Richardton-Taylor School Course Catalog

Richardton-Taylor School Mission Statement

The Richardton-Taylor Schools empower students with knowledge, skills, and character to thrive – We EXPECT SUCCESS



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Section 504 (Child Find Notice)
Pursuant to Section 504 of the Rehabilitation Act of 1973, the District has a duty to identify, refer, evaluate and if eligible, provide a free, appropriate public education to students with disabilities. For information regarding parent/guardian and student rights, or for answers to any questions you might have about identification, evaluation, and placement into Section 504 programs, please contact Mrs. Sara Scott-Singer, Title IX Coordinator/Section 504 Coordinator 320 Raider Rd, Richardton ND, 58652, 701-974-2111, Sara.Scottsinger@k12.nd.us.

IDEA Annual Notification of Child Find:
All children with disabilities residing within the boundaries of Bismarck Public Schools that need special education and related services are identified, located, and evaluated through the child find process regardless of the severity of their disability. This includes children with disabilities attending private schools. Anyone who suspects a student between the ages of 3 and 21 may have a disability should contact Mrs. Corinna Vigness, Richardton-Taylor Public Schools Special Education Director, at 701-974-2111 or Corinna.Vigness@k12.nd.us.

Equal Employment and Educational Opportunities (Non-Discrimination Notice)
The Richardton-Taylor Public School District does not discriminate on the basis of race, color, national origin, sex, disability, or age in its programs and activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the non-discrimination policies: Mrs. Sara Scott-Singer, Title IX Coordinator/Section 504 Coordinator 320 Raider Rd, Richardton ND, 58652, 701-974-2111, Sara.Scottsinger@k12.nd.us.

How to Use this Guide

This high school registration guide is designed to help you and your parents select your courses for next school year. Registration is a process of selecting courses. We use registration data to formulate our master schedule and hire and assign teachers. The scheduling process, in which teachers are determined, is completed by administrative staff during Spring of every school year, for the following year.

Grade Point Average (GPA) Calculation

Grade Point Average (GPA) will be calculated on a 4.0 scale system of A=4.0, B=3.0, C=2.0, D=1.0, F=0.0 for all high school classes except Advanced Placement courses. Advanced Placement courses at the high school level will use a weighted grade system of A=5.0, B=4.0, C=3.0, D=2.0, F=0.0 for calculation of Weighted Grade Point Average (GPA). Weighted and Non-weighted GPA will be recorded on the official transcript. Class rank shall be determined based on GPA, with all 4.0 GPA and above given the rank of 1 in the class.

Dual Credit (Grades 10-12 Only)

According to action by the North Dakota legislature, "Any North Dakota student enrolled in grade ten, eleven, or twelve in a public high school is eligible to receive high school and postsecondary credit for the successful completion of an academic course offered by any postsecondary institution accredited by a regional accrediting organization or a career and technical education course offered by a postsecondary institution in a program accredited by a national or regional accrediting organization recognized by the United States department of education." Students interested in information about postsecondary enrollment options should meet with their high school counselor. *Anatomy & physiology, Biology, AB Calculus, BC Calculus, Certified Nursing Assistant, Chemistry, College Algebra, English 12, Introduction to Coaching, Introduction to Nursing, Medical Careers, Medical Terminology, Physics, Prevention & Care of Athletic Injuries, Probability and Statistics, Speech, and US History, Web Page Design.*

Class Change Requests

Once the registration process is complete, class change requests are discouraged, and in most cases, are not possible.

ART DEPARTMENT

ART I

Grade Placement: 9, 10, 11, 12.....1 credit..... Full Year

This beginning class explores the elements and principles of art through the study of different media. This class also prepares students for advanced classes. It allows students to investigate color theory, art history and techniques in drawing, painting, sculpture, and printmaking. Students will reflect on their art through verbal and written interpretation. Artists will have an opportunity to exhibit their art.

ARTS & CRAFTS

Grade Placement: 9, 10, 11, 12…….1/2 credit ..... **Semester 1 or 2**

This course will provide students with exposure to cultural and contemporary projects that relate to their everyday life and usage. Projects that may be covered include: glass etching, weaving, tie-dye, jewelry, clay work, sand painting, and print making. These areas of study will vary with each class and semester.

CERAMICS & SCULPTURE I

Grade Placement: 10, 11, 12.....1/2 credit..... Semester 1 or 2

This introductory course emphasizes the investigation into three dimensional forms. Students will use a variety of techniques, mediums, and processes that focus on additive, subtractive, fabricated processes. Along with being exposed to an introduction to the elements and principles of art and design. Examples include a variety of functional and non-functional ceramic techniques and an introduction to throwing on the wheel and hand building. Mediums used in the sculpture section of the class will include, but are not limited to, the following: cardboard, styrofoam, plaster, wire.

