

COURSE DESCRIPTION HANDBOOK



**ST. MARY'S
CENTRAL HIGH SCHOOL**



2020-2021

Encountering Christ | Pursuing Truth | Awakening Hearts

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REGISTRATION GUIDELINES

SMCHS GRADUATION REQUIREMENTS

Religious Studies	4 Credits
Math	3 Credits
Science (Physical Science, Biology and one other)	3 Credits
Social Studies (World History, US History I & II, Am. Government, Economics)	3 Credits
English	4 Credits
Physical Education	1 Credit
Fine Arts/Business Education/Foreign Languages* • must include 1 credit of Fine Arts or Career & Technical Education (must include Financial Literacy)	3 Credits
	21 Required Credits
	6 Elective Credits
TOTAL	27 Credits**

**Catholic & non-Catholic students will be required to earn 27 credits in order to receive a St. Mary's Central High School diploma, of which four credits must be in the Religious Studies curriculum.

A course will only be offered when there are a sufficient number of students enrolled.

Each college-bound student should become familiar with entrance requirements for the college of his/her choice. You may seek further information on-line or by writing to the Office of Admissions of the colleges of your choice. See the School Counselor for assistance.

Dual-credit courses provide the student with both high school and college credit, according to the provisions of North Dakota Century Code 15.1-25.

TYPICAL FOUR YEAR COLLEGE ENTRANCE REQUIREMENTS

Four credits of English language arts

Three credits of math, Algebra I and above

Three credits of lab science

Three credits of social studies

Two credits of foreign language (highly recommended)

COURSE OFFERINGS

ART

Introduction to Art

.5 credit

9, 10, 11, 12

This course is designed as a beginning art class for students wishing to pursue upper level art courses as well as fulfill their art requirement. Students will be introduced to the elements of art and principles of design while developing drawing skills & techniques. Studio experience in the classroom will give students opportunities to experience a variety of media while developing individual style and creative problem solving skills. Students will demonstrate their ability to respond, to analyze and to interpret their own artwork and the work of others through discussions, critiques and writings. (Course may only be taken once)

Intermediate Art

.5 credit

10, 11, 12

In this course students will build upon their knowledge and skills to create a greater depth of understanding of art and application of the elements of art and principles of design to their work in a variety of media. Studio experiences include drawing, painting, ceramics, sculpture & mixed media. Students will demonstrate their ability to respond, to analyze & to interpret their own artwork and the work of others through discussions, critiques and writings. **Prerequisite: Introduction to Art** (Course may be taken twice)

Advanced Art

.5 credit

11, 12

This course is designed for the highly motivated art students. In this course students are expected to become independent thinkers and to apply their knowledge of the elements & principles to their work (everything that happens on a two dimensional or three dimensional surface, regardless of media). Students will demonstrate their ability to respond, to analyze & to interpret their own artwork and the work of others through discussions, critiques and writings. **Prerequisite: Introduction to Art/ Intermediate Art (x2)** (Course may be taken twice)

Senior Studio Art

.5 credit

12

This Capstone class focuses on advanced visual practice & theory including the completion of a body of work & participation in a culminating exhibition. Senior Students will choose a topic for which they will research, create artwork based on that research and present to the community.

Prerequisite: Advanced Art (x2)

BUSINESS EDUCATION

Accounting I

.5 credit

9, 10, 11, 12

Accounting I emphasizes the basic accounting cycle from debits/credits to entering transactions in a journal, posting, general and subsidiary ledgers and preparing financial statements. Students interested in a career in business should consider Accounting I.

Accounting II

.5 credit

9, 10, 11, 12

Accounting II is an advanced accounting course that expands on topics covered in Accounting I. In addition, new topics covered are management accounting procedures, cost accounting, non-profit accounting, and financial analysis. Computerized accounting will also be implemented. This course is designed to prepare students for college business and accounting courses. **Prerequisite: Accounting I**

Business Law I

.5 credit

9, 10, 11, 12

This course provides students with details of transaction laws. It also discusses principles of law as they relate to business transaction including contracts, insurance, and loans, sales, negotiable instruments, partnerships, corporations, and property will be covered.

