	Sem/Year	12	Art IV-74% or higher or teacher permission
Business/Career			
Accounting	Year	10,11,12	10th graders with teacher permission
Advanced Accounting	Year	11,12	Accounting
Business Law	Semester	10,11,12	
Careers	Semester	10	
Career Essentials	Semester	11,12	2 period block, have a driver's license and transportation
Marketing/Entrepreneurship	Sem/Year	10,11,12	Teacher permission
Information Tech App	Semester	9,10,11,12	
Information Tech App II	Semester	10,11,12	Info. Tech App
Intro to Bus,Mar,Mmt	Semester	9,10	
Personal Finance	Semester	10	
Reality 101	Semester	12	
Drama/Debate			
Drama 1	Semester	9,10	
Drama 2	Fall	9,10,11,12	Audition
Debate & Advocacy	Semester	11,12	Communications

Engineering Pathway			
Intro to Engineering Design	Year	9,10,11	Algebra I is required or can be taken at the same time
Principles of Engineering	Year	10,11,12	Intro to Eng.- 86% or higher
Civil Engineering/Architecture	Year	11,12	Prin. of Eng. - 86% or higher
Engineering Design/Develop	Year	12	Completion of any two of the following, IED, POE, CEA CSP, CSA, PBS, or MI
Computer Science Principles	Year	10,11,12	Algebra I- 86% or higher
Computer Science Applications	Year	11,12	Computer Science Principles
Cybersecurity	Year	10,11,12	
Robotics	Year	10,11,12	
English/Speech- 4 years of English and 1 semester of Communication required			
English 9	Year	9	
English 10	Year	10	
Adv. American Literature	Year	11	Reading MAP score in 88th % or teacher approval
American Literature	Year	11	
Literature 11A	Year	11	Teacher recommendation, NOT accepted by Univ of NE system or NCAA
Adv. College Prep Literature	Fall	12	80% or above in Amer. Lit, teacher recommendation
Adv. College Prep Writing	Spring	12	80% or above in Amer. Lit, teacher recommendation
AP English	Year	12	86% or above in Amer. Lit, teacher recommendation
CCC English Composition	Fall	12	ACT Reading & Writing 18+, paperwork, tuition costs
CCC Writing & Research	Spring	12	ACT Reading & Writing 18+, paperwork, tuition costs
Communication Arts 12	Year	12	Teacher rec., NOT accepted by Univ of NE system or NCAA
Senior English	Year	12	NOT accepted by Univ of NE system or NCAA
Communication	Semester	10 (9th allowed)	
Family Consumer Science			
Fundamentals of Food & Nutrition	Semester	9,10,11	
Nutrition Science	Semester	11,12	
Culinary Skills	Semester	10,11,12	Fundamentals- - 78% or higher
Culinary Skills 2	Semester	10,11,12	Culinary Skills 1-- 78% or higher
ProStart 1	Year	10,11,12	Fundamentals of Foot & Nutrition 78% or higher
Human Development	Semester	9,10,11,12	
Intro to Design Principles	Semester	10,11,12	
Home Design & Interiors	Semester	10,11,12	Intro to Design Principles 78% or higher

Health Science			
Intro Health Science	Semester	9,10,11	
Prin of Biomedical Science	Year	10,11,12	C or higher overall GPA
Medical Interventions	Year	12	PBS and either HBS or A & P- 78% or higher
Intro to Sports Medicine	Year	10,11,12	
Industrial Technology			
Exploring Ind. Tech	Year	9,10	Safety glasses
Advanced Manufacturing	Year	10,11,12	Manufacturing 1- 86% or higher
Career Pathways Institute	Year	11,12	Programs in Auto, Manufacturing, Carpentry, Info. Tech, Welding application required
Carpentry	Year	11,12	Con. Sys. and teacher permission
Construction Systems	Semester	10,11,12	Safety glasses
Consumer Auto	Semester	10,11,12	Safety glasses
Drafting & Design	Semester	10,11,12	
Home Maintenance	Semester	10,11,12	Safety glasses
Manufacturing 1	Semester	10,11,12	Safety glasses
Woods 1	Semester	10,11,12	Safety glasses, lab fee
Woods 2	Semester	11,12	Tape measure and safety glasses required, project fee
Journalism / Media Arts			
Digital Broadcasting	Year	10,11,12	Teacher permission
Digital Media 1	Semester	10,11,12	
Digital Media 2	Sem/Year	10,11,12	Dig. Media 1 and teacher permission
Newspaper	Year	10,11,12	90% or higher in previous English class, teacher permission
Photography	Semester	10,11,12	
Yearbook	Year	10,11,12	90% or higher in previous English class, teacher permission
Math- 3 years of Math required			
Algebra A	Year	9	Placement test and teacher recommendation
Algebra B	Year	10	Algebra A
Algebra 1	Year	9, 10	Placement test and teacher recommendation
Geometry	Year	9,10,11,12	
Math Applications	Sem/Year	12	Teacher rec., Geo., NOT accepted by Univ. of NE system or NCAA
Algebra II	Year	10,11,12	Algebra I and Geometry
Trig/Pre-Calculus	Year	11,12	Geometry and Alg II with a 78% or higher or teacher permission
Discrete Math	Sem/Year	11,12	Algebra II
AP Calculus	Year	12	Trig/Pre-Calculus with a 78% or higher or teacher permission
CCC College Algebra	Spring	11,12	Trig/Pre-Calculus, ACT Math 22+ is required for CCC credit

CCC Applied Statistics Math	Fall	11,12	Trig, ACT Math 22+ is required for CCC credit
Misc			
ACT Prep Course	Semester	9,10,11,12	
Kitchen Aide	Sem/Year	9,10,11,12	Permission from Foods Service Manager
Music			
Band	Sem/Year	9,10,11,12	Previous instrumental experience preferred
Freshmen Music	Sem/Year	9	
Freshmen Choir	Sem/Year	9	
Percussion Ensemble	Sem/Year	9,10,11,12	
Music History	Sem	9,10,11,12	
Pop Music HIstory	Sem	9,10,11,12	
Instrumental Music Lessons	Sem	9,10,11,12	No experience necessary, desire to learn a new instrument
Beginning Guitar	Sem	10,11,12	Guitar needed, limited number available through school
Rock Band	Sem	9,10,11,12	No experience required
Wind Ensemble	Sem	10,11,12	Audition
Orchestra	Year	9,10,11,12	Previous string experience required
Musical Theater	Sem/Year	9,10,11,12	
Music Theory I, II, III, or IV	Year	10,11,12	
Vocal Music	Sem/Year	10,11,12	Choirs are selected by audition
Online Classes			
CCC, Peru, UNL classes	Sem	10,11,12	Registration, cost, placement test with qualifying scores
Physical Education/Health- 1 sem. PE & 1 sem. Health class of 2020+			
Fitness Education	Sem/Year	9,10,11,12	
Health	Semester	9	
Sports Performance	Sem/Year	9,10,11,12	Summer Lifting sessions and teacher permission
Strength Training	Sem/Year	9,10,11,12	Athletic shoes, shorts, t shirt, all, must be school appropriate, lock required
Resource			
Academic Foundations	Year	9,10,11,12	Student must have an I.E.P.
Reading Essentials	Year	9,10,11,12	Recommendation of teacher and/or IEP team
Science- 3 years of Science required			
Integrated Physical Science	Year	9	
Biology	Year	10	
Chemistry	Year	11	Grade of 78% or higher in Alg. I

Chemistry in the Community	Year	11	NOT accepted by Univ. of NE system or NCAA
Principles of Technology	Year	11	
Advanced Chemistry	Year	12	Chemistry- 80% or higher
CCC Physics	Year	11,12	Algebra II- 87% or higher
Anatomy & Physiology	Year	11,12	Biology- 86% or higher
CCC Biology	Year	12	Teacher permission
Social Studies-3 years of Social Studies required			
Social Studies 1 & 2	Year	9	
AP American History	Year	10,11	Social Studies- 87% or higher, teacher recommendation
American History	Year	11(LImited 10th)	
Government	Semester	12	
CCC Macroeconomics	Semester	11,12	ACT or Compass, previous or concurrent AP class or Trig/Pre-Calculus
CCC Microeconomics	Semester	11,12	ACT or Compass,previous or concurrent AP class or Trig/Pre-Calculus
60's and Beyond	Semester	10,11,12	
Psychology	Semester	11,12	
Sociology	Semester	11,12	
World Languages			
French 1 & 2	Year	9,10,11	
French 3 & 4	Year	10,11,12	French 1 & 2
Spanish 1 & 2	Year	9,10,11	
Spanish 3 & 4	Year	10,11,12	Spanish 1 & 2
Spanish 5 & 6	Year	11,12	Spanish 3 & 4
Spanish 7 & 8	Year	12	Spanish 5 & 6
German 1 & 2	Year	9,10,11	
German 3 & 4	Year	10,11,12	German 1 & 2
Senior Options			
Career Exploration	Sem/Year	12	
Central Community College	Sem/Year	12	ACT, minimum grade requirement, required paperwork
Cooperative Education Prog.	Sem/Year	12	Job required before starting program, teacher permission
Teacher Apprentice Program	Sem/Year	12	Students must furnish own transportation

AGRICULTURE

INTRODUCTION TO ENVIRONMENTAL AND AG SCIENCES (Year)

Level: 9, 10

The introductory course for the Agriculture, Food and Natural Resources Career Cluster provides a knowledge base and technical skills in all aspects of the industry. Learners will be exposed to a broad range of agriculture, food and natural resources careers, cluster foundation knowledge and skills, introduction to leadership development, the FFA organization and career exploration. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

ANIMAL SCIENCE (Semester)

Level: 10, 11, 12

This is 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.

COMPANION ANIMALS (Semester)

Level: 10, 11, 12

This class focuses on companion animals (dogs, cats, horses, and small animals) and Pre-Veterinary Science. Instruction includes production, care and management of animals including animal health, nutrition, animal reproduction, breed identification, anatomy, disorders and grooming aspects. Students will also use basic veterinary science skills and vocabulary.