CERAMICS & SCULPTURE II

Grade Placement: 10, 11, 12.....1/2 credit..... Semester 1 or 2

This intermediate course is designed for the student who has completed one semester of Ceramics & Sculpture I and would like to investigate more advanced projects in pottery and sculpture. Emphasis will be placed on personal and creative expression. Students will develop more skill sets on the wheel and with hand building, along with more advanced sculptural skills set dealing with additive and subtractive sculpture, such as recycled sculpture, styrofoam, and clay relief.

DRAWING & PAINTING I

Grade Placement: 10, 11, 12.....1/2 credit Semester 1 or 2

This introductory course is designed to help students develop their drawing and painting skills. Emphasis will be placed on exploring original ideas, craftsmanship, and art history. Students will be encouraged to participate in group critiques and will have an opportunity to display their work in art exhibitions. Some mediums that will be covered throughout this semester, but not limited to, are the following: graphite, charcoal, pastel, oil pastel, acrylic, and watercolor. Exploration may include these subject matters:
figures, still-life, landscapes, and portraitures.

DRAWING & PAINTING II

Grade Placement: 10, 11, 12.....1/2 credit Semester 1 or 2

This intermediate course is designed to help students further develop their drawing and painting skills. There will be a strong emphasis placed on composition using the principles of design, working from original ideas, craftsmanship, and art history. Mediums that will be covered throughout this semester include, but not limited to, the following: graphite, charcoal, pastel, oil pastel, acrylic, watercolor and gouache. Exploration may include these subject matters: figures, still-life, landscapes, and portraitures. Students will be expected to learn about presentation methods and participate in group critiques and will display their artwork in art exhibitions.

BUSINESS DEPARTMENT

ACCOUNTING I

Grade Placement: 10, 11, 12.....….1/2 credit..... **Semester 1 or 2**
Accounting is the "language of business." This course provides students with the fundamentals of maintaining financial records for sole-proprietorships, partnerships, and Accounting II. Students will explore how an enterprise maintains its financial record of daily business transactions, end-of-period work, financial statements, inventory, and depreciation. Students will complete real-life business simulation projects. General ledger accounting software and Microsoft Excel will be utilized. General ledger accounting software will be utilized

COMPUTER SCIENCE PROGRAMMING
Grade Placement: 10, 11, 12.....….1/2 credit..... **Semester 1 or 2**
Basic programming concepts are presented, which are transferable to other programming languages. Foundational concepts and fundamentals of computer programming, including logic, design, coding, structure, and controls, are addressed. Careers in programming are explored, and students are provided with opportunities to increase their communication, teamwork, and critical thinking skills. Business projects are used to show how programming skills are used in the business world.

CYBER APPLICATIONS
Grade Placement: 10, 11, 12.....….1/2 credit..... **Semester 1 or 2**
This course is designed for students who are interested in exploring careers in Cybersecurity. The focus of instruction includes the implementation and monitoring of security on network and computer systems. Students will investigate strategies to identify and protect against security threats such as hackers, eavesdropping, and network attacks. The basics of cryptography and logic reasoning will be explored. Hands-on labs in the CYBER.ORG Range provide practice in the configuration and mitigation of system vulnerabilities. Each unit integrates current events and related cyber ethics and law. An ethics agreement must be signed by all students and parents during the first 2 weeks of class.

DESKTOP PUBLISHING

Grade Placement: 11.....….1/2 credit ..... **Semester 1 or 2**
Students in Desktop Publishing will use desktop publishing software to create publications such as newsletters, banners, catalogs, brochures, letterhead, business cards, and programs. They will learn design techniques using multimedia integration, formatting skills, page layout, and templates. Students will explain the purposes, functions, and common features of desktop publishing software.

ENTREPRENEURSHIP

Grade Placement: 9, 10, 11, 12 .....….1/2 credit ..... **Semester 1 or 2**
Marketing II furthers student understanding and skills in the various marketing functions. Students coordinate channel management with other marketing activities, discuss the nature of marketing plans, generate product ideas, coordinate activities in the promotional mix and demonstrate specialized sales processes and techniques. Economic and financial concepts are also stressed throughout the course. Students will be applying what they learn by creating their own business throughout the semester.

FINANCIAL LITERACY

Grade Placement: 12.....1/2 credit ..... Semester 1 or 2
Students in Financial Literacy will study the impact of financial choices on personal and occupational goals and future earnings potential. Real-world topics include checking accounts, budgeting, saving for larte purchases, using credit cards, figuring out interest and fees, being a responsible consumer, earning power, learning about taxes and paychecks withholding, college costs, mortgage, retirement savings, and investments. This course will provide a foundational understanding of making informed personal financial decisions.

MULTIMEDIA

Grade Placement: 9, 10, 11, 12..... 1/2 credit..... Semester 1 or 2

Students in Multimedia will use digital images and videos to create meaningful documentation, production, and presentations. Images, logos, backgrounds, and navigation tools for digital display will be used in multimedia and internet applications. The topics of image editing, animation, file compression, digital audio/video editing, and planning for multimedia applications will also be discussed. Enhancements include proper format and appropriate use of graphics, animations, and transitions.