Business Law II

.5 credit

9, 10, 11, 12

This course provides students with details of transaction laws. It also discusses principles of law as they relate to business transaction including contracts, insurance, and loans, sales, negotiable instruments, partnerships, corporations, and property will be covered.

Career Management

.5 credit

9, 10

Career Management is designed to help students examine their personal strengths and interests and how these might relate to a career. The course will include competencies in self-assessment, matching interests to career choices, exploring the world of work, career research, and education and career planning. The course is designed to improve workforce skills needed in all careers including communication, leadership, teamwork, decision making, problem solving, goal setting, and time management. The curriculum is designed to prepare students for careers and education in the 21st Century.

Computer Applications

.5 credit

9, 10, 11, 12

This course is designed to assist the student in developing a solid foundation in basic computer software applications. Competencies are developed in Microsoft Word, Excel, Publisher, and PowerPoint.

Cooperative Work Experience

.5 credit

11, 12

This course provides students with a regularly scheduled, supervised employment or practicum opportunity related to their career goals in order to develop and improve work skills. The employment or practicum must be preceded by, or concurrent with, classroom instruction related to the work experience. There shall be a training agreement among all partners to the work/practicum experience (school, employer or supervisor, student, and parents/guardians) outlining the expectations of each party. The instructor shall also develop a specific training plan with the employer or supervisor for each student placed. The training plan shall include provisions for assessment of student progress, and for on-site visits by the program facilitator during the student's placement. All cooperative work experience placements will require the approval of the program facilitator. **Class size is limited, and preference will be given to seniors.**

Entrepreneurship

.5 credit

9, 10, 11, 12

Students in Entrepreneurship will develop skills needed to effectively organize, develop, create, and manage their own business. Topics covered include entrepreneurial concepts, characteristics of business organizations, business opportunities, entrepreneurial career examples, individual career assessment and planning, and entrepreneurial projects and simulations.

Financial Literacy (REQUIRED-Grade 10, 11 or 12)

.5 credit

10, 11, 12

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 large purchases, using credit cards, figuring interest and fees, being a responsible consumer, earning power, learning about taxes and paycheck withholding, college costs, mortgages, retirement savings, and investments. This course will provide a foundational understanding for making informed personal financial decisions.

Multimedia

.5 credit

9, 10, 11, 12

Students will engage in hands-on experiences using digital images and videos to create, produce, and present images, logos, graphics, videos, and sound. The curriculum will cover image-editing, file compression, digital audio/video editing, and planning for presentations. Most importantly, multimedia will give students an opportunity to express the creativity with through the use of technology.

Web Design Fundamentals

.5 credit

9, 10, 11, 12

This course provides students with a variety of ways to create and maintain web pages. The students will focus on the overall production process with particular emphasis on design elements involving layout, navigation and interactivity. The basic programs such as HTML, Visual Basic, Front Page, Dream Weaver, and Java are taught. Careers in Web Design are explored and students are provided with opportunities to increase their communication, teamwork, and critical thinking skills.

COMPUTER SCIENCE

ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES

(NMSI Online course)

1 credit—Full year

10, 11, 12

This course focuses on computational thinking that is vital for success in all disciplines. Students use computational tools to analyze and study data. They also work with large data sets to identify, analyze, and draw conclusions from trends. Also focuses on student creativity and collaboration to develop skills in oral and written communication and problem solving. Students will use software and technology to explore questions that interest them. Students are expected to take the AP Exam. **Students are required to take the AP Exam.**

Prerequisite: Successful completion of Algebra I.

FOREIGN LANGUAGE

Spanish I

1 credit

9, 10, 11, 12

Spanish I introduces the student to the language and cultures of Spanish-speaking countries by listening to the spoken language, participating in oral and written exercises, learning basic grammatical constructions and basic conversations.