FLORICULTURE (Semester)

Level: 10, 11, 12

This course introduces business procedures, design principles, and production techniques used in retail and wholesale floral businesses. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

HORTICULTURE (Semester)

Level: 10, 11, 12

This course focuses on the broad field of horticulture, with emphasis on the scientific and technical knowledge for a career in horticulture. Topics in this course include plant growth and development, plant nutrition, media selection, basic plant identification, pest management, chemical disposal, and customer relations. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

VETERINARY SCIENCE (Semester)

Level: 11, 12

Prerequisite: Animal Science AND Companion Animals classes passed with at least a B

This course will introduce students to the basics of animal care. Topics covered include terminology, anatomy, disease, parasites, feeding, shelter, grooming, and general animal care. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

WILDLIFE MANAGEMENT/NATURAL RESOURCES (Semester)

Level: 10, 11, 12

This course has an emphasis on the conservation of natural resources including outdoor recreation topics and provides students with the opportunity to understand and appreciate the importance of maintaining the land and ecological systems that enable non-domesticated animals to thrive. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

SUPERVISED AG EXPERIENCE (SAE) (Year)

Level: 12 – This is a course offered by Permission of the Ag Instructor only.

Students will apply class time to developing and updating existing SAE Projects and records, applying for area, state and national FFA awards and scholarships, design, develop and do research on an agricultural related subject. Students will be required to document all progress and activities completed during the semester.

ART

ART I (Semester)

Level: 9, 10, 11, 12

This course is an introduction to the beginning art elements and principles while learning about some of the following topics: drawing techniques, color, design, sculpture, painting, watercolor, and pottery. Students will exhibit artwork at the end of the year.

ART II (Semester)

Level: 9, 10, 11, 12

Prerequisite: Completion of Art I with a grade of 74% or higher.

This course is a continuation of Art 1. Students will continue to learn about the art elements and principles while continuing to learn new mediums. Students will exhibit artwork at the end of the year.

ART III (Semester or Year)

Level: 10, 11, 12

Prerequisite: Completion of Art II with a grade of 74% or higher. If a student is taking this course as a year, a grade of 74% or higher is required during 1st semester to move onto 2nd semester.

This course focuses on developing a higher skill level with the different mediums, while relating the elements and principles to these mediums. Students will exhibit artwork at the end of the year.

ART IV (Semester or Year)

Level: 11, 12

Prerequisite: Completion of Art III with a grade of 74% or higher or with art teacher's approval. If a student is taking this course as a Year, a grade of 74% or higher is required during 1st semester to move onto 2nd semester.

Within this course, students are given more freedoms as an artist. Students will learn advanced techniques and work on a larger scale. Students will exhibit artwork at the end of the year.

ART V (Semester or Year)

Level: 12

Prerequisite: Completion of Art IV with a grade of 74% or higher or with art teacher's approval. If a student is taking this course as a year, a grade of 74% or higher is required during 1st semester to move onto 2nd semester.

This course is an independent course where students are encouraged to experiment with mediums of their own choice in an independent study or to work towards a college portfolio. Students will exhibit artwork at the end of the year.

BUSINESS/CAREER

ACCOUNTING (Year)

Level: 10 (with permission), 11, 12

This two semester course is designed to give high school students an overview of an online computerized accounting software. This course has critical thinking activities, real world applications, and enhanced technology to help you make informed business decisions. Students will analyze transactions, journalize, post, and complete financial statements. Students will work with service and merchandising businesses, sole proprietorships, partnerships, and corporations.

ADVANCED ACCOUNTING (Year)

Level: 11, 12

Prerequisite: Accounting

This two semester course is designed for high school students to refresh, improve, and broaden knowledge mastered in Accounting. This course will continue the online computerized accounting software and deeper understanding of financial statements. The course includes departmentalized accounting, payroll, adjustments, corporations, management, and analysis

BUSINESS LAW (Semester)

Level: 10, 11, 12

A course designed to present the study of the legal rights and responsibilities necessary to be informed and productive citizens. Key concepts include: contracts and torts, the role of courts, litigation, and constitutional issues including civil and criminal law. A field trip to the courthouse is included.

CAREERS 10 (Semester)

Level: 10 required

Students will explore career and college options while learning about themselves. Students will take personal assessments and learn what the assessments mean in relation to future career opportunities, explore various career clusters, research different types of colleges, and complete a job unit—filling out a job application, creating a resume and a separate page with references, writing a cover letter, participating in mock interviews, and writing a thank you letter. In addition, college visits and guest speakers are part of the class.

CAREER ESSENTIALS (Semester, 2-Period Block)

Level: 11 or 12 (1st Semester age 16 by August 25)

Students will alternate time in the classroom with on-site work-based job shadowing experiences.. Students will demonstrate progress/proficiency of the Nebraska Career Readiness Skills, which are an expectation in today's workforce. They will apply the career and college planning process using the Nebraska Career Education Model and resources extending upon what they learned in the sophomore Careers class. Students will have the opportunity to observe and gain valuable real life experiences at numerous local businesses. A coordinator will help students schedule and will supervise job shadowing experiences with Northwest High School's Business Partners. Must furnish own transportation.

INFORMATION TECHNOLOGY APPLICATIONS I (Semester)

Level: 9, 10, 11, 12

Students will get hands-on experience with the latest technology to gain a competitive edge in today's job market or the next step in their academics. As a result, students will demonstrate skills required to earn their Microsoft Office Specialist (MOS) Certification in Word, Excel, and/or PowerPoint. Students will become familiar with and learn the features of Google Docs, Sheets, Slides, and other Google Apps and Extensions. Internet Safety and Digital Citizenship will be covered throughout the course. In order to take Information Technology Applications II, this course is required.

INFORMATION TECHNOLOGY APPLICATIONS II (Semester)

Level: 10, 11, 12

Prerequisite: Info Tech I

In this course, students will develop advanced skills in word processing, spreadsheet, presentation, desktop publishing, and integrated applications while using various platforms. Database applications will be covered. Students will

demonstrate skills required to earn their Microsoft Office Specialist (MOS) Certification in Word, Excel, PowerPoint, and/or Access. The majority of the course will be hands-on learning, practical in nature. Internet Safety and Digital Citizenship will be followed throughout the course.

INTRODUCTION TO BUSINESS, MARKETING AND MANAGEMENT (Semester)

Level: 9, 10

This course is designed to inform all students about today's business world. This course is an overview of the Business, Marketing, and Management Career Field. Units of study include economic systems, forms of business ownership, management, marketing, and accounting. Career opportunities will also be explored. Students will spend time calculating business math, figuring wages, and counting back money.

MARKETING (Must take with the 2nd semester Entrepreneurship class)

Level: 10, 11, 12

Prerequisite: Teacher Approval

Students will explore the basic functions of marketing; pricing, promotion, product planning, and place/distribution; the marketing mix. Students are required to work the school store, create business cards for teachers, create a portfolio on creating a business (floor plan, poster, hiring, accounting) and complete projects around the school. The curriculum provides the foundation skills and knowledge in economics, communications skills/interpersonal skills, professional career development, business management, and entrepreneurship. Students will work the school store, create business cards for teachers, create a portfolio on creating a business (floor plan, poster, hiring, accounting).

ENTREPRENEURSHIP (Must take with the 1st semester Marketing class)

Level: 10, 11, 12

Prerequisite: Teacher Approval

Entrepreneurship is a course designed for students who have a career interest designed for entrepreneurship. Emphasis is placed on the evaluation of the business skills and commitment necessary to successfully operate a venture and review the challenges and rewards of running your own business. The role of entrepreneurship in the United States economy will be explored. Instructional strategies may include the development of a business plan, operation of school based business, or actual creation of the student run business.

PERSONAL FINANCE (Semester)

Level: 10 required

The goal of personal finance is to help students become financially responsible, conscientious members of society. This course develops student understanding and skills in consumer rights and responsibilities, money management; banking, savings, use of credit, investments, insurance, and international trade. EverFi Computer Modules are used throughout the semester.

REALITY 101 (Semester)

Level:12

This course focuses on preparing seniors for realities of life after high school graduation. Key topics discussed in the course will be personal finances (including interest rates, credit cards, and insurance), automotive upkeep, college and career preparation, and domestic skills.

DRAMA / DEBATE

DRAMA 1 (Semester)

Level: 9, 10

This course is designed for beginning actors. It includes the introductory areas of acting, basic character development, and stage terminology. Students may participate in a performance of a play.

DRAMA 2 (Semester)

Level: 9,10,11,12

Prerequisite: Written approval of director/teacher based off auditions in the spring of the previous school year.

This class's primary focus is preparing for the competitive One Act Play in the fall semester. Learning targets will focus on blocking, ensemble, character development, acting pedagogy, technical theatre elements, and marketing of a play production. Class will require participants to travel to competitions in November and early December and be available for practices right after school and on some weekend evenings.

DEBATE & ADVOCACY (Semester)

Level: 10,11,12

Prerequisite: Communications

Debate and Advocacy is a semester-long class designed to develop a student's knowledge and skills related to debating and persuading others in an effective, logical, and ethical manner. We will focus on what makes a good argument, what does it mean to have credible evidence and support, how do you critically listen and respond to opposing viewpoints, how do you defend your ideas against opposing viewpoints, how can you create an effective public campaign to advocate for a public cause, how can you effectively analyze the audience you're trying to persuade. This will be a hands-on and project-based class designed for any student who wants to become a more effective persuader.

ENGINEERING / COMPUTER SCIENCE PATHWAY

Project Lead The Way is a pre-engineering program that allows you to apply math and science to real world problems. You will have an opportunity to explore the broad field of engineering to help you make career decisions. The program is presented in a project-oriented manner that encourages problem solving skills in a team centered approach similar to what you will be doing when you go to work in industry. This pre-engineering program is presented in a four-course sequence designed to help you explore technology-related careers and to prepare you for two or four year college programs. Each class uses state-of-the-art technology equipment and involves extensive project work along with lectures to learn the material.

Year 1 – Introduction to Engineering Design
Year 2 – Principles of Engineering
Year 3 – Civil and Architectural Engineering/Computer Science Principles
Year 4 – Engineering Design and Development

INTRODUCTION TO ENGINEERING DESIGN (Year)

Level: 9, 10, 11, 12

Prerequisite: Algebra I is required or can be taken at the same time. Students need to pass 1st semester to take the 2nd semester.