MARKETING I

Grade Placement: 9, 10, 11, 12..... 1/2 credit..... Semester 1 or 2

Students who have completed 1 semester of Marketing I will be able to sign up for Marketing II.

This course will provide students with an overview of marketing occupations, necessary for all careers. This introductory course develops student understanding and skills in various business & marketing functions. Students acquire knowledge of business activities and factors affecting business, develop verbal and written communication skills, utilize job-seeking skills, and participate in career planning. Projects are integrated throughout the course.

SPREADSHEETS

Grade Placement: 10..... 1/2 credit ..... Semester 1 or 2

Students in Spreadsheets will be introduced to spreadsheet software/applications to analyze business trends and solve problems for business and personal use. This course will include desi9gning and using worksheets, writing formulas, analyzing data, charting data, managing data, using pivot charts/tables, creating macros, and displaying information on web pages.

SPORTS AND ENTERTAINMENT MARKETING

Grade Placement: 10, 11, 12.....1/2 credit..... Semester 1 or 2

This course will provide students with an overview of careers as they relate to sports and entertainment marketing. Students develop understanding and skills in the areas of marketing, promotion, and sales. Students will be involved in an on-line simulation in the sports or entertainment field. They will also complete a project using current technology for a sports or entertainment venue.

WEB PAGE DESIGN

Grade Placement: 10, 11, 12…….1/2 credit..... **Semester 1 or 2**

This course introduces students to Adobe Dreamweaver, Fireworks, and Flash software for creating and maintaining web pages. The students will focus on the overall production processes with particular emphasis on design elements involving layout, navigation, and interactivity. Careers in web design are explored and students are provided with opportunities to increase their communication, teamwork, and critical thinking skills. *Dual credit from Bismarck State College is available.*

WORD PROCESSING

Grade Placement: 9…….1/2 credit ..... **Semester 1 or 2**

Students in Word Processing will use word processing software to create and edit documents such as business letters, envelopes, labels, flyers, reports, and newsletters. Improved productivity will be developed using time-saving shortcuts, including templates, marging, tables, and key commands. Students will continue to practice formatting, editing, composition, and proofreading.

CTE INTERNSHIP (BUSINESS)

Grade Placement: 11, 12…….1/2 credit..... **Semester 1 and/or 2**

Prerequisite: Student must have earned one full credit in a specific pathway of a CTE Coordinated Plan of Study. An internship may be a paid or unpaid job experience in which a student is teamed with a company or organization to extend the classroom learning. An application must be completed and approved prior to registration for the class. To begin the application process, schedule an appointment with your career advisor. Transportation to and from the training site is the responsibility of the student. Students must be enrolled in six classes (junior year) or five classes (senior year) in addition to the internship. Students must complete 75 hours of work for ½ credits.

COMPUTER PROGRAMMING I

Grade Placement: 9, 10, 11, 12…….1/2 credit..... **Semester 1 or 2**

Recommended: Currently enrolled in Algebra 1 or above

This course introduces the basics of computer programming using JavaScript. Students will write their own computer apps for their phone, create basic animations, and be introduced to HTML code. This hands-on course emphasizes logical thinking and problem-solving skills.

CTE INTERNSHIP (INFORMATION TECHNOLOGY)

Grade Placement: 9, 10, 11, 12……..….1/2 credit ..... **Semester 1 or 2**

This course serves as an integrative experience that is designed to give students the opportunity to expand their knowledge in the IT career pathway. It is a project-based course that incorporates 21st Century Skills including thinking critically and solving challenging problems. This course is an extension of an IT pathway class that a student has already completed or is concurrently in. The student will learn, refine, and apply skills necessary to be successful in IT related careers. Projects that incorporate the broader community and/or some aspect of "giving back" to others outside of school learning experiences are highly encouraged. Enrollment is gained through an application process. Please talk to your counselor for more details.

ENGLISH DEPARTMENT

ENGLISH 9

Grade Placement: 9…….1 credit ..... **Full year**

The required course for ninth graders earns one high school credit. The first semester's study includes composition, the short story, poetry, nonfiction, an epic poem and mythology, and speaking. The second semester covers the study of the novel, drama, grammar and composition, and speaking.

ENGLISH 10

Grade Placement: 10…….1 credit ..... **Full year**

Prerequisite: Successful completion of one credit of English 9 is recommended.

This course focuses on a traditional approach to sophomore English. During the sophomore year, students will complete units in speech, drama, literature, organizational skills, research, and library skills. In addition, this course will focus on a variety of writing styles, using correct grammar, sentence, paragraph, and essay structure. The literature units include the study of novels, short stories, poetry, and drama. Oral and written communication skills will be developed in this class.

ENGLISH 11

Grade Placement: 11…….1 credit ..... **Full year**

Prerequisite: Successful completion of one credit of English 10 is recommended.

During the junior year, students will complete units in the following areas: American literature, featuring poetry, drama, short stories, novels and essays from the Colonial Period through the twentieth century; and composition, emphasizing clear, concise, correct writing through exposure to exposition, description, narration, argumentation, and research. Other units may be included at the teacher's discretion.