Spanish II

1 credit

9, 10, 11, 12

Spanish II is a continuation of the basic skills presented in Spanish I. Reading, comprehension and communication skills are further developed and greater emphasis is placed on writing skills. **Prerequisite: Spanish I**

Spanish III

1 credit

10, 11, 12

Spanish III reviews and emphasizes skills taught in Spanish II. The finer points of grammar and more complex vocabulary are studied. There is a greater emphasis placed on comprehension and communication skills. The diverse Hispanic cultures are also studied through art, food, literature, and music. **Prerequisite: Spanish II**

Spanish IV

1 credit

11, 12

Spanish IV is a continuation of Spanish III with further development of comprehension and communication skills. Complex grammatical structures and vocabulary are reinforced. The diverse Hispanic cultures are also studied through food, history, literature, and music. **Prerequisite: Spanish III**

PHYSICAL EDUCATION

Physical Education

.5 credit

9, 10, 11, 12

Physical Education activities are designed to develop neuromuscular skills, strength, flexibility, endurance, coordination and an appreciation of leisure-time activities. The emphasis is on teamwork and competition. Subsequent courses will build on the knowledge of each sport and increasing the skill levels for various sports. Competition through tournament play is emphasized.

ENGLISH LANGUAGE ARTS

English 9 (REQUIRED)

1 credit

9

This year-long course involves the strengthening of reading, comprehending, and analyzing literature as well as a detailed study of literary terms and figurative language devices with their application to short stories, author biographies, novels, dramas, and poetry. There will also be a deepening study of grammar and mechanics and a strengthening of their writing skills by composing a small research paper in MLA format that incorporates outside sources with library research skills.

English 10 (REQUIRED)

1 credit

10

This is a year-long, genre-based literature and composition course. Together we will read and analyze short stories, poems, nonfiction (memoir), novels, and a play. Discussions and writing assignments will focus on literary elements and incorporating borrowed passages from the text and information and criticism from outside sources. Students will further develop their familiarity with the MLA (Modern Language Association) format for writing research papers. Strengthening vocabulary, reading comprehension, and library research skills are primary objectives. In addition, we will review grammar and mechanics rules, particularly those that writers need to know in order to form effective sentences. Students will also be given opportunities to strengthen their listening and speaking abilities.

REQUIRED (Choose one: English 11 or AP English Language and Composition)

English 11 (offered to juniors only)

1 credit

11

This year-long course focuses on a close study of American Literature: authors, historical and cultural influences, and the application of literary terms and elements. Students will read and analyze articles, poetry, autobiographies, biographies, and novels. Development of grammar and writing skills will also be a focus. Students will write paragraphs, essays, and a research paper which uses MLA format.

Advanced Placement English 11: English Language and Composition

1 credit

11

This Advanced Placement English course “engages students in becoming skilled readers of prose written in a variety of rhetorical contexts, and in becoming skilled writers who compose for a variety of purposes” (The College Board, *AP English Course Description*, p. 7). This course also focuses heavily on the use of non-fiction texts, ranging in length and complexity from short news articles to professionally-written essays, to full, book-length works, in order to teach the writing process. By the end of the year, students should adequately be able to incorporate outside information with their own ideas to create a unique argument on a given topic.

Prerequisites: 1. A grade of B or better in previous English class 2. Completion of summer reading and writing assignment that is due the first day of class. Students are required to take the AP exam.

REQUIRED (Choose one: English 12 or AP English Literature and Composition)

English 12 (offered to seniors only)

1 credit

12

This is a year-long literature and composition course which focuses on a chronological study of British literature from the Anglo-Saxon period to the present day. Students will study the literary elements of short stories, poetry, nonfiction, drama, and novels. Essays will stress critical analysis and research; thus, students will further develop their familiarity with the MLA (Modern Language Association) format for writing research papers. In addition, students will strengthen their vocabulary, reading comprehension, and library research skills. They will review grammar and mechanics rules, especially those that writers need to form effective sentences. Students will also be given opportunities to practice and develop their listening and speaking skills.