This course emphasizes the development of a design. Students use computer software to produce, analyze and evaluate models of projects solutions. They study the design concepts of form and function, and then use state-of-the-art technology to translate conceptual design into reproducible products. This course teaches students to:

Understand and apply the design process to solve various problems in a team setting; apply adaptive design concepts in developing sketches, features, parts and assemblies; interpret their own sketches in using computer software to design models; understand mass property calculations-such as volume, density, mass, surface area, and how they are used to evaluate a parametric model; understand cost analysis, quality control, staffing needs, packing and product marketing; explore career opportunities in design engineering and understand what skills and education these jobs require; and develop portfolios to display their designs and present them properly to peers, instructors, and professionals.

PRINCIPLES OF ENGINEERING (Year)

Level: 10, 11, 12

Prerequisite: Need to have an 86% or above in Introduction to Engineering Design AND be in Geometry or Algebra II or have teacher permission. Students need to pass 1st semester to take the 2nd semester.

This course provides an overview of engineering and engineering technology. Students develop problem-solving skills by tackling real-world engineering problems. Through theory and practical hands-on experiences, students address the emerging social and political consequences of technological change. The course of study includes: Overview and Perspective of Engineering, Design Process, Communication and Documentation, Engineering Systems, Statics, Materials and Material Testing, Thermodynamics, Engineering for Quality and Reliability, and Dynamics.

COMPUTER SCIENCE PRINCIPLES (Year)

Level: 10,11,12

Prerequisite: Need to have an 86% or above in Algebra 1 Students need to pass 1st semester to take the 2nd semester.

Computer Science Principles (CSE) is a PLTW course. Students work in teams to develop computational thinking and problem solving skills. The course covers the College Board's new CS Principles framework. The course does not aim to teach mastery of a single programming language but aims instead to develop computational thinking, to generate excitement about the field of computing, and to introduce computational tools that foster creativity. The course also aims to build students' awareness of the tremendous demand for computer specialists and for professionals in all fields who have computational skills. Each unit focuses on one or more computationally intensive career paths. The course also aims to engage students to consider issues raised by the present and future societal impact of computing. Students create apps for mobile devices, automate tasks in a variety of languages, find patterns in data, and interpret simulations. Students collaborate to create and present solutions that can improve people's lives

COMPUTER SCIENCE APPLICATIONS (Year)

Level: 11,12

Prerequisite: Computer Science Principles

This class focuses on integrating technologies across multiple platforms and networks, including the Internet. Students collaborate to produce programs that integrate mobile devices and leverage those devices for distributed collection and data processing. Students analyze, adapt, and improve each other's programs while working primarily in Java™ and other industry-standard tools. This course prepares students for the AP Computer Science-A course.

CYBERSECURITY (Year)

Level: 10,11,12

The course will be designed to expose high school students to the ever-growing and far-reaching field of cybersecurity. This may be accomplished through problem-based learning where students role-play as cybersecurity experts and train as cybersecurity experts do.

ROBOTICS (Year)

Level: 10,11,12

Students will design and build a robot to participate in area robotic competitions. Major units of study will focus on the engineering design process, building and designing a controllable base, designing and building a manipulator and programming of the mechanical system using logic based control and simple sensors.

CIVIL ENGINEERING AND ARCHITECTURE (Year)

Level: 11, 12

Prerequisite: Need to have an 86% or above in Introduction to Engineering Design AND Principles of Engineering; or 86% or above in Advanced Drafting. Juniors and seniors who do not meet this requirement may be admitted to this class based on instructor permission. Students need to pass 1st semester to take the 2nd semester.

Students work in teams, exploring hands-on projects and activities to learn the characteristics of both the civil engineering and architecture fields. The course is structured to enable students to have a variety of experiences that will provide an overview of both fields. The major focus of the course is a long-term project that involves the development of a local property site. This project focuses on commercial development such as businesses, churches, community centers, etc. . . Students apply what they learn to the design and development of this property. The course of study includes: The role of Civil Engineers and Architects, Project Planning, Site Planning, Building Design, and Project Documentation and Presentation.

ENGINEERING DESIGN AND DEVELOPMENT (Year)

Level: 12

Prerequisite: Successful completion of any two of the following, Intro to Engineering Design, Principles of Engineering, Civil Engineering/Architecture, Computer Science Principles, Computer Science Applications, Principles of Biomedical Science, Medical Interventions. Students need to pass 1st semester to take the 2nd semester.

This course is an engineering research course in which students work in teams to research, design, and construct a solution to an open-ended engineering problem. Students apply principles learned in preceding courses and are guided by the instructor and a community mentor in the project work. They must present progress reports, submit a final presentation and defend their solutions to a panel of outside reviewers at the end of the school year.

ENGLISH

ENGLISH 9 (Year)

Level: 9 required

Students will read and differentiate among the various genres of literature. Language study will include, but is not limited to, understanding sentence structure and parts of the sentence, along with recognizing and correcting errors in usage, capitalization, and punctuation. Students will compose various written works utilizing the Six Traits of Writing. A demonstration speech will be given. Novels to be read include: *To Kill a Mockingbird* and *Of Mice and Men.*

ENGLISH 10 (Year)

Level: 10 required

Prerequisite: English 9

This course will be divided into two main areas of study - literature and composition. Students will be reading a Shakespeare play, a variety of short stories and three books chosen by the instructor. While there will be several writing assignments throughout the year, a 3-5 page informative research paper will be required for first semester. As students begin to prepare for life outside of high school, English usage and conventions will be reviewed over the year.

COMMUNICATION (Semester)

Level: 10 (9th possible) (Required)

Students will learn the basics of Speech Communication. They will learn basic communication skills (voice, posture, confidence, etc.). They will present different types of speeches ranging in length. In doing so, students will also research, write and arrange their work for presentation. Students will cover extemporaneous and impromptu speaking to learn the skill of thinking on their feet as well as keeping calm and organized under high-pressure situations. Students will also learn basic business conversation and email communication skills.

ADVANCED AMERICAN LITERATURE (Year)

Level: 11

Prerequisite: MAP test scores in Reading at the 88th percentile or teacher approval.

This is an advanced study of American Literature with an emphasis on persuasive and argumentative writing. The class offers a survey of American writers from the seventeenth through the twenty-first century with an in-depth study of specific authors and works (poems, short stories, and novels) from each period. The focus is on analysis of various genres of literature as well as the development of analytical writing techniques. The class includes a review of grammar usage and mechanics. Students will present two oral reports/speeches, complete at least two written literary analysis, write a researched persuasive essay, and several other persuasive essays.

AMERICAN LITERATURE (Year)

Level: 11

Prerequisite: English 10

First semester is a study of expository composition and language with an emphasis on the argumentative research paper. Second semester is an historical survey and interpretation of various genres of American Literature focusing on the thematic, artistic, and philosophical development of American writers.

LITERATURE 11A (Year)

Level: 11

Prerequisite: Instructor recommendations. This class is NOT accepted by the Nebraska University system or by the NCAA Clearinghouse as an approved English course.

The course will be divided into three (3) main areas of study – Survey of American Literature, Composition, and the process of writing a Research Paper.

ADVANCED COLLEGE PREPARATORY LITERATURE (Semester)

Level: 12

Prerequisite: Junior English teacher recommendation or instructor permission. Must have an 80% or above in American Literature

This course is a survey course of the literary masters of the world. A variety of genres will be studied and analyzed. The class will focus on the historical and social elements, themes, philosophies genres of the works studied. The writing will include limited and extended literary analysis. As the title suggests, this is an intensive study and analysis of world literary masters and their works. It is for students who are preparing for a four year college experience.

ADVANCED COLLEGE PREPARATORY WRITING (Semester)

Level: 12

Prerequisite: Junior English teacher recommendation or instructor permission. Must have 80% or above average in American Literature

This course is a survey course of the forms of college writing including personal writing, creative writing, report writing, analytical writing and persuasive writing. Students will study structure, style and research techniques. As the title suggests, this is an intensive writing course designed for those students who need to prepare for college.

(AP) ENGLISH (Year)

Level: 12

Prerequisite: Junior English teachers will make recommendations based upon the following: Student must take American Literature or Advanced American Literature as a junior and receive an 86% or above.

This class is an in-depth study of literature and composition. It will include the close reading of several novels and plays as well as shorter works. Compositions will be assigned in conjunction with the reading. Students will have the opportunity to take the Advanced Placement (college credit) Test in Literature and Composition. The student will have the option of taking the AP exam to determine if college credit can be awarded for this class. The student will be asked to decide in January if they wish to take the test or not. The cost of the exam is approximately $80.

CCC English Composition (ENGL 1010) (Semester)

Level:12

Prerequisite: Reading and English ACT score 18+, minimum grade, registration and payment through CCC

This class offers instructional practice in the techniques of effective writing. The process of planning, writing, revising, and editing essays for particular audiences and purposes and research-related skills are also emphasized.

CCC Writing and Research (ENGL 1020) (Semester)

Level:12

Prerequisite: CCC English Composition (ENG 1010), registration and payment through CCC

This class focuses on extended source-based writing and/or projects, including a required research paper. Emphasizes organizational strategies for research, the integration of multiple sources, and the ethical use of information sources.

COMMUNICATION ARTS 12 (Year)

Level: 12

Prerequisite: Recommendation by teacher/counselor using previous performance and scores. This class is NOT accepted by the University system or by the NCAA Clearinghouse as an approved English course.

Communication Arts 12 is for those seniors who need further instruction in basic communication skills. Focus of instruction is on reading, writing, and speaking skills that will help the student make a transition to technical school and work.

SENIOR ENGLISH (Year)

Level: 12

Prerequisite: Successful completion of American Literature or Literature. This class is NOT accepted by the University system or by the NCAA Clearinghouse as an approved English course.

This course is designed for the non-college bound student. This course concentrates on basic reading, writing, and grammar skills. The reading assignments include high-interest novels, newspapers, plays, poems, and short-stories. The writing includes personal writing, poetry, reports, expository compositions, the research paper, and a short story. The grammar unit is a study of basic usage.