ENGLISH 12

Grade Placement: 12…….1 credit ..... **Full year**

Prerequisite: Successful completion of one credit of English 11 is recommended.

During the senior year, students will complete units in the following areas: English literature, the study of the major works and authors in English literature from its beginning through the twentieth century, and composition, focusing on longer and more advanced papers, including a research paper. Other units may be added at the teacher's discretion.

ENGLISH ELECTIVES

CREATIVE WRITING

Grade Placement: 10, 11, 12…….1/2 credit ..... **Semester 1 or 2**

Creative Writing allows learners to express thoughts and ideas by developing their technique and individual style in poetry, short story, drama, essays, and other forms of prose, including communication for a variety of purposes and audiences. The Course emphasizes writing; however, learners study mentor texts to appreciate the form and craft.

SPEECH

Grade Placement: 10, 11, 12…….1/2 credit ..... **Semester 1 or 2**

Speech is a class designed for those students who would like to continue their study of speech theory and practice. Students in the course will study the principles of oral communication and prepare and present a variety of specialized speeches including speeches to inform and to persuade. *Dual credit is available through Bismarck State College.*

YEARBOOK - JOURNALISM II

Grade Placement: 9, 10, 11, 12…….1/2 or 1 credit ..... **1 semester / or Full year**

Journalism I is recommended before taking Journalism II-Yearbook, but not required.

This class may be taken more than once; however, only 4 credits of journalism may be applied toward minimum graduation requirements.

This course emphasizes such yearbook production fundamentals as planning and organization, design and layout, headline setting, advertising and photography. A yearbook will be produced by the class. Production of the yearbook requires work outside the classroom hour for completion of the book.

Richardton-Taylor High School Math Course Offerings
*It is possible to move between paths based on teacher discretion.

	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Path 1	Math 6	Math 7	Math 8	Algebra I	Geometry	Algebra II	^Precalculus w/ Trig +^College Algebra AND Probability and Statistics+^

Path 2	Math 6	Math 7	Algebra I	Geometry	Algebra II	^Pre-Calculus w/ Trig	+^College Algebra ^Calculus

MATH DEPARTMENT

ALGEBRA I

Grade Placement: 9, 10, 11, 12…….1 credit ..... **Full year**

Algebra I is a branch of mathematics that includes the use of variables to express general rules about numbers, number relationships, and operations. This is the first course in the traditional college preparatory sequence. This course will also be beneficial for anyone interested in a technical career.

ALGEBRA II

Grade Placement: 10, 11, 12…….1 credit ..... **Full year**

Prerequisite: Algebra 1 & geometry

This course is the minimum recommendation for students who wish to be prepared for success in credit-bearing college mathematics courses. Algebra II provides a review and expansion of basic terminology, notation, concepts, skills and application of algebra by means of a thorough examination of the real number system, including an introduction to statistics. An average of a "C" or better in Algebra I and Geometry or an average of an "A" in Informal Geometry is recommended.

CALCULUS

Grade Placement: 12…….1 credit ..... **Full year**

Prerequisite: Pre-calculus or Enriched Algebra II Consultation with the instructor required prior to registration. This course is designed for highly motivated students with a very strong background in mathematics. The material covered is equivalent to the first semester of college calculus, which includes a study of functions, graphs, limits, derivatives, and integrals. The use of a graphing calculator is required. An average of "B" or better in Pre-Calculus is recommended. *Dual credit from Bismarck State College is available with a minimum ACT mathematics score of 24 or an Advanced Mathematics Accuplacer score of 263. Credit can be earned for Calculus 1 (MATH 165).*

COLLEGE ALGEBRA

Grade Placement: 11, 12…….1/2 credit ..... **Semester 1 or 2**

Prerequisite: Algebra II or Enriched Algebra II

In this course, students will build upon their knowledge of solving linear and quadratic equations and inequalities, as well as graphing functions and relations. Other topics include polynomial and rational functions, systems of equations and inequalities, exponential and logarithmic functions. *Dual credit is available through Bismarck State College. Must have a minimum ACT score of 21 in math to be eligible for dual credit or an Accuplacer score of 255.*

GEOMETRY

Grade Placement: 10, 11, 12…….1 credit ..... **Full year**

Prerequisite: Algebra I or Algebra Year 1 and Year 2

This is a traditional geometry course recommended for students who intend to pursue a 4-year college degree. Geometry is one of the most interesting, creative, and useful branches of mathematics. The topics covered in this class include a study of deductive reasoning and proof, triangles, quadrilaterals, other polygons, geometric solids, and probability. Consideration is also given to the application of geometry to other subjects. An average of "C" or better in Algebra I is recommended.

MATH APPLICATONS

Grade Placement: 11, 12…….1 credit ..... **Full year**

Prerequisite: Teacher Recommendation

Math Applications is not recommended for students who have the ability to successfully complete Algebra II. This course illustrates a variety of practical applications of mathematics. Topics include, but are not limited to, real-world geometry, statistics, mathematics of finance, and problem solving. Credit earned from Math Applications can be counted toward math requirements for graduation; however, this course may not fulfill mathematics requirements for admission to a four-year college.

