

Course Offerings 9-12

Sciences		
13030	Physical Science	Physical Science involves the study of the structures and states of matter. Typically (but not always) offered as introductory survey courses, they may include such topics as forms of energy, wave phenomenon, electromagnetism, and physical and chemical interactions.
13020	Biology	Biology is designed to provide information regarding the fundamental concepts of life and life processes. This course includes (but are not restricted to) such topics as cell structure and function, general plant and animal physiology, genetics, and taxonomy.
13031	Chemistry	Chemistry involves studying the composition, properties, and reactions of substances. This course typically explores such concepts as the behaviors of solids, liquids, and gases; acid/base and oxidation/reduction reactions; and atomic structure. Chemical formulas and equations and nuclear reactions are also studied.
13021	Anatomy	Human Anatomy (Science) presents an in-depth study of the human body and biological system. Students study such topics as anatomical terminology, cells, and tissues and typically explore functional systems, such as skeletal, muscular, circulatory, respiratory, digestive, reproductive, and nervous systems.
13036	Forensics	Students will learn the methodology needed to evaluate a crime scene, the proper lab mechanics needed to evaluate evidence, and how to compare between a known and unknown. Topics may include the history of forensic science, collecting of evidence, analyzing results and hands-on application of many laboratory techniques used in solving crimes. Emphasis would be placed on the application of the scientific method to life-long skills and problem solving

Language Arts

05071	English 9	English 9 builds upon students' prior knowledge of grammar, vocabulary, word usage, and the mechanics of writing and usually include the four aspects of language use: reading, writing, speaking, and listening. Typically, this course introduces and defines various genres of literature, with writing exercises often linked to reading selections.
05072	English 10	English 10 usually offers a balanced focus on composition and literature. Typically, students learn about the alternate aims and audiences of written compositions by writing persuasive, critical, and creative multi-paragraph essays and compositions. Through the study of various genres of literature, students can improve their reading rate and comprehension and develop the skills to determine the author's intent and theme and to recognize the techniques used by the author to deliver his or her message.
05073	English 11	English 11 continues to develop students' writing skills, emphasizing clear, logical writing patterns, word choice, and usage, as students write essays and begin to learn the techniques of writing research papers. Students continue to read works of literature which often form the backbone of the writing assignments. Literary conventions and stylistic devices may receive greater emphasis than in previous courses.
05074	English 12	English 12 blends composition and literature into a cohesive whole as students write critical and comparative analyses of selected literature, continuing to develop their language arts skills. Typically, students primarily write multi-paragraph essays, but they may also write one or more major research papers.
05081	Journalism	Journalism examines specific topics in journalism and broadcasting other than those already described.

Social Sciences

15070	Geography	Geography provides students with an overview of world geography, but may vary widely in the topics they cover. Topics typically include the physical environment; the political landscape; the relationship between people and the land; economic production and development; and the movement of people, goods, and ideas.
15089	World History	World History provides students with an overview of the history of human society from early civilization to the contemporary period, examining political, economic, social, religious, military, scientific, and cultural developments. World History may include geographical studies, but often these components are not as explicitly taught as geography.
15401	ND Studies	North Dakota Studies courses examine the history, politics, economics, society, and/or cultures of the state in the United States. This course may focus primarily on the history of this state or may take an interdisciplinary approach to the contemporary issues affecting it.
15085	US History	U.S. History provides students with an overview of the history of the United States, examining time periods from discovery or colonialism through World War II or after. This course typically includes a historical overview of political, military, scientific, and social developments. Course content may include a history of the North American peoples before European settlement
15201	POD	Principles of Democracy combine a study of the structure of national, state, and local U.S. government with an overview of the principles of market economics. Course content may include contemporary U.S. issues. The purpose of this course is to prepare students to perform effectively as informed citizens. Students must read the Declaration of Independence, the United States Constitution, and the Bill of Rights. If the state mandated Personal Finance concepts are not offered to all students in another course, then these concepts must be included in the Problems of Democracy curriculum.
15120	Psychology	Psychology introduces students to the study of individual human behavior. Course content typically includes (but is not limited to) an overview of the field of psychology, topics in human growth and development, personality and behavior, and abnormal psychology.
15130	Sociology	Sociology introduces students to the study of human behavior in society. This course provides an overview of sociology, generally including (but not limited to) topics such as social institutions and norms, socialization and social change, and the relationships among individuals and groups in society.

Mathematics		
11030	Pre Algebra	Prealgebra increases students' foundational math skills and prepare them for Algebra I by covering a variety of topics, such as properties of rational numbers (i.e., number theory), ratio, proportion, estimation, exponents and radicals, the rectangular coordinate system, sets and logic, formulas, and solving first degree equations and inequalities.
11031	Algebra I	Algebra I includes the study of properties and operations of the real number system; evaluating rational algebraic expressions; solving and graphing first degree equations and inequalities; translating word problems into equations; operations with and factoring of polynomials; and solving simple quadratic equations.
11120	Geometry	Geometry, emphasizing an abstract, formal approach to the study of geometry, typically includes topics such as properties of plane and solid figures; deductive methods of reasoning and use of logic; geometry as an axiomatic system including the study of postulates, theorems, and formal proofs; concepts of congruence, similarity, parallelism, perpendicularity, and proportion; and rules of angle measurement in triangles.
11032	Algebra II	Algebra II topics typically include field properties and theorems; set theory; operations with rational and irrational expressions; factoring of rational expressions; in-depth study of linear equations and inequalities; quadratic equations; solving systems of linear and quadratic equations; graphing of constant, linear, and quadratic equations; properties of higher degree equations; and operations with rational and irrational exponents. The course may introduce topics in discrete math, elementary probability and statistics; matrices and determinants; and sequences and series.
11160	Trigonometry	Trigonometry prepares students for eventual work in calculus and typically includes the following topics: trigonometric and circular functions; their inverses and graphs; relations among the parts of a triangle; trigonometric identities and equations; solutions of right and oblique triangles; and complex numbers.
11181	Precalculus	Precalculus combines the study of Trigonometry, Elementary Functions, Analytic Geometry, and Algebra topics as preparation for calculus. Topics typically include the study of complex numbers; polynomial, logarithmic, exponential, rational, right trigonometric, and circular functions, and their relations, inverses and graphs; trigonometric identities and equations; solutions of right and oblique triangles; vectors; the polar coordinate system; conic sections; Boolean algebra and symbolic logic; mathematical induction; matrix algebra; sequences and series; and limits and continuity.