FAMILY & CONSUMER SCIENCE

FUNDAMENTALS OF FOOD & NUTRITION (Semester)

Level 9, 10, 11

In this course, students will start from scratch in learning the basics of the kitchen, including meal planning and nutrition. Cooking at least once a week, students will learn the fundamentals of the kitchen, while making informed decisions about what they eat. Classroom, laboratory, and educational leadership activities are supplemented through Nebraska FCCLA career student organization.

HUMAN GROWTH AND DEVELOPMENT (Semester)

Level: 9, 10, 11, 12

This course provides students with an understanding of human development in the areas of physical, social, emotional and intellectual development from infancy through the entire lifespan. Students will learn how to develop positive interactions with others and how development can be guided at each age.

INTRODUCTION TO DESIGN PRINCIPLES

Level: 10,11,12

Students explore the definition and application of elements and principles of design in both living spaces and clothing and textiles. In this course, students will also evaluate the use of elements and principles and suggest improvements. Students are also exposed to career opportunities and the skills necessary for these career fields.

HOME DESIGN & INTERIORS

Level: 10,11,12

Prerequisite: Student will have passed Introduction to Design Principles with C or higher. (Will be offered in 2020-2021)

This course provides instruction in the physical, physiological and social influences of housing styles and options; exterior and interior design; selection, use and care of home furnishings and equipment; use of available resources for achieving improved living space to meet individual and family needs; and exposure to careers related to housing and interior design.

NUTRITION SCIENCE (Semester)

Level: 11,12

This course introduces students to the science of human nutrition and the relationship between nutrition and health throughout the life cycle. Classroom, laboratory, and educational leadership activities are supplemented through Nebraska FCCLA career student organization.

CULINARY SKILLS 1 (Semester)

Level: 10, 11, 12

Prerequisite: Students will have passed Fundamentals of Food and Nutrition with a C or higher.

This course is designed to provide students with curriculum which is focused on the food service industry and provides training in workplace and culinary skills, food safety and sanitation, interpersonal and communication skills, as well as an exposure to the areas of restaurant management and career exploration. Classroom, laboratory, and educational leadership activities are supplemented through Nebraska FCCLA career student organization.

CULINARY SKILLS 2 (Semester)

Level: 11, 12

Prerequisite: Students will have passed Culinary Skills 1 with a C or higher.

This course is designed to provide students with advanced curriculum which is focused on the food service industry and provides training in workplace and culinary skills, interpersonal and communication skills, as well as an exposure to the areas of restaurant management and career exploration. ServSafe Food Handler certification may be available at this level through the National Restaurant Association Educational Foundation. Classroom, laboratory, and educational leadership activities are supplemented through Nebraska FCCLA career student organization.

PRO-START 1 (Year)

Level:10,11,12

Prerequisite: Fundamentals of Food & Nutrition with a C or higher

This course uses industry driven curriculum that will prepare students for careers in the restaurant and food service management industry. This course will focus on the following topics: career paths, safety and sanitation, industry standards, food methods and techniques, food service management, and customer service.

HEALTH SCIENCE

INTRODUCTION TO HEALTH SCIENCE (Semester)

Level: 9, 10, 11

Are you interested in a career in Health Science? This class will introduce students to the vast array of careers within the Health Science Field. Students will be introduced to medical terminology and math skills used in the Health Science Field. Possible field trips and guest speakers may be incorporated into the class. Students will be introduced to the Project Lead the Way Curriculum – Biomedical Sciences.

Project Lead the Way (PLTW) Biomedical Sciences Program prepares students to take advantage of the tremendous career opportunities available in health science. The hands-on, project-based curriculum engages students and allows them to explore the wide variety of healthcare and science career options. These courses will equip students with the knowledge and skills necessary to succeed in any postsecondary biomedical sciences program. The PLTW Biomedical Sciences Program is offered in a three-course sequence, each year building on the previous year. Each class uses technology equipment and involves individual and project work to learn the material.

Principles of Biomedical Science (PBS)

Level: 10,11,12

Prerequisites: Overall GPA of a "C" or better. Successful completion of the previous semester will determine advancement to the next class.

In the introductory course of the PLTW Biomedical Science program, students explore concepts of biology and medicine to determine the factors that led to the death of a fictional person. While investigating the case, students examine autopsy reports, investigate medical history, and explore medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, basic biology, medicine, and research processes while allowing them to design their own experiments to solve problems.

Human Body Systems (HBS) - Anatomy & Physiology is the replacement course for this class.
Level: 11,12
Prerequisite: Principles of Biomedical Science- C or higher

Students will engage in the study of the processes, structures, and interactions of the human body systems. Students will design experiments, investigate the structures and functions of body systems. Students will work through real world cases and often play the role of biomedical professionals to solve medical mysteries.

Medical Interventions (MI)
Level: 11,12
Prerequisite: Principles of Biomedical Science and either Human Body Systems or Anatomy & Physiology- C or higher. Student can take Anatomy & Physiology at the same time as Medical Interventions. Teacher permission required.

Students follow the life of a fictitious family as they investigate how to prevent, diagnose, and treat disease. Students explore how to detect and fight infection; screen and evaluate the code in human DNA; evaluate cancer treatment options; and prevail when the organs of the body begin to fail. Through real-world cases, students are exposed to a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics.

INTRODUCTION TO SPORTS MEDICINE (Year)
Level: 10, 11, 12

This course will provide students a basic background of Sports Medicine and Athletic Training. Topics which may be covered include Roles & Responsibilities in Athletic Training, Injury Assessment and Management, Anatomy and Physiology in respect to preparing students to work with athletes and athletic needs relating to training, injury protection and injury rehabilitation, and CPR/First Aid.

INDUSTRIAL TECHNOLOGY

CAREER PATHWAYS INSTITUTE (Year)
Level: 11,12
Prerequisite: Students must complete an application through the Grand Island Public School system and be accepted into the program. Students must provide their own transportation and tuition, fees, and books through CCC if applicable.

This program allows a NW student to take classes in Automotive, Manufacturing, Carpentry, Engineering, Welding or Information Technology through this cooperative program with GISH. It is possible for the student to earn college credit through Central Community College. Once the applicant is accepted into the program, a schedule will be established. Students will spend 3 periods per day at CPI and 5 periods at Northwest High School.

CARPENTRY (3 Class Periods per day, Year)
Level: 11, 12
Prerequisite: Completion of Construction Systems AND permission of the teacher ONLY. Students will also become a member of the SkillsUSA Program $25. You will be expected to provide a clean driving record, driver's license with parental written permission to drive or ride to off campus work areas. Students must be able to work in a team environment and wear proper attire for the elements. Students must provide personal basic hand tools: Safety glasses tape measure, hammer, tool belt, etc.

This course is designed to help students experience and develop skills in the many different areas common to the construction trades. Residential construction skills will be learned in a hands-on setting as the class builds a home from the ground up. The class members will work on a Year home building project. Typical work will include rough framing,

roofing, installing doors and windows, and exterior and interior finishing methods. Student will also work towards getting a 10hr OSHA card

Curriculum will come from SkillsUSA which has been created with cooperation from industry. This will also prepare the students for the SkillsUSA State Competition.

CONSTRUCTION SYSTEMS (Semester)

Level: 10, 11, 12

Prerequisite: Students must purchase Z87 approved clear safety glasses

In this course, students will review measuring, safety, tool applications, careers, building material identification, framing methods, roofing, concrete and specialized tools, steel studs and alternate methods. Typically students will build a garden shed. Participation grades are based on safety, attendance, attitude, willingness to try new things, and sometimes a timesheet.

CONSUMER AUTO (Semester)

Level: 10, 11, 12

Prerequisite: Students must purchase Z87 approved clear safety glasses

Students will learn relevant information necessary for understanding and efficiently operating today's automobile. While this course is not designed to train auto mechanics, it does provide comprehensive instruction and lab activities covering a broad base of automotive care. The underlying theme of this course is to help the average person to become a better consumer of automobiles. Students will review measuring, safety, tool applications, and explore relevant careers. Students will be graded on participation, cooperation, safety, a clean environment, bringing vehicles in and quizzes and tests over class material.

DRAFTING AND DESIGN (Semester)

Level: 10, 11, 12

This class focuses on using design software to create graphical models of structures and components. Students will learn to use AutoDesk and AutoDesk Revit to sketch drawings that show the detail necessary to be used as building and manufacturing plans.

EXPLORING TECHNOLOGY AND DESIGN (Semester)

Level: 9, 10

Prerequisite: Students must purchase Z87 approved clear safety glasses

This year-long class focuses on four major areas of technology, construction, manufacturing, design, and engineering. Students will learn how to safely work and operate tools in various technology labs, as well as effectively communicate project specifications and design principles. Students in this course will work towards receiving and OSHA 10-hour Safety Certification. The $25 fee for the certification will be covered by the school. If the student must retake the certification course, the expense will become the responsibility of the student.

HOME MAINTENANCE (Semester)

Level: 10, 11, 12

Prerequisite: Students must purchase Z87 approved clear safety glasses

Students will learn about basic residential electricity, drywall techniques, and plumbing. Students will complete a sample electric wall including a switched receptacle, a light fixture switched by multiple switches and follow code while doing so. Students will complete a sample plumbing scenario. Students will learn how to cut, fasten and apply drywall compound to the wall. Students will use PVC, copper,black pipe, and pex to demonstrate plumbing joints. Lastly, students will complete a small class project using basic hand and power tools. Students will also demonstrate measuring, practice safety, tool use applications, and explore careers. Students will be graded on participation, cooperation, safety, a clean environment, and quizzes and tests over class material.

MANUFACTURING (Semester)

Level: 10, 11, 12

Prerequisite: Students must purchase Z87 approved clear safety glasses

Students will learn the basics of stick arc welding, mig welding and oxyacetylene welding. Students will complete the basic types of welds, straight bead, butt, t and lap welds. Students will also learn to use the OA torching systems as well as the plasma arc cutting systems. Students will also complete a small class-welding project. Throughout the class, students will review measuring, safety, tool applications, and explore relevant careers. Students will be graded on participation, cooperation, a clean environment, and quizzes and tests over class material. Students will also need their OSHA card.