PRE-CALCULUS WITH TRIGONOMETRY

Grade Placement: 11, 12…….1 credit ..... **Full year**

Prerequisite: Algebra II

This course includes trigonometry with an introduction to polar coordinates, a study of sequences and limits, an introduction to two and three-dimensional vectors, and theory of equations. This course or its equivalent is a prerequisite for AP Calculus. An average of "B" or better in Algebra II is recommended. *Dual credit from Bismarck State College is available with a minimum ACT mathematics score of 21 or an Accuplacer score of 255*

MEDICAL DEPARTMENT

MEDICAL CAREERS

Grade Placement: 9, 10, 11, 12…….1 credit ..... **Full Year**

This year-long course provides students with information relating to the educational and professional requirements for the various medical careers. Students will study the infection control, fundamentals of diseases, basic anatomy and physiology, and medical terminology. Students will become certified in the Healthcare Provider level of CPR/AED for the Professional Rescuer and American HeartSaver First Aid. *Dual credit from Bismarck State College is available (HPER 210)* Students need to be sophomores in order to receive dual credit.

MEDICAL TERMINOLOGY - Online

Grade Placement: 10, 11, 12……..…..….1/2 credit ..... **Semester 1 or 2 Online**

This course will be offered as a dual credit course with Bismarck State College through the CRACTC. It is offered in an online format with proctored tests. In this course, students will develop skills necessary for decoding commonly used medical terms. Students will learn the meaning of medical suffixes, prefixes and word roots. This medical terminology course covers the basic knowledge and understanding of medical language and terminology used by healthcare professionals. This course requires students to work independently and manage their time well. *Dual credit through Bismarck State College (BOTE 171) is available. Must be 16 years old to apply for Dual Credit*

MUSIC DEPARTMENT

CONCERT BAND

Grade Placement: 7 , 8 , 9 , 10, 11, 12…….1 credit Full year

This group meets daily. Emphasis is on continued training in technique and musicianship. All instrumentalists are welcome in this group including those entering band for the first time or rejoining band. Performances include concerts, festivals, solo and ensemble festivals as well as

special community appearances. Students in this band will be a part of the PEP BAND and the MARCHING BAND. Students in the course will be eligible to participate in band tours which generally occur on an alternating year basis.

CONCERT CHOIR

Grade Placement: 10, 11, 12…….1 credit ..... **Full year**
Prerequisite: Audition with the instructor is required. Robe Fee: $20.00
Public performance and biannual tours are scheduled activities. Students have opportunity for festival auditions, contests and solo activities. Concert attire includes robes and black footwear. Shoe fee is $20.00. Shoes are ordered by the instructor.

PHYSICAL EDUCATION DEPARTMENT

PHYSICAL EDUCATION & WEIGHTS 9

Grade Placement: 9…….1/2 credit .....**Semester 1 or 2**
9th grade Physical Education integrates health and skill-related fitness concepts into the curriculum. Activities include individual dual and team sports, human sexuality, drug and alcohol risk behaviors, and prevention of bullying. It is required that all students wear a regulation Physical Education t-shirt, shorts, sweatpants, socks and athletic shoes. T-shirts can be purchased from the Physical Education department.

PHYSICAL EDUCATION & WEIGHTS 10

Grade Placement: 10…….1/2 credit .....**Semester 1 or 2**
10th Grade Physical Education integrates health and skill-related fitness concepts into the curriculum. Activities include individual dual and team sports, nutrition, drug and alcohol behavior risks, mental health, and physical wellness. It is required that all students wear a regulation Physical Education t-shirt, shorts, sweatpants, socks and athletic shoes. T-shirts can be purchased from the Physical Education department.

PHYSICAL EDUCATION & WEIGHTS 11

Grade Placement: 11…….1/2 credit .....**Semester 1 or 2**
This course is designed to provide physical activity for all students. Activities include softball, horseshoes, golf, badminton, basketball, volleyball, broomball, soft tennis, dance eclipse, table tennis, CPR, outdoor recreation, fitness activities, fitness testing, various team, individual and lifetime activities, and health concepts. It is required that students wear a regulation PE t-shirt, shorts, or sweatpants, socks and athletic shoes. PE shirts can be purchased from physical education instructors.

PHYSICAL EDUCATION & WEIGHTS 12

Grade Placement: 12…….1/2 credit .....**Semester 1 or 2**
This course is designed to develop physically educated individuals who have the knowledge, skills and confidence to enjoy a lifetime of physical activity. Activities include, (but are not limited to) golf, tennis, softball, horseshoes, Frisbee golf, biking, racquetball, volleyball, pickle ball, badminton, curling, bowling, broomball and various team, individual and lifetime activities. Some activities will involve time outside of the school day. If students are unable to attend, alternative activities will be provided. Students will need proper clothing, socks and athletic shoes. A fee will be assessed per student to cover the use of community facility equipment.