Advanced Placement English 12: English Literature and Composition

1 credit

12

This class is an introduction into the scholarly world of college-level English. It focuses on literature, meaning fiction of all types – novels, poems, short stories, plays – and from all eras – from the 14th Century to the 21st. The ultimate goal is for students to increase their critical reading and critical thinking skills; to be able to read any kind of written text, analyze it, and develop thoughtful and intelligent ideas about it, which can then be transferred into an effective written response. **1. A grade of B or better in previous English class 2. Completion of summer reading and writing assignment that is due the first day of class. Students are required to take the AP exam.**

Creative Writing

.5 Credit

10, 11, 12

This class is designed to build upon students’ knowledge and skills in writing. Students will be given topics and also be encouraged to choose their own. Drafting will be the primary activity, but discussions, peer reviews, and brainstorming are incorporated as well. Students will be completing both formal and informal written works covering stories, personal accounts, characterization, poetry, among other avenues the class chooses in which to venture.

Mass Media

.5 Credit

9, 10, 11, 12

Mass Media develops an awareness of the cultural and social impact of mass media and artistic features unique to each medium. It addresses mass media's influence on the communication process; electronic media (radio and television), printed media (newspapers and magazines), and the film as forms of entertainment and education.

MATHEMATICS

Algebra 1 (REQUIRED)

1 Credit

9, 10, 11

Algebra 1 gives the student a basic background in the real number system. This involves finding solutions of equations of one or two variables. It introduces inequalities, radicals and quadratics and the laws of exponents. The linear, quadratic, and power families of functions are introduced, with emphasis on solving and graphing each function. Algebra I also includes introductory lessons in geometry, data analysis, and probability. A graphing calculator (such as TI83 or TI84) is recommended, especially for those students who plan on enrolling in Algebra II, College Algebra or Pre-Calculus the following year. It is a requirement for graduation.

Geometry (REQUIRED)

1 Credit

9, 10, 11, 12

In Geometry, students will develop reasoning and problem solving skills as they study topics such as congruence and similarity and apply properties of lines, triangles, quadrilaterals, and circles. Students will also develop problem solving skills by using length, perimeter, area, circumference, surface areas, and volume to solve real-world problems.

Algebra 2 (REQUIRED)

1 Credit

9, 10, 11, 12

The content of Algebra 2 is organized around families of functions, including linear, quadratic, exponential, logarithmic, radical, and rational functions. As students study each family of functions, students will learn to represent them in multiple ways- as verbal descriptions, equations, tables, and graphs. Students will also learn to model real-world situations using functions in order to solve problems arising from those situations. In addition to its algebra content, Algebra 2 includes lessons on probability and data analysis as well as numerous examples and exercises involving geometry and trigonometry. A graphing calculator (such as TI83 or TI84) is required, especially for those students who plan on enrolling in College Algebra or Pre-Calculus the following year. **Prerequisite: Successful completion of Algebra I and Geometry or enrollment in Geometry and Algebra 2 concurrently**

College Algebra

.5 Credit (SMCHS)

11, 12

Dual Credit (MAT 103) 4 cr. (U of Mary)

Topics covered in Math 103 include finding solutions of linear, quadratic and higher degree equations and inequalities; graphing functions and relations; polynomial and rational functions; non-linear system of equations; complex numbers; exponential and logarithmic functions and an introduction to statistics. A graphing calculator is required. **Prerequisites: C or better in Algebra II; PreACT or ACT Math composite of 21 or higher highly recommended. Students will be required to purchase the corresponding text book.**

College Elementary Statistics

.5 Credit (SMCHS)

11, 12

Dual Credit (MAT 180) 4 cr. (U of Mary)