ADVANCED MANUFACTURING (Year)

Level: 11, 12

Prerequisite: Manufacturing 1 – a grade of 86% or better. Students will also need their OSHA card completed and Z87 approved clear safety glasses

Students will work to review the basic welds and then progress to vertical welds. Students will also work with machine lathes, metal forming, and project design. Students will complete their own project second semester of the class. Throughout the class, students will review measuring, safety, tool applications, and explore relevant careers. Students will be graded on participation, cooperation, a clean environment, the student's finished project and quizzes and tests over class material.

WOODS 1 (Semester)

Level: 10, 11, 12

Prerequisite: Z87 approved clear safety glasses and a quality tape measure are required. OSHA 10hr Card if you were a Freshman 2015-16 LAB FEE $30

In this class, students will review measuring, safety, tool applications, and careers. Students will study wood species identification, wood characteristics, wood joining techniques and types and applications. Wood staining, finishing, and preservation will be studied. Introduction to European and traditional hardware and applications along with synthetic materials and application "countertops" will be studied. Students will build a small cabinet with a door and countertop.

WOODS 2 (Semester or Year)

Level: 11 or 12

Prerequisite: Woods 1, Z87 approved clear safety glasses and a quality tape measure are required.

In this class, students will review safety, concentrate on planning, estimating, and organization. Students will build "Cabinetry" projects for the school, themselves, or sponsors. Students will work independently and/or in groups. Students will be challenged to raise their level of detail. Participation grades are based on a timesheet that each student is required to keep track of and be peer checked.

JOURNALISM

DIGITAL BROADCAST JOURNALISM (Year, but can be taken as a semester course [not preferable])

Level: 10, 11, 12 and Teacher Approval

Prerequisite: Students should have an interest in broadcast journalism as a career and a B GPA.

Must have signature form filled out for permission to take class

This is a news production class in which Viking Media staffers will record and edit video to report school news and events in a monthly format. Students will learn interviewing skills, video and audio recording skills, video and audio editing skills, public speaking skills, and journalistic storytelling skills. Students will create video news "packages" to cover school events and subjects of interest to their peers. Prospective staffers should be self-motivated, self-driven, and well-organized. Course may be repeated.

DIGITAL MEDIA 1 (Semester)

Level: 10, 11, 12

Students will learn introductory skills using industry standard software (Adobe Photoshop, Premiere Pro, and Animate) to develop media for entertainment and/or educational use. Students will create will edit digital photos, shoot, edit and create videos, create animations, and work with sound. Basic rules of composition in photography are also covered. Hands on use of cameras, microphones, lighting and green screen. Students will practice the production process from live shoot to final edit.

DIGITAL MEDIA 2 (Semester or Year)

Level: 11, 12

Prerequisite: Digital Media 1 and Teacher Approval

Students will independently learn programs of the Adobe Creative Cloud Suite. Programs include Photoshop, Premiere Pro, Illustrator, Animate, Dreamweaver, etc. Students will focus on a program that interests them and find projects to work on to master skills in that program. Over the semester, students may be asked to help with other projects for teachers or the school.

NEWSPAPER PRODUCTION (Year)

Level: 10, 11, 12

Prerequisite: Permission of instructor and a grade of 90% or higher in previous year's English class.

All staff members of newspaper production will learn the basic elements of newspaper design, journalistic writing skills, and appropriate layout techniques through monthly production of the official student newspaper, the Viking Saga. Various writing styles will be used in completing body copy, headlines, and captions, but prior knowledge of these skills is not required. Students must be free to attend school activities to take pictures and obtain information for stories, and time outside of class is often used to complete work required. Staff members of the Viking Saga will also be expected to design pages, sell advertisements, and distribute the publications. Students will use MacBook laptops and the InDesign program on a daily basis to produce the newspaper. Meeting deadlines are of the utmost importance. Course may be repeated.

PHOTOGRAPHY (Semester)

Level: 10, 11, 12

Students will learn the basics of photography, starting with the history of photography and studying many of the masters of photography. Students will learn basic photography composition: what makes a “good” photo. Students will also learn the basics of photo editing; how to edit and manipulate photos, along with the ethical considerations that come with digital photography. Students will learn how to take effective portrait photography. Students will learn how to utilize the basic settings of a Digital SLR (Single-Lens Reflex) camera, what the Exposure Triangle is, and how the different settings on the camera can affect how a photo looks.

YEARBOOK PRODUCTION (Year)

Level: 10, 11, 12

Prerequisite: Permission of instructor and a grade of 90% or higher.

This class involves the publication of the official school annual, the Viking. All staff members will learn the basic elements of yearbook design, journalistic writing skills, and appropriate layout techniques. Various writing styles will be used in completing body copy, headlines, and captions, but prior knowledge of these skills is not required. Students must be free to attend school activities to take pictures and obtain information for stories. Staff members of the Viking yearbook will also be expected to design pages, sell advertisements, and distribute the publication. Students will use MacBook laptops and the Adobe InDesign program on a daily basis to produce the yearbook, along with Photoshop. Depending on spread assignments and accomplishment of required tasks, classwork may extend past the end of the school year into the beginning of June. Course may be repeated.

MATH

Based on how the student did in their 8th grade math class along with the teacher's recommendation, students will be placed in the appropriate math classes. A math test may also be given.

If you are interested in attending one of the state's universities, students and parents need to be aware of the math requirements. UNL requires students to take Algebra I (or B), Geometry, Algebra II, and Trigonometry/Pre-Calculus or another college class accepted by the University. UNO and UNK both require Algebra I (or B), Geometry, and Algebra II plus other required standards. The math teachers will be making recommendations for the appropriate math class for your son/daughter. Parents are encouraged to contact one of the math instructors for more specific information about the math program.

Mathematics Pathway

Freshman	Sophomore	Junior	Senior
Algebra A	Algebra B	Geometry	Math Apps Algebra 2
Algebra 1	Geometry	Algebra 2	Trig/Pre-Calc Discrete Math Math Apps (2yr college)
Geometry (Has taken Algebra 1)	Algebra 2	Trig/Pre-Calc	Calculus (Math ACT 25) CCC College Algebra (Math ACT 22) CCC Stats (Math ACT 22) Discrete Math Math Apps (2yr college)
Algebra 2 (Has taken Geometry)	Trig/Pre-Calc	Calculus (Math ACT 25)	CCC College Algebra (Math ACT 22) CCC Stats (Math ACT 22) Calc 2 at CCC

EXTENDED ALGEBRA (2 years)

Level: 9 and 10

ALGEBRA A (year 1 - freshmen)

This course is designed for the students that are not quite ready for the regular pace and rigor of an Algebra I course at the freshman level. These students will learn the same material from the Algebra I book just at a more appropriate pace and level. They will cover solving equations/inequalities, graphing, formulas and functions, exponents and polynomial simplification. Students who pass this course are expected to transition into Algebra B the following year..

ALGEBRA B (year 2 - sophomore)

This course is an extension of Algebra A. Students will continue to develop material in the Algebra 1 book such as solving quadratics, linear systems and radicals. Students will also be introduced to Geometry. The incorporation of geometry terms, theorems, properties of triangles, and transformations. After these two years students will be prepared for Geometry.

ALGEBRA I (Year)

This class will consist of arithmetic operations extended to using variables, sets, and real numbers. It will also cover polynomial simplification, solving equations and inequalities, graphs, quadratic equations, formulas and functions, exponents, linear systems, and number theory. The student will use problem solving strategies.

MATH APPLICATIONS (Year)

Prerequisite: Intuitive Geometry (This class is NOT accepted by the University system.)

This class is to help students deal with the everyday math situations they will face. This course will provide information for students to make financial decisions.

GEOMETRY (Year)

Prerequisite: Algebra I with a grade of 78% or permission from the Algebra I teacher

This class is a study of plane geometric figures such as triangles, circles, special polygons, parallel lines and properties of such figures. Study will include proofs (logical deductive reasoning). Students will also learn topics in solid, coordinate, and transformational geometry.

ALGEBRA II (Year)

Prerequisite: Algebra I and Geometry

This course is designed to build on algebraic and geometric concepts. It develops advanced algebra skills such as systems of equations, advanced polynomials, imaginary and complex numbers and quadratics.

DISCRETE MATH (Semester or Year)

Prerequisite: Algebra II

This class is a branch of mathematics that focuses on countable sets. In Discrete Math, you will learn probability and combinatorics, study different theories including number theory, set theory, graph theory, platonic solids, and recursion. Students will also learn about different voting methods and election theory. Students will learn how Discrete Math is used in computer science.

TRIGONOMETRY/PRE-CALCULUS (Year)

Prerequisite: Algebra II with a grade of at least 78% or permission from the Trigonometry teacher.

This class starts as a continuation of the work done in Algebra II. Graphing and recognition of types of functions are emphasized. The course builds into the following concepts: trigonometric functions, triangle trigonometry, circle trigonometry, law of sines, law of cosines, logarithms, conic sections, sequences, series and probability.

(AP) CALCULUS (Year)

Prerequisite: Trigonometry/Pre-Calculus with a grade of at least 78% or permission from the AP teacher.

The objective of this class is to educate the student in the nature of mathematics as a logical system to present a unified treatment of the basic ideas of algebra, trigonometry, analytic geometry and calculus. Contents include: functions, limits, and continuity; topics from plane analytic geometry; differentiation of polynomial functions, trigonometric functions, and applications of the definite integral.

The student will have the option of taking the AP exam to determine if college credit can be awarded for this class. The student will be asked to decide in January if they wish to take the test or not. The cost of the exam is approximately $80.

The student will also have the option 1st semester of taking AP Calculus with dual credit through GI Central Community College (CCC) for the cost of 5 credit hours at CCC. Students do NOT have to take the AP exam or dual credit through CCC, but will NOT receive college credits. In order to take the class for college credit, a math ACT score of 25 is required. In order for the class to be transferable, the student must earn an unweighted A, B, or C in the class.