INTRODUCTION TO COACHING

Grade Placement: 10, 11, 12…….1/2 credit ..... **Semester 1 or 2**
May only take this course once. Only counts towards elective credit. Lab fees required
Course Description: Introduction to coaching focuses on the various responsibilities of a coach and the skills needed to successfully fill this important position. Throughout the course students will explore

various coaching models and leadership styles, sports nutrition, and sports psychology, as well as safety in conditioning and cross-training. Students will learn effective communication, problem-solving and decision-making skills. This course will also introduce students to game strategy, tactical strategy, skills-based training, and coaching ethics. **May only take this course once (Class could require field work).** *Dual credit is available through Bismarck State College.*

SPORTS OFFICIATING

Grade Placement: 10, 11, 12…….1/2 credit ..... **Semester 1 or 2**
May only take this course once. Only counts towards elective credit. Lab fees required
Course Description: In Sports Officiating, students will learn the rules, game play, and guidelines for a variety of sports, including soccer, baseball, softball, basketball, volleyball, football, and tennis. In addition, they will learn the officiating calls and hand signals for each sport, as well as the role a sports official plays in maintaining fair play. **May only take this course once (Class could require field work)**

SCIENCE DEPARTMENT

ANATOMY AND PHYSIOLOGY

Grade Placement: 10, 11, 12…….1 credit ..... **Full year**
Prerequisite: Biology
The Anatomy and Physiology course will provide a detailed study of the structures of the human body. Course content will include the major functional systems (nervous, digestive, circulatory, etc.) as well as concentration on function, location, and physiology. The physiology of the regulation and control of bodily functions will be of major importance. Preserved, latex injected lab specimens of cats will be used for dissections. This course is designed for students interested in pursuing a career in the medical profession and/or to prepare students for future college anatomy and physiology course work. *Dual credit is available through Bismarck State College.*

BIOLOGY

Grade Placement: 9, 10, 11, 12…….1 credit ..... **Full year**
Biology is the scientific study of living organisms. Major topics covered in the course include the cell, cellular reproduction, genetics, microbiology, botany, vertebrates, human biology and ecological relationships. A variety of lab work, including DNA study and dissections of various vertebrates (including fish, frogs and rats) are an important part of the course.

CHEMISTRY

Grade Placement: 9, 10, 11, 12…….1 credit ..... **Full year**
Prerequisite: Students must have successfully completed Physical Science and Algebra I
Chemistry is the study of atoms and molecules as they bond together to form the building materials of nature. The course is essentially inorganic and will prepare the student for college chemistry. Chemical principles and theories are presented in the classroom and laboratory. Algebra I is essential.

DC BIOLOGY

Grade Placement: 10, 11, 12…….1 credit ..... **Full year**
Prerequisite: Successful completion of Physical Science with above a C. Having taken General Biology and chemistry are suggested but not necessary. Students without the prerequisites required should be considered on track to be "college ready" per Sate assessment scores. Consultation with the instructor is required prior to registration.
AP Biology is a yearlong laboratory course which is an accelerated college level course designed for highly motivated students who are considering a college science major at the post-secondary level. This course includes an emphasis on the cell/ molecular biology. Topics covered include the cell,

cellular reproductive, genetics, energy in the biosphere, microbiology, ecological relationships. There is a variety of lab work. *This course has the option for students in grades 10-12 to earn dual credit.* Technical writing, critical-thinking and individual research skills are emphasized.

ENVIRONMENTAL SCIENCE

Grade Placement: 11, 12…….1 credit ..... **Full year**

Prerequisite: General Biology or AP Biology. Chemistry highly suggested. Consultation with the instructor required prior to registration.

The AP Environmental Science course is designed to be the equivalent of a one-semester, introductory college course in environmental science. The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. AP Environmental Science will usually be taken in the junior or senior year.

FORENSIC SCIENCE

Grade Placement: 1 0 , 11, 12…….1/2 credit... **Semester 1 or 2**

Learners will learn the methodology to evaluate a crime scene, the proper lab mechanics required to evaluate evidence, and how to compare the known and unknown. Topics include the history of forensic science, collecting of evidence, analyzing results, and hands-on application of many laboratory techniques used in solving crimes.

PHYSICAL SCIENCE

Grade Placement: 9……. 1 credit .....**Full year**

Physical Science is an introductory lab science involving the study of matter and energy. The study of matter includes properties of matter, physical and chemical changes, mixtures, elements, compounds, chemical reactions, and families of compounds. The study of energy includes motion, nature of forces, work, power, light, sound, electricity, heat and radioactivity. Students will conduct experiments using standard lab equipment and computer interface equipment.

PHYSICS 1

Grade Placement: 10, 11, 12…….1 credit ..... **Full year**

Prerequisite: Successful completion or current enrollment in Algebra II or prior instructor approval.