The study of descriptive statistics such as mean, mode, range, standard deviation, variance and histograms that describe statistical information. The study of inferential statistics such as hypotheses testing of a population mean, proportion and using a sample drawn from the population or testing to see if the sample is representative of the population being studied. A graphing calculator (such as T183 or T184) is required. **Prerequisites: C or better in Algebra II. Students will be required to purchase the corresponding text book.**

Pre-Calculus

1 Credit

11, 12

Pre-Calculus students study the real number system, functions and graphing, sequences & series, trigonometry, complex numbers, polynomial equations, polar equations, vectors & limits. This course is recommended for students intending to pursue a math or science related study in college such as medicine, architecture or engineering. Pre-Calculus is the prerequisite for Calculus. A graphing calculator (such as TI83 or TI84) is required. **Prerequisite: B or better in Algebra 2 and Geometry**

Advanced Placement Calculus AB

1 Credit (SMCHS)

11, 12

Dual Credit (MAT 209) 4 cr. (U of Mary)

Calculus students study two and three dimensional analytic geometry, functions, limits, continuity, differentiation of algebraic and trigonometric functions, development of the definite and indefinite integral, and applications problems involving integrals and derivatives. A graphing calculator (such as TI83 or TI84) is required. (Future Engineering students should consider TI89) **Prerequisite: C or better in Pre-Calculus; PreACT or ACT Math composite of 22 or higher is highly recommended. Students are required to take the AP exam regardless of dual credit enrollment. Students will be required to purchase the corresponding text book.**

MUSIC

Symphonic Band

1 credit

9, 10, 11, 12

The Symphonic Band meets daily during the school day. The class is designed to give the students an understanding and appreciation of all styles of band music. Students are expected to spend time outside of class practicing their instrument and performing at various functions scheduled for the group including pep band events, marching functions and concerts.

Wind Orchestra

1 credit

9, 10, 11, 12

The Wind Orchestra meets daily during the school day. Students are selected by audition at the discretion of the director. The class is designed to further the students' understanding and appreciation of all styles from the band repertoire. The band rehearses and performs the more challenging literature from the band repertoire. Students are expected to spend time outside of class practicing their instrument and performing at various functions scheduled for the group including pep band events, marching functions and concerts.

Jazz Ensemble I

.5 credit

9, 10, 11, 12

This class is designed to teach the students various styles of jazz, jazz history and improvisation. Students are expected to spend time outside of class practicing their instrument and performing at various functions scheduled for the group.

Prerequisite: Must be a member of either the Symphonic Band or Wind Orchestra. Jazz band meets outside of the regular school day.

Steel Drum Band

.5 credit

9, 10, 11, 12

This class is designed to teach the students how to play steel drums and other percussion instruments. Students will learn about the culture and music of Trinidad and Tobago (birthplace of steel drums) as well as develop professional performance skills and responsibilities.

Prerequisite: Must be a member of the Symphonic Band, Wind Orchestra, or Concert Choir. Steel drum band meets outside of the regular school day.

Concert Choir

1 credit

9, 10, 11, 12

Concert Choir exists to cultivate, educate and nurture the musical talent and creativity of our students. The students will accomplish this through performance excellence, music literacy, history and exposure to a variety of musical styles and genres. Choral music is an incredible avenue toward building better musicians and better people. Students are able to develop their self-esteem and ability to express themselves. Performances and a minimal amount of out-of-school learning are part of the course grade. These activities are integral elements that support and extend learning in the classroom. Private voice lessons, festival experiences, and honor choir opportunities are available but not required for participants. Homework (practicing) will vary with the individual.

Jazz Choir

.5 credit

9, 10, 11, 12

Jazz Choir, St. Mary's Blues, is an auditioned group designed to emphasize singing techniques, performance of vocal jazz choral literature, a cappella pop, and microphone technique using sound systems. This course will also include creating student arrangements of popular music. The ensemble size will be determined by quality of auditions and resources available. It is open to grades 9-12, soprano, alto, tenor, bass, and vocal percussion.