Physical Education		
08010	9-12 PE	Topics covered within Health Education courses may vary widely, but typically include personal health (nutrition, mental health and stress management, drug/alcohol abuse prevention, disease prevention, and first aid) and consumer health issues. The course may also include brief studies of environmental health, personal development, and/or community resources.
08040	Weight Training	Weight Training helps students develop knowledge and skills with free weights and universal stations while emphasizing safety and proper body positioning; they may include other components such as anatomy and conditioning.
08042	Physical Education Equivalent	This course awards physical education credit for other at-school activities, such as marching band or cheerleading.

Music		
12051	Band	Instrumental Music (Band) develops students' technique for playing brass, woodwind, and percussion instruments and cover a variety of non specified band literature styles (concert, marching, orchestral, and modern styles)
12040	Chorus	Vocal Music (chorus) provides the opportunity to sing a variety of choral literature styles for men's and/or women's voices and are designed to develop vocal techniques and the ability to sing parts.

Technology and Engineering		
10260	3D Modeling and Design	Students will explore systems of design, construction and testing. Through the use of CAD software, students will gain technical skills in product design, prototyping, and the design process.
10410	Technological Design	In Technological Design, engineering scope, content, and professional practices are presented through practical applications. Students in engineering teams apply technology, science, and mathematics concepts and skills to solve engineering design problems and innovate designs. Students research, develop, test, and analyze engineering designs using criteria such as design effectiveness, public safety, human factors, and ethics. This course is an essential experience for students who are interested in technology, innovation, design, and engineering. A state recommended course guide is available.
10111	Construction Tech	To study the technology involved in the construction of residential and industrial structures. Study will include designing, planning, and constructing structures using various materials and methods.
10411	Robotics Engineering	Robotics Engineering provides a comprehensive study of engineering concepts including physics, programming, mechanical systems, electrical and electronics systems. These core concepts are delivered with a robotics emphasis through relevant activities and projects.

Family and Consumer Sciences

09131	Foods I	This introductory course will prepare students to make critical decisions about food that will contribute to their health and wellbeing of themselves, their families and their communities. The course may include basic food selection and storage, accurate and appropriate measuring, basic cooking terms and techniques, and working safely in the kitchen. Students will learn how to read food labels and how to apply them to their eating habits and their dietary needs. Lab experiences will focus on preparing and tasting a variety of foods.
09135	Foods II	This course will examine the nutritional needs of the individual, emphasizing the relationship of diet to health. Enhanced cooking terms and techniques, kitchen and meal management, time and resource management and food preparation techniques will be explored. This course may include food trends and lifestyle options such as organic foods, vegetarian diets, and convenience foods, eating out, lactose and gluten intolerance and nutrition supplements. Lab experiences will align with and enhance the course content using a variety of foods and preparation methods
09027	Clothing I	This course introduces students to basic consumer skills regarding fabric, design, construction, and maintenance techniques. Instruction may include cost analysis, wardrobe planning, basic sewing and fiber terminology, equipment for hand and/or machine sewing, reading and using a pattern, and care and maintenance of fabrics and garments. ½ or 1 Max credit = 1 09028 Consumer and Resource Management 9-12 To help students learn how to make int
09029	Clothing II	This course provides students with knowledge and skills to identify and incorporate design details in garments or environmental textiles, assess and upgrade commercially produced patterns or products, and perform basic repairs and/or alterations. Lab experiences may include design and/or construction of one or more projects related to the concepts taught.
09025	Independent Living	To prepare students for responsibilities involved in becoming self sufficient young adults preparing for life away from the parental home during or immediately following high school. Course content may include: living independently; supporting oneself; making financial decisions**; making choices about housing, nutrition and food, clothing, transportation, health and wellness; using time to achieve personal goals; finding balance in life; current issues that affect personal decisions; societal and environmental impacts of personal decisions; sources of support and assistance in the community; leadership development.

09030	Fashion Design	This project-oriented course introduces students to historical, current and futuristic aspects of the fashion industry including use of color and design principles, identifying fashions and fads, merchandising, apparel and environmental product production, entrepreneurship, and careers in the fashion industry. In this course, science, mathematics, management, communication skills, and teamwork are reinforced.
09026	Child Development	To increase students' knowledge of how children grow and develop, and to foster acquisition of skills that promote healthy development of the individual. Content may include: processes in individual development; cultural and ethnic differences and similarities in child care; how children learn; age-appropriate activities for children; family development and preparation for parenthood; prenatal development; changing relationships within the family; current issues relating to children and families; sources of support and assistance; related careers; leadership development.