CCC APPLIED MATH STATISTICS 2020 (Semester)

Level: 11 or 12

Prerequisite: Trigonometry/PreCalculus or CCC Intermediate Algebra. Testing must be completed prior to taking the class. An ACT math score of 22 is required to get college credit for the class.

This course enables the student to develop the knowledge to describe statistical data and the techniques used to make generalizations based on statistical data, and demonstrate the role of statistics in business, the natural and social sciences, nursing, education and a variety of other fields.

CCC COLLEGE ALGEBRA (Semester)

Level: 11 or 12

Prerequisite: Trigonometry/PreCalculus or CCC Intermediate Algebra. Testing must be completed prior to taking the class. An ACT math score of 22 is required to get college credit for the class.

This course is the study of relations, functions and their graphs, equations and inequalities, polynomial and rational functions, exponential and logarithmic functions, systems of equations and inequalities.

MISCELLANEOUS

ACT PREP COURSE (Semester)

Level: 10, 11, 12

The purpose of this course is to assist committed students in preparing for and developing the skills necessary to improve ACT scores. Students will explore the format of the ACT test and build an understanding of the types of questions found on the test using strategies presented by John Baylor. This course will emphasize test-taking techniques in addition to providing skill-building in English, mathematics, reading and science. Additional coverage will be given to study skills, how to pay for college at the lowest cost, and deciding between 2-year and 4-year colleges, and other topics related to preparing for college. This is a definite must-do course for those students desiring to attend the best college at the lowest possible cost.

KITCHEN AIDE (Year)

Level: 10, 11, 12

Prerequisite: Permission from Food Service Manager.

Students work in the cafeteria under the direction of the head cook. They receive a free lunch plus pay for their hours of work. They earn no academic credit.

MUSIC

BAND (Year)

Level: 9, 10, 11, 12

Prerequisite: Previous instrumental experience preferred. Percussionists see the "Percussion Ensemble" description listed below. You will not be registering for Band.

"Band" as a class, consists of various types of ensembles and performing opportunities. During the first quarter, the group meets as a marching band, and performs at home football games and various parades and contests. The band functions as a concert band for the rest of the year (second through fourth quarters). As a concert band, the band presents several concerts and utilizes guest clinicians and other means to improve the musicianship of the group. Throughout the year, the band plays as a pep band for volleyball and basketball games. The Wind Ensemble is an auditioned, select concert band that meets separately. The jazz band is auditioned after the completion of marching season, and meets in the mornings. Members also have the opportunity to work up solo literature; all state and other honor bands will also be available for students to audition. This course may be repeated.

INSTRUMENTAL MUSIC LESSONS (Semester)

Level: 9-12

Prerequisite: Desire to learn an instrument, no experience necessary

This course will offer individualized lessons on band or orchestra instruments. This course is geared toward students who are interested in joining band/orchestra but have never played, or students who wish to add another instrument to their skill set. This is a "performance" style course and may be repeated.

BEGINNING GUITAR (Semester)

Level: 10-12

Prerequisite: Students should provide their own acoustic guitar. School has a few for use on a first come basis. Guitars would also be available to rent.

This class is for beginners with little to no experience playing guitar. Students will learn basic chords, note reading, and concepts associated with playing the guitar.

FRESHMEN MUSIC (Semester or Year)

Level: 9

Students who wish to be involved in band and choir are encouraged to take "Freshmen Music". Students enrolled in this class will alternate days between band and choir. For a description of each ensemble, please see their respective course descriptions. Auditions will not be held for either ensemble.

FRESHMEN CHOIR (Semester or Year)

Level: 9

This class is offered to those students who desire to participate in vocal music only every day. This course provides the opportunity to develop your singing voice through voice training and learning to read music.
Second semester enrollment in this class is suggested for students who wish to participate in the second semester musical. Attendance is required at all concerts/retreat events.

POP MUSIC HISTORY (Semester)

Level: 9-12

This course will study the history and development of jazz, rock, and blues music as well as the cultural surroundings causing the music to be written. A great deal of listening would be included in this course, as well as study of lyrics. This is an "academic" style course not "performance".

MUSICAL THEATRE (Semester)

Level: 10, 11, 12

This class is an intense study of musical theatre, its music, its history and dramatic activities. Students will be coached with musical theatre literature and must be able to perform those songs for projects. Study will also include appropriate musical theatre singing and stage direction. This class may be repeated.

MUSIC HISTORY (Semester)

Level: 9-12

An introductory course to western music history, from the medieval period through the present, with a focus on Classical idioms. This is an "academic" style course not "performance". Materials for the class would include world history, a substantial amount of recordings of music, and some light study of the music itself. An emphasis for this course is on the cultural events surrounding and causing the creation of various forms of music.

MUSIC THEORY I & II (Semester or Year)

Level: 11, 12

Music Theory I and II is a college preparation course designed to aid students desiring to continue the study of music after high school but is open to anyone interested in learning more about music. The class will cover music theory, sight singing and ear training, analysis, arranging, transposition, and composition. This course will also include basic piano/keyboard skills, designed to both assist learning music theory and to serve as a beginner piano class.

MUSIC THEORY III & IV (Semester or Year)

Level: 12

Prerequisite: Music Theory I & II

Music Theory III and IV is primarily directed toward the prospective college music major. Music theory topics will be studied in depth, including secondary dominant chords, nonharmonic tones, counterpoint, and the development of composition through music history. Analysis of music will also be discussed, including Roman numeral harmonic analysis and phraseology.

ORCHESTRA (Semester or Year)

Level: 9, 10, 11, 12

Prerequisite: Previous string experience preferred.

This "performance-based" course will teach the foundations of playing a string instrument (violin, viola, cello, or bass) in the context of the string orchestra. Performances will occur at concerts and other potential venues. This class may be repeated.

PERCUSSION ENSEMBLE (Year)

Level: 9, 10, 11, 12 Students who take this course WILL NOT be registering for Band.

Percussion Ensemble is an instrumental music ensemble for percussion students. The course will involve percussion techniques and rehearsing music for marching band, concert band, and percussion ensemble. During marching band season, this class will be to prepare battery and front ensemble percussion for the marching band's season. After marching season is over, the class will switch focus toward traditional concert percussion instruments. The repertoire will consist of percussion ensemble music (that is, music written for percussion only) and standard concert band music. Selected percussionists will join the concert band for concerts. Proper playing technique will be emphasized throughout the course. This class may be repeated.

ROCK BAND (Semester)

Level: 10-12, (9 as space permits)

Prerequisite: No experience required

This course involves students in learning typical rock/pop instruments such as guitars, keyboards, drums, vocals, etc in a more "relaxed" environment. Students' first projects are learning to "cover" existing songs. The curriculum then moves into students writing their own material as songwriters. Although this is a "performance-based" course, emphasis is not placed on public performance, but instead focuses on in-class performances. This course may be repeated as space permits.

VOCAL MUSIC (Year)

Level: 10, 11, 12

Prerequisite: The three choirs are selected by audition. After auditions, students will be assigned to the appropriate choir. Attendance is required at all concerts/retreat events. This class may be repeated.

The three choirs are: BEL CANTO, A CAPPELLA ,BELLA VOCE.

GOLDTONES (Year)

Prerequisite: Audition

This is the Elite Acapella Group. This group will sing a variety of music from Choral Motets to Acapella Pop. This group does not dance-but rather will be the top singing group in the department. The music will be very difficult and the expectations will be high for this ensemble.

WIND ENSEMBLE (Spring semester)

Level: 9-12

Prerequisite: Audition

This ensemble is an auditioned concert band. Members are selected by audition. Students will probably choose either this class or band/percussion ensemble, although they could do both if they desired. This would be a "performance" style course and may be repeated.

ONLINE COURSES

ONLINE COURSES

Level 10, 11, 12
Prerequisite: Registration, cost, placement test

CCC, Peru and UNL offer various online courses for students wanting to get a head start on their college classes. Students who qualify for the Free & Reduced Lunch program are eligible for a tuition scholarship. If you are interested in exploring this option please see your counselor.

PHYSICAL EDUCATION & HEALTH

FITNESS EDUCATION (Semester or Year)
Level: 9, 10, 11, 12

This course is designed to develop cardiovascular fitness, muscle strength, and flexibility. Multiple cardiovascular exercises are stressed daily with the emphasis on improving cardiovascular fitness. A minimum of four cardiovascular assessments will be given per semester. Muscular strength and flexibility assessments will occur throughout the semester to measure student improvement. Students will also have the chance to participate in team sports and activities.

HEALTH (Semester)
Level: 9 – This class is required of ALL 9th graders.

This course is designed to provide information needed to make important decisions about health, wellness, and individual lifestyle. Topics related to health such as personal health and wellness, social and emotional health, dating violence, first aid, nutrition and physical activity, alcohol/tobacco/other drugs, and STI education will be discussed. This course will assist students in understanding that health is a lifetime commitment by analyzing individual factors and health decisions that promote health and prevent disease. Students are also encouraged to assume individual responsibility for becoming competent health consumers. A variety of instructional strategies, including technology, is used to further develop health literacy.

SPORTS PERFORMANCE (Semester or Year)
Level: 9, 10, 11, 12
***Prerequisite**: Student/Athlete must be enrolled in Summer Lifting and Conditioning Program and complete **all** summer testing. Students must demonstrate leadership qualities, a strong work ethic and proper lifting technique. Student/Athlete must also have **Coach McNeil's approval.** Required: Athletic shoes, shorts, T-shirt: all must be school appropriate. Students are responsible to bring a lock. Lockers will be assigned to all students.*

This is an advanced athletic performance class for students interested in building a solid athletic foundation. Class activity emphasizes improving athletic performance through functional strength, explosive power, linear and lateral speed techniques, sprint progression, agility, plyometrics, balance, flexibility, and proper functional energy system conditioning.

The program consists of functionally sound movement training, strength training and conditioning with a strong focus on proper technique. The program becomes progressively more challenging once basic techniques have been mastered.

Students will train functional movements and its uses in athletic preparation and performance. In addition, students will learn strategies to individually prepare athletes to perform his or her sport.