Ensemble members must be part of the concert choir. The jazz choir performs in the community, at various festivals, formal concert performances, and records in studio alternating years. There is a tradition of being flexible with student athletes & schedules. **Jazz choir meets outside the regular school day allowing additional room for other coursework.**

RELIGIOUS STUDIES

Grade 9

Introduction to Catholicism (REQUIRED)

1 credit

This class introduces the main components of the Catholic Faith. Emphasis will be placed upon such things as the meaning of life, virtue, prayer, the mystery of the Blessed Trinity, Divine Revelation in Scripture and Tradition, the Primacy of St. Peter and the Church, the Blessed Virgin Mary, the necessity of the Sacraments and Commandments, and the meaning of true freedom in Christ. In addition, students will learn about the negative effects which illegal drugs have on individuals and society.

Grade 10

Old Testament (REQUIRED)

.5 credit

Old Testament is offered during one semester of sophomore year and provides an in-depth study of the major people, events and religious themes of the Hebrew Scriptures. The history of God's revelation and covenant with the Hebrew people will be examined from Creation to the coming of the Savior, Jesus Christ.

Our Moral Life in Christ I (REQUIRED)

.5 credit

This course is offered the opposite semester of sophomore year and covers the characteristics of Christian Morality so that students gain deeper insight into the science of Moral Theology. The course will include an examination of the following: the sources of Catholic Moral Theology, the Christian Concept of Man, true freedom vs. false freedom, and the formation of a healthy conscience. Also, the students will examine the relationship between Eternal and Natural Law, the definitions of sin, and the major moral issues of our time.

Grade 11

New Testament (REQUIRED)

.5 credit

New Testament is offered during one semester of junior year. This course immerses the student in the sacred texts, which form the foundation of the Christian faith. The teachings, life, and history of Jesus Christ will be examined, including His divine and human natures and other topics of Christology.

Our Moral Life in Christ II (REQUIRED)

.5 credit

Offered the opposite semester of junior year, this course aims to equip students to think about issues of society and social justice. Emphasis is placed upon critical thinking skills, the mysteries of personal and social evil, the principles of Catholic social teaching, and the power of faith.

Grade 12

(REQUIRED-CHOOSE TWO FROM THESE FIVE ELECTIVES)

Church History

.5 credit

The development of the Church from New Testament times to the present will be studied and analyzed. The Apostolic Age, Church Fathers, Crusades, Inquisition, Renaissance, Reformation, Age of Enlightenment, Vatican II, and the Church in the third millennium will be the main topics of discussion in this course.

Marriage & Family Living

.5 credit

This course is a study of adult living as it relates to the sacrament and vocation of Christian Marriage. Students explore topics such as Pope John Paul II's *Theology of the Body*, dating, spousal selection, and building a strong and faithful marriage. Family and parenting issues are also addressed. The teachings of the Catholic Church as they relate to these issues will serve as the primary reference for both study and discussion.

The Catholic Disciple

.5 credit (SMCHS)

Dual Credit (THE 104) 3 cr. (U of Mary)

This course of intensive faith formation will feature an open discussion about Catholic life and living examined in light of the responsibilities of Christian discipleship.

Catholicism and World Religions

.5 credit

This course is a survey of the major world religions examined in the light of the Roman Catholic Faith. The course includes the religions of Judaism, Islam, Hinduism, Buddhism, Shintoism, Confucianism, Taoism, Sikhism, Jainism, and the Indigenous religions. The "less known" religions may also be discussed and analyzed. The course will study the historical origins of each religion, including the theologies, rituals, culture, and historical interactions of each respective religion. The Catholic Church's understanding of ecumenism and interreligious dialogue will serve as the primary reference for both study and discussion.