Physics is the science of matter and energy and interactions between the two. This class is equivalent to a first semester college course in algebra-based physics. The course content includes motion, forces, work, energy, power, rotational mechanics, and fluid behavior. Students have the option of taking the AP exam. *This course has the option for students to earn dual credit through Bismarck State College.*

STEM

Grade Placement: 9 , 10, 11, 12…….1/2 credit..... **Semester 1 or 2**

STEM: provides learners with a project-based, integrated, holistic experience with Science, Technology, Engineering, and Math.

SOCIAL STUDIES ELECTIVES

NORTH DAKOTA STUDIES

Grade Placement: 9, 10, 11, 12……**1/2 credit .....Semester 1 or 2**

This class open to all students in high school will focus on the history of North Dakota. Topics covered will include study of Native American tribes and cultures specific to North Dakota, the development of Dakota Territory into the State of North Dakota, along with state government, history, economics, and geography through articles from the North Dakota History Journal.

PROBLEMS OF DEMOCRACY

Grade Placement: 12…….1/2 credit Government, ½ credit Economics.....Full year

This course investigates the workings of American Government and covers five major themes, or units of government policy, theory, foundations, and behaviors. We will be analyzing the everyday practices that make up our government and help shape public policy. Course units include: Foundations of Democracy, Interactions among the three branches, Civil Liberties and Civil Rights, Political Ideologies, and Political Participation. This course meets the requirement for high school government and is worth ½ credit toward high school graduation. Students taking this course will also receive their ½ credit required for Economics. This course will be a blend between Economics and American Government and will cover ALL requirements for both courses.

PSYCHOLOGY

Grade Placement: 10, 11, 12…….1/2 credit ..... **Semester 1 or 2**

This is an elective course designed to introduce the student to psychology. It will enable students to better understand themselves and others. Emphasis is placed on human development, personality/behavior, learning/ thinking, abnormal behavior/therapy and the maintenance of mental health.

SOCIOLOGY

Grade Placement: 10, 11, 12…….1/2 credit ..... **Semester 1 or 2**

Sociology is an elective course designed to introduce students to the study of human groups and social environment(s). Demonstrating the relevancy of sociology to every student will be stressed with emphasis placed on culture, family, social groups/class, gender identity, social problems, religion, and the process of change in society. This course provides a foundation of vocabulary, concepts, and theories that will enable students to investigate evaluate and understand the social world in which we live.

US HISTORY

Grade Placement:11…….1 credit..... **Full year**

Consultation with instructor required prior to registration.

The Advanced Placement U.S. History course is a survey covering the major themes from earliest settlement to present times. Students electing to take AP U.S. History need to be self-directed, highly motivated and independent learners since there will be considerable use of primary sources, supplemental readings and research. Students will be encouraged to take the AP exam. The class fulfills the junior U.S. History requirement. *Dual credit is available through Bismarck State College.*

WORLD HISTORY I

Grade Placement: 10…….1/2 credit.....**Semester 1 only**

This course, open to all students in high school, focuses on the early civilizations of both hemispheres

and western Europe to 1500 A.D. It covers areas of study that include Egypt, Babylon, Greece, Rome, the Crusades, and early Asian, African, and African cultures. It also covers the beginning of intellectual activity, the environment of political instructions, and the formation of economic systems.

TECHNOLOGY & ENGINEERING ELECTIVES

Applying Technology

Grade Placement: 8……. Semester 1 or 2

Applying Technology is a 1 semester class. In Applying Technology, students will explore several areas of learning in an activity-based classroom environment. Students will be studying in an individual or a team environment. Topics may include Basic Electronics, Rocketry, Hot-Air Ballooning, Computer-Aided-Design and 3D Printing, Construction, etc.

Technology & Society

Grade Placement: 9,10,11,12……. ½ credit……..Semester 1 or 2

Technology & Society is a video-oriented class during period 5A. A student will earn ¼ credit for each semester of completion. Students have the opportunity to earn 1 full credit during their high school career, or 4 semesters. In the class, students will complete video guide worksheets as they watch a variety of technology-related videos. Topics include: History of Technology, Engineering Advancements of Ancient Civilizations, Entrepreneurs of Technological Advancements, Inventions and Innovations, Product Development, and Technology in Modern Society. Students will likely have the opportunity to request videos of their choosing.

Foundations of Technology

Grade Placement: 9……. ½ credit……..Semester 1 or 2

Foundations of Technology is a 1 semester class. In Foundations of Technology, students will prepare to understand and apply technological concepts and processes that are the cornerstone for the high school technology program as they engage in creating ideas, developing innovations, working within groups, and engineering practical solutions to problems. Topics will likely include the History of Technology and the Engineering Design Process. Projects may include designing and building a roll cage that will protect an egg in a chair, designing and building a marshmallow launcher that will score baskets in a hoop, various forms of technical drawing, and designing and building a balsa wood crane to be tested with weight.