STRENGTH TRAINING (Semester or Year)
Level: 9, 10, 11, 12
Required: Athletic shoes, shorts, T-shirt; all must be school appropriate. Students are responsible to bring a lock. Lockers will be assigned to all students.

The purpose of this class is to improve a student's level of physical fitness with emphasis in the following areas: muscular strength, muscular endurance and power. Students will gain knowledge on proper technique when performing lifts, identifying the major muscle groups used when performing lifts, maintaining a daily record of their progress, and the acceptance of individual responsibility for the student's own fitness and strength levels.

Classes will be in the Auxiliary weight room 3-4 days per week lifting. Days outside of the weight room will focus on; cardiovascular endurance, speed and agility, flexibility and core strength training, and non-traditional strength training.

Students will be tested on back squat, hang clean, bench press, incline bench press, standing long jump, vertical jump, pro agility, and flexibility.

RESOURCE

9th ACADEMIC FOUNDATIONS (Semester or Year)

Level: 9

Prerequisite: Students in the program are those in 9th grade who are referred by teachers, counselors, or parents because of academic difficulties.

The student is tested by the Central Nebraska Support Services Program. If testing and a staffing indicate that the student is qualified for services, the student may enter the program with parent permission.

This is a class set up specifically for 9th grade resource room students. The students will have structured time to work on their own or have individual or small group support from a resource teacher to assist them in regular curriculum courses. Students will be required to keep a daily work chart.

ACADEMIC FOUNDATIONS (Semester or Year)

Level: 10, 11, 12

Prerequisite: Students in the program are those in grades 10-12 who are referred by teachers, counselors, or parents because of academic difficulties.

The student is tested by the Central Nebraska Support Services Program. If testing and a staffing indicate that the student is qualified for services, the student may enter the program with parent permission.

A resource study hall is available to special education students who are verified to receive services. This class is used to give students extra time to complete regular classroom assignments with the assistance of the resource teacher as needed. Students will be required to keep a daily work chart for study skills.

READING ESSENTIALS (Year)

Level: 9, 10, 11, 12

Prerequisite: Scores below targeted goal and recommendation of a teacher and/ or IEP team.

This course provides reading intervention for students with basic reading skills who continue to need instruction in advanced decoding skills, including fluency, accurate reading of multisyllabic words and expository text. It is also focused on vocabulary, language development, and reading strategies.

SCIENCE

INTEGRATED PHYSICAL SCIENCE (Year)

Level: 9 required

This is a core science course in which students gain a conceptual understanding of physics, chemistry, earth science, and astronomy. Students accomplish this through Cooperative, Problem-Based Learning.

BIOLOGY (Year)

Level: 10 required

This is an introductory study to the processes that support life on planet Earth. The course will cover the science process, the basics of cell structure and an introduction to genetics and the DNA code of life during the first semester. The second semester will deal with the interconnectedness of life on the planet from the simplest bacteria to the most complex mammals with an emphasis on how all organisms interact with their environment from an ecological perspective. This course is a required class for sophomores and a prerequisite for Anatomy and Physiology, which can be taken as a junior or a senior.

CHEMISTRY (Year)

Level: 11

Prerequisite: Grade of 78% or better in Algebra I.

This is a college preparation course, technical in nature, as students are strongly urged to make certain they meet the mathematics prerequisite. This course is for students interested in any health related career, engineering, as well as meeting the general requirements for colleges and universities. First semester course content includes the organization of matter in topics such as atomic structure, periodic law, chemical bonding, and chemical formulas. The second semester includes chemical reactions, stoichiometry, gas laws, acids/bases, and qualitative analysis.

CHEMISTRY IN THE COMMUNITY (Year)

Prerequisite: Successful completion of freshman and sophomore courses. This course is designed for a student planning on attending a two-year college and does NOT count as a science class at the University of Nebraska system.

This class covers traditional chemistry topics within the context of societal issues and real-world scenarios. Centered on decision-making activities where students are responsible for generating data in an investigation, analyzing that data and then applying their chemistry knowledge to solve the presented problem. Students will learn more organic and biochemistry, more environmental and industrial chemistry, and more on the particulate nature of matter all within the relevance of solving problems that arise in everyday life.

PRINCIPLES OF TECHNOLOGY (Year)

Level: 11, 12

Principles of Technology is a full-year course designed to introduce students to the world of technology and engineering, as a step in becoming technologically literate citizens. Through this course's practical real-world connections, students have an opportunity to see how science, mathematics, and engineering are part of their everyday world, and why it is important for every citizen to be technologically and scientifically literate.

ADVANCED CHEMISTRY (Year)

Level: 12

Prerequisite: 80% or better in Chemistry.

This course is designed for those students who are entering careers involving the medical field and/or engineering. Emphasis will be placed on mastery of basic and advanced chemistry topics to enhance a successful experience in college. The course will include lecture/discussion sessions given in powerpoint presentations as well as laboratory experiences to develop an understanding of concepts and laboratory techniques. Students completing this course will feel prepared to take any introductory inorganic or organic college course. The first semester will present the enrichment of topics covered in the first year chemistry program as well as additional topics to develop the student's background in general chemistry. The second semester will cover each of the important functional groups in organic chemistry and their reactions.

ANATOMY & PHYSIOLOGY (Year)

Level: 11, 12

Prerequisite: Grade of 86% or above in both semesters of Biology.

This class is an in-depth study of the human body and the systems of which it is composed, including cell and tissue histology. Each system will be studied in respect to its ability to maintain homeostasis in the body. This course is an excellent follow-up to the Medical Terminology class.

PHYSICS (Year)

Level: 11, 12

Prerequisite: An average of 87% or higher in Algebra II is required for this class. A student can be taking Trig/Pre-Calc at the same time as this course. Students can take for CCC credit with a Math ACT of 23 or higher.

This course includes topics in both classical and modern physics. Knowledge of algebra and basic trigonometry is required for the course; the ideas of calculus may be introduced in the theoretical development of some physical concepts, such as acceleration and work. The major goal of the course is understanding principles and problem solving.

Topics to be studied include: Newtonian mechanics, kinematics in one and two dimensions, electricity and magnetism, waves and optics, and atomic and nuclear physics. CCC credit offered for students with a Math ACT of 23 or higher. Cost and registration for the CCC credit is required otherwise it will just be high school credit.

CCC BIOLOGY (Year)
Level: 11, 12
Prerequisite: Teacher permission and B or higher in Biology
This course covers fundamental processes of cells and organisms, cell structure, genetics, evolution, classification, diversity, and interaction of organisms at the molecular, cellular, organismic, ecosystems, and biosphere level. Includes lab.

SOCIAL STUDIES

SOCIAL STUDIES 1 & 2 (Year)
Level: 9 required
Students will study the past events that shaped our world from 500 AD to the present. Also, in this class, students will learn physical geography, map skills and human geography.

AP AMERICAN HISTORY (Year)
Level: 10, 11 - All juniors will either take American History or AP American History. Sophomores are allowed to take this course with teacher permission.
Prerequisite: 87% or higher in Freshmen Social Studies and evaluation of potential student's GPA and class rank.
The primary goal of this course is to prepare students for college by teaching nonfiction writing and critical analysis. The AP United States History program is designed to provide students with the analytical skills and factual knowledge necessary to deal critically with American History. This experience will include evaluation of primary source material, the use of secondary sources and essay examinations. A significant amount of reading and writing is expected in this course. The student will have the option of taking the AP exam to determine if college credit can be awarded for this class. The student will be asked to decide in January if they wish to take the test or not.

AMERICAN HISTORY (Year)
Level: 10, 11 - All juniors will either take American History or AP American History. Sophomores allowed as space permits.
This class is a survey of the post-Civil War American experience. Major historical events, people and movements will be evaluated with a view of how the past shapes the present.

GOVERNMENT (Semester)
Level:12 required
A study designed to increase knowledge of the basic principles of American government, the rights and responsibilities of citizens and the role of government in society.

CCC MICROECONOMICS / (CCC or HS credit) Fall Semester
Level: 11, 12
Prerequisite: Previous or concurrent enrollment in an Advanced Placement course OR Trig/PreCalc. Students must have either taken the ACT or the Accuplacer test prior to registering for CCC credit.
Microeconomics is the study of the individual and firms as economic actors. The course will focus on the fundamental concepts of scarcity, opportunity cost, supply/demand and price behavior. This is a CCC course (also available as a HS credit only course) and will be taught at a college level. Students are responsible for all tuition costs, fees and materials.

CCC MACROECONOMICS / (CCC or HS credit) Spring Semester

Level: 11, 12

Prerequisite: Previous or concurrent enrollment in an Advanced Placement course OR Trig/PreCalc. Students must have either taken the ACT or the Accuplacer test prior to registering for CCC credit.

Economics is a way of thinking with the goal of getting the most from any resource- money, time or natural resources. The course will focus on the macroeconomy with particular emphasis on fiscal and monetary policy, the role of government and international trade. This is a Central Community College course (also available as a HS credit only course) and will be taught at a college level. Students are responsible for all tuition costs, fees, and the purchase of the textbook.

60's & BEYOND (Semester)

Level: 10, 11, 12

Concepts that have helped shape America from the decades of the 60s, 70s, 80s, and 90s..

PSYCHOLOGY (Semester)

Level: 11, 12

Psychology is the study of the complex interaction between the mind and human behavior. Topics will include: child development, perception, learning, intelligence and creativity, personality, mental illness and treatment of mental illness.

SOCIOLOGY (Semester)

Level: 11, 12

Sociology is the study of society and human relationships. This class will discuss the following topics: Culture and Social Structure, The Individual In Society, and Social Inequality. This class will meet five days a week. Several research projects will be conducted as part of this course. (There is no service-learning component in this class.)

WORLD LANGUAGE

A WORLD LANGUAGE CLASS IS NOT A GRADUATION REQUIREMENT. The prerequisite for 9th graders entering First Semester Language Classes includes having a score at the 60th% or above on the 8th Grade Language tests.

FRENCH 1 & 2 (Year)

Level: 9, 10, 11

Students will be introduced to the French language and culture. Basic grammar topics and vocabulary are emphasized. Oral work, reading, and cultural activities are included.