Rome Study Pilgrimage/Independent Study

.5 credit (SMCHS)

Dual Credit 3 cr. (U of Mary)

Those who participate in the Rome Study Pilgrimage have the option to engage in an independent study. Before signing up for this independent study, students must meet with the instructor to discuss the requirements and meeting times. In this course students will participate in the Rome Pilgrimage and will complete course work that will include but is not limited to: the Rise of the Roman Empire, the Apostolic Age, Persecution of Early Christianity, and the Church Fathers. **To receive the dual credit students must complete requirements set forth from both the University of Mary and SMCHS.**

SCIENCE

Physical Science (REQUIRED)

1 credit

9

Physical Science serves as the basis for the study of the advanced sciences of Chemistry and Physics. The student studies the concepts of matter, energy, motion, work, physical laws, the periodic table, chemical bonding, and chemical equations.

Biology (REQUIRED)

1 credit

10

Biology gives the student a fundamental understanding of the living world. Emphasis is placed on cell structure and function, genetics, evolutionary relationship, microbiology, plant biology, invertebrate and vertebrate anatomy and physiology, and the systems of the human body.

Ecology

1 credit

10, 11, 12

Environmental Science examines the mutual relationships between organisms and their environment. In studying the interrelationships among plants, animals, and humans, this course usually covers the following subjects: photosynthesis, recycling and regeneration, ecosystems, population and growth studies, pollution, and conservation of natural resources. **Prerequisite: Biology**

Chemistry

1 credit

10, 11, 12

This course is designed to prepare the college-bound student for college level chemistry. It is based on a strong theoretical and experimental background of the subject matter. Emphasis is placed on classification of matter, atomic theory, periodic table, chemical equations, and the mathematics of chemical reactions, gas laws, chemical equilibrium, and acid/base chemistry. **Prerequisite: Currently enrolled in/or completion of Algebra 2 while either maintaining a B or better or have achieved a B or better.**

Human Anatomy and Physiology

1 credit

11, 12

Human Anatomy and Physiology studies tissue structure and function, and extensive structure and function of most body systems with corresponding laboratory work. **Prerequisite: B or better in Biology**

Physics

1 credit

11, 12

This course strikes a realistic balance between theory and practical applications. It prepares the college bound student for entry into more advanced science courses. Emphasis is placed on hands-on engineering, the laws of motion, energy, behavior of fluids, sound, and electricity. **Prerequisite: B or better in Algebra 2**

ADVANCED PLACEMENT PHYSICS 1: Algebra-Based

(NMSI Online course)

1 credit—Full year

11, 12

Full year

The AP Physics 1 course is an algebra-based introductory college-level physics. Students cultivate an understanding of Physics through inquiry-based investigations as they explore these topics: kinematics; dynamics; circular motion and gravitation; energy; momentum; simple harmonic motion; torque and rotational motion; electric charge and electric force; DC circuits; and mechanical waves and sound. **Students are required to take the AP Exam.** **Prerequisite: Successful completion or current enrollment in Algebra II.**

ADVANCED PLACEMENT BIOLOGY

(NMSI Online course)

1 credit—Full year

11, 12

The course is based on four Big Ideas, which encompass core scientific principles, theories, and processes that cut across traditional boundaries and provide a broad way of thinking about living organisms and biological systems. Students establish lines of evidence and use them to develop and refine testable explanations and predictions of natural phenomena. Focusing on these disciplinary practices enables teachers to use the principles of scientific inquiry to promote a more engaging and rigorous experience for AP Biology students. Twenty-five percent of instructional time is devoted to hands-on laboratory work with an emphasis on inquiry-based investigations. Investigations require students to ask questions, make observations and predictions, design experiments, analyze data, and construct arguments in a collaborative setting, where they direct and monitor their process. **Students are required to take the AP Exam.** **Prerequisite: Successful completion of one year of Biology.**

ADVANCED PLACEMENT CHEMISTRY

(NMSI Online course)