Invention & Innovation

Grade Placement: 10……. ½ credit……..Semester 1 or 2

Invention & Innovation is a 1 semester class. In Invention and Innovation, students will study the history of inventions and innovations, learn about how various inventions and innovations impact their lives, and apply the design process and their creativity in the invention or innovation of a new product, process, or system. Students will be challenged with a variety of activities to develop and test their problem-solving skills. Projects may include designing and testing various paper structures, a rubber band vehicle, drawing a medicine cabinet on SketchUp, designing a Lego project and then creating instructions to build it, technical drawing, and designing, building, and racing a CO2 car.

Advanced Design Applications – Construction

Grade Placement: 11,12……. ½ credit……..Semester 1 or 2

ADA Construction is a 1 semester class. In the first semester of ADA Construction, students will explore advanced methods used in the design of construction projects. Topics may include technical drawing, neighborhood planning, green building trends, framing, and surveying. In the second semester of ADA Construction, students will be introduced to some tools and processes used in construction and will likely have the opportunity to design, schedule, cost estimate, and produce a project made of wood (woodworking).

Advanced Design Applications – Manufacturing

Grade Placement: 11,12……. ½ credit……..Semester 1 or 2

ADA Manufacturing is a 1 semester class. In ADA – Manufacturing, students will explore advanced methods used in the design of manufacturing processes and manufactured parts. Topics may include customer influences on project design, production of components, a foundry project, assembly lines, quality control and quality assurance, and microcontroller programming. In the second semester of ADA – Manufacturing, students will be introduced to some tools and processes used in manufacturing and will likely have the opportunity to design and produce a project made of metal (welding) and/or a project using a CNC embroidery machine or plasma cutter.

Advanced Technological Applications – Agricultural/Medical

Grade Placement: 11,12……. ½ credit……..Semester 1 or 2

ATA Agricultural/Medical is a 1 semester class. In the first semester of Agriculture/Medical, students will explore advanced technologies in agriculture and related biotechnologies and how they may influence human life, with a focus on projects related to plant breeding. In the first semester of Agriculture/Medical, students will explore advanced technologies used in medicine and how they have progressed.

Engineering Design

Grade Placement: 11,12……. ½ credit……..Semester 1 or 2

Engineering Design is a class in which students can earn 1 full class credit. Students may take the class on a semester schedule, so they may take 2 separate semesters throughout their high school career. In Engineering Design, students will focus on how engineers apply their creativity, resourcefulness, mathematical, scientific, and technical knowledge and skills in the creation or refinement of technological products/systems. Topics during the first quarter may include geotechnical analysis of soil, concrete design and testing, engineering economics, gear ratios, statistical analysis, industrial design, construction scheduling, structural analysis, scale reading, etc. During the second quarter, students will likely have the opportunity to design, perform an engineering analysis on, construct, and test a large project such as a beam or suspension bridge, concrete sailboat, rubber-powered airplane or helicopter, rocket, water turbine, gear train, wooden pendulum clock, or electric-powered crane.

Robotics Engineering

Grade Placement: 11,12……. ½ credit……..Semester 1 or 2

Robotics Engineering is a 1 semester class. During the first quarter, student will learn about various electrical components and how they are arranged in different order to create circuits to serve an intended purpose. During the second quarter, the students will learn how robots function and how to program different devices, including Arduinos, robotic arms, Lego MindS

CTE Cooperative Work Experience

Grade Placement: 12……. ½ credit……..Semester 1 or 2

The Cooperative Work Experience (CWE) course consists of students obtaining regularly scheduled, supervised employment that is related to a Career and Technical Education (CTE) program area. Most times, the student will be off campus at their work location during the class period they take the course. The employment must be preceded by, or concurrent with, classroom instruction related to the work experience. The CTE program areas in which a CWE course may be taken include Agricultural Education, Business Education, Family and Consumer Sciences Education, Health Sciences Education, Information Technology Education, Marketing Education, Technology and Engineering Education, and Trade, Industry, and Technical Education. The course is available on a selective basis – the employment must meet the requirements listed above, the instructor must have the capacity to coordinate the CWE, the schedule of the CWE must align with the student's in-school schedule, and the student must be a good fit for the position as demonstrated by their past performances in Technology & Engineering courses.

Technology & Engineering Capstone

Grade Placement: 12……. ½ credit……..Semester 1 or 2

The Capstone course is largely a self-paced experience available to a senior who has already taken and successfully completed several other Technology & Engineering courses. The student will choose from a list of projects to complete for the Technology & Engineering Department that aligns with their interests and abilities. The student will receive initial direction from the instructor, then will likely work on their own while the instructor is teaching a different class. The projects offered will likely involve problem solving, critical thinking, design, and production. Examples of past projects include designing and fabricating a prototype for a metal boot rack project; assembling, learning to operate, and writing instructions for new machines; designing and fabricating a project on the plasma table, assisting with instruction of novice welding students; completing unfinished projects from a previous class; and equipment maintenance. The course is available on a selective basis – there must be a need for the position (likely no more than one student per semester), and the student must be a good fit for the position as demonstrated by their past performances in Technology & Engineering courses. The instructor will have final determination of acceptance of a student into the course. See Mr. Isaak for more information.