FRENCH 3 & 4 (Year)

Level: 10, 11, 12

Prerequisite: French 1 & 2

Recommended for sophomores, juniors and seniors who are fulfilling university language requirements. This course is a review and continuation of basic skills. Emphasis will be on developing writing and speaking skills to a further extent as well as increasing cultural awareness.

GERMAN 1 & 2 (Year)

Level: 9, 10, 11

Students will be introduced to the German language and the culture of German-speaking peoples. Basic grammar and vocabulary will be covered with a focus on students' skills in reading, writing, speaking and listening, as well as on their cultural knowledge.

GERMAN 3 & 4 (Year)
Level: 10, 11, 12
Prerequisite: German 1 & 2
Will begin in 2020-2021

SPANISH 1 & 2 (Year)
Level: 9, 10, 11
This is a foundation course recommended for 9th – 11th graders who need to fulfill university language requirements and other students interested in the Spanish language and culture. It is not a required class to graduate from NW. There will be special emphasis placed on the four basic language skills: listening, speaking, reading and writing. Understanding spoken and written language, as well as basic structure and vocabulary of the language will be covered. Basic pronunciation and oral communication will be developed.

SPANISH 3 & 4 (Year)
Level: 10, 11, 12
Prerequisite: Spanish 1 & 2
This is an advanced course with special emphasis on the four basic language skills: listening, speaking, reading and writing. Activities are designed to reinforce the structures and concepts taught in Spanish 1 & 2. Emphasis is placed on helping the student to develop skills of communication to grow in the power to express him/her accurately and creatively in the foreign language.

SPANISH 5 & 6 (Year)
Level: 11, 12
Prerequisite: Spanish 3 & 4
This advanced course will continue the material begun in Spanish 1 & 2 and 3 & 4 and will also add advanced structures and vocabulary. Students will work on advanced communication and writing skills.

SPANISH 7 & 8 (Year)
Level: 12
Prerequisite: Spanish 5 & 6
This course is for the advanced student with a serious interest in Spanish. Students will continue to study advanced grammar and vocabulary and work on their reading, writing, listening and speaking skills.

SENIOR OPTIONS

ALL seniors will have 4 classes at Northwest each semester. Seniors are allowed to take only ONE of the following four options at a time each semester.

CENTRAL COMMUNITY COLLEGE EARLY ENTRY PROGRAM
Prerequisite: Student must take the ACT prior to registering for the program OR meet the minimum grade requirement . All necessary paperwork must be completed in a timely manner.
Seniors have the opportunity to take college coursework at Central Community College, and earn high school as well as college credit. Courses can be for academic transfer or for general interest. Seniors are allowed to take one course each semester while taking at least four classes at Northwest. The tuition is approximately $100 per credit hour.
Registration for the CCC class/classes will take place at Northwest as the counselors from CCC come to the school. The process will take place in April for the fall semester and in November for the spring semester.

COOPERATIVE EDUCATION PROGRAM /DIVERSIFIED OCCUPATIONS

Prerequisite: Each student enrolled in this class MUST have the Cooperative Education Teacher's signature (approval) and an acceptable job in place "BEFORE" starting this program.

This program is designed to prepare students for the future in their career interest area. Local businesses and Northwest High School join together and cooperate as a team to help students develop valuable career skills and abilities. Being in this program allows students to receive school credit for on-the-job training during the school day. Students will be dismissed one, two, or three periods (6-8th periods, 7-8th periods, or 8th period), required to work a specified amount of hours correlating to how many hours they are signed up for this program, and will be supervised by the Cooperative Education Coordinator. Several specific guidelines for the program include maintaining an acceptable job throughout the semester, attending weekly meetings, turning in weekly reports, turning in bi-monthly pay stubs, and completing other assignments as required for the program.

If a student is not fulfilling his/her obligation in the Cooperative Education Program, that student will NOT be able to leave school during his/her Cooperative Education class periods. He/She will remain in school under the supervision of the Cooperative Education Coordinator until all obligations are met.

TEACHER APPRENTICE PROGRAM

Prerequisite: Students must furnish their own transportation and expenses. No reimbursement is received.

Students interested in pursuing an opportunity in education are encouraged to participate in the Teacher Apprentice Program. Students spend two or three periods a day assisting and observing regular teachers in a nearby elementary or middle school. Students have the opportunity to study various teaching methods and work directly with the teacher and their students. Students need to dress and act appropriately and are responsible for notifying the schools in case of schedule conflicts. A senior can earn five (5) credits per semester for this opportunity. The class is graded pass/fail and will not count toward their GPA.

Seniors can take the following class for one or two semesters in addition to one of the options above.

CAREER EXPLORATION

This is a class for seniors interested in gaining knowledge and experience in a career field of interest. Students will observe and/or participate in activities at an organization/work site that will provide insight for future career decisions. Students must complete a total of 40 hours of volunteer service during the semester for an approved organization. In addition, students will also be required to complete interviews, reflection papers, and a senior project describing their acquired knowledge and experiences throughout the semester. Students will be excused either one or two periods during the day to volunteer and may be expected to serve extra time outside of school hours to meet the 40 hours required for the class. The periods designated depend on the rest of the student's schedule. These hours will be in addition to the 40 community service hours required for graduation.

2019-2020 CAREER TECHNICAL EDUCATION PATHWAYS

AGRICULTURE, FOOD AND NATURAL RESOURCES			
	Intro Course	**Intermediate Course**	**Capstone Course**
Animal Systems: Companion Animals	Intro to Agriculture, Food and Natural Resources	Animal Science/Biology	Companion Animals
Animal Systems: Veterinary	Intro to Agriculture, Food and Natural Resources	Animal Science/Biology	Veterinary Science
Plant Systems:	Intro to Agriculture, Food and Natural	Plant Science/Horticulture	Floriculture

Floriculture	Resources		
BUSINESS, MARKETING, AND MANAGEMENT			
	Intro Course	**Intermediate Course**	**Capstone Course**
BMA: Law	Intro to Business, Marketing and Management	Accounting	Business Law
BMA: Entrepreneurship	Intro to Business, Marketing and Management	Accounting	Entrepreneurship
BMA: Academy	CCC Microeconomics	CCC Macroeconomics	Accounting
Finance: Accounting	Personal Finance		Accounting
Finance: AP Economics	Personal Finance	CCC Microeconomics	CCC Macroeconomics
Finance: Financial Management	Accounting		Advanced Accounting
Restaurants, food and Beverage Services Culinary	Fundamentals of Food and Nutrition	Culinary Skills I	Culinary Skills II
COMMUNICATION AND INFORMATION TECHNOLOGY			
Information Technology	Information Technology I	Information Technology II	Digital Media 2 (Media Production)
HEALTH SCIENCE			
	Intro Course	**Intermediate Course**	**Capstone Course**
Life Span Performance	Intro to Health Science	Anatomy and Physiology	Intro to Sports Medicine
Project Lead the Way	Principles of Biomedical Science	Human Body Systems/Anatomy & Physiology	Medical Interventions
SKILLED AND TECHNICAL SCIENCES			
	Intro Course	**Intermediate Course**	**Capstone Course**
CONST - PLTW Basic Construction	Intro to Engineering Design	Construction Systems (Principles of Construction Tech)	Carpentry (Advanced Construction Technology)
Engineering and Technology: PLTW Civil I	PLTW Principles of Engineering	PLTW Civil Engineering and Architecture	PLTW Engineering Design and Development
Engineering and Technology: PLTW Civil II	PLTW Introduction to Engineering Design	PLTW Civil Engineering and Architecture	PLTW Engineering Design and Development
Engineering and Tech: PLTW Civil III	PLTW Principles of Engineering		PLTW Civil Engineering and Architecture
Engineering and Tech: PLTW Civil IV	PLTW Introduction to Engineering Design		PLTW Civil Engineering and Architecture

Manufacturing - Basic	Computer Aided Drafting	Manufacturing-Woods	Manufacturing-Welding
Manufacturing - Construction	Computer Aided Drafting	Manufacturing-Woods	Principles of Construction
Manufacturing - Woods	PLTW Introduction to Engineering Design		Manufacturing-Woods
Manufacturing - Welding	PLTW Introduction to Engineering Design		Manufacturing-Welding
Manufacturing - Standard Woods	Computer Aided Drafting	Manufacturing-Woods	Advanced Fabrication and Manufacturing - Woods
Manufacturing - Engineering Woods	PLTW Introduction to Engineering Design	Manufacturing-Woods	Advanced Fabrication and Manufacturing - Woods

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SPORTS IN COLLEGE

If you are planning to play sports your freshman year of college, you need to do some planning now. In addition to high school graduation requirements and college admission requirements, there are also requirements for the sports programs.

If you are interested in a Division I or Division II college, you need to register with the NCAA Clearinghouse. If you are interested in a Division III college, you need to register with the NAIA.

UNIVERSITY REQUIREMENTS

As you and your parents are making decisions about course selection, please keep in mind that some colleges have very specific admissions REQUIREMENTS while others have RECOMMENDATIONS. The University system (the University of Nebraska at Lincoln, Kearney and Omaha) has the following admissions REQUIREMENTS:

-4 years of approved English classes
-3 years of approved Science classes
-3 years of approved Social Studies classes
-2 years of World Language classes (must be the same language)
-ACT of 20+ or that you rank in the top half of your graduating classes

AND

-4 years of approved Math classes at the University of NE at Lincoln (UNL wants Algebra I, Geometry, Algebra II, and Trigonometry/Pre-Calculus, or Discrete Math, or College Algebra/Business Statistics)

OR

-3 years of approved Math classes at the Universities of NE at Kearney or Omaha (UNK and UNO want Algebra I, Geometry, and Algebra II. If you don't take a 4th year of math, students must have an additional year in Science or Social Studies)

The Nebraska state and private four-year colleges, as well as the two-year colleges have admission RECOMMENDATIONS. They recommend certain classes for students to take but still admit you even if you haven't taken those classes. Some out-of-state colleges have specific REQUIREMENTS while others may have

RECOMMENDATIONS. Students should start exploring requirements early so they are well informed. Students should challenge themselves with coursework so that a smooth transition can take place following graduation.

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