1 credit—Full year

11, 12

The AP Chemistry course provides students with a college-level foundation to support future advanced course work in chemistry. Students cultivate their understanding of chemistry through inquiry based investigations, as they explore topics such as: atomic structure, inter molecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium. This course requires that 25 percent of the instructional time provides students with opportunities to engage in laboratory investigations. This includes a minimum of 16 hands-on labs, at least six of which are inquiry based. **Students are required to take the AP Exam.** **Prerequisite: Successful completion of one year of Chemistry and Algebra II.**

SOCIAL STUDIES

World History (REQUIRED)

1 credit

9

World History provides the student with a chronological study of civilization from ancient times to the 1600's. First semester covers the prehistoric times to the four early river valley civilizations of Egypt, Mesopotamia, Indus Valley and China, and their impact on the world. The second semester covers the Greek and Roman Empires, European Middle Ages, the Reformation, the Renaissance up to the time of European exploration of North and South America.

REQUIRED (Choose one: U.S History I & II or AP U.S History)

U.S. History I & II

1 credit

10, 11, 12

U.S. History I provides the student with a chronological study of the United States and its ideals. U.S. History I recaps the creation of the Nation, the Revolution and Constitution. The heightened focus will be on the key reasons that led to the Civil War and the start of Reconstruction through World War I.

U.S. History II will begin with focusing on America's rise to globalism, and the philosophical economic changes leading up to the Great Depression. Additionally, students will cover the U.S. involvement in World War II, the Cold War, the Civil Rights Movement, and key events that lead to a diminished trust of our government. Finally, the students will gain in-depth focus on understanding the crucial events of the past 20 years that have most impacted their lives and America today.

Advanced Placement U.S. History

1 credit

10, 11, 12

The Advanced Placement (AP) U.S. History course will focus on the development of historical thinking skills and a deeper understanding of America's identity, peopling, and role in the world between 1491 and the present. The course will be reading intensive, affording students the opportunity to explore primary source documents, in addition to secondary source materials. Acting as amateur historians, students will work to develop college level writing skills and become fluent in the historical research process. After successful completion of this course, students may take the AP U.S. History exam in May for college credit. **Prerequisites: Grade of an A or B in World History. Students are required to take the AP exam.**

American Government (REQUIRED)**.5 credit****10, 11, 12**

This course will study the basic organization and functions of the U.S. Government at the national, state and local levels. Students will examine the relevance of the U.S. Constitution, the election process, the role of political parties, and the justice system in their lives today.

Economics (REQUIRED)**.5 credit****10, 11, 12**

This course is intended to deepen student understanding of economic problems and institutions of the nation and the world in which they live. Students will apply fundamental economic concepts to understand national and global economic issues. The course will study basic rules of supply and demand, forms of business, types of global economic systems, government finances, and how economics relates to history and politics. Finally, this course will focus on understanding key matters of personal finance to assist student to make educated economic decisions.

Introduction to Psychology**.5 credit****9, 10, 11, 12**

Psychology introduces the student to the science of human behavior. Specific emphasis will be placed on the study of human development, learning, research, emotion, the brain, and abnormal behavior.

Advanced Placement Psychology**1 credit****11, 12**

The Advanced Placement (AP) Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, history, and phenomena associated with each of the major sub fields within psychology. They also learn about the methods psychologists use in their science and practice. After successful completion of this course, students may take the AP Psychology exam in May for college credit. **Students are required to take the AP exam.**

BISMARCK PUBLIC SCHOOLS CAREER ACADEMY & TECHNICAL CENTER

Career and Technical Education provides a comprehensive but flexible program that is dedicated to quality through the use of current technical equipment, materials and instruction. Obtaining experience through a career and technical program is an asset to most students. The skills the high school students acquire provide them with the knowledge and skills to enter the job market at an entry level. Courses are for students in grade 10, 11 and 12 and take place on the Career & Technical Education Campus. Enrollment will be dependent on individual student schedules and course enrollment availability.

<u>AGRICULTURE</u>	<u>MANUFACTURING</u>
<ul style="list-style-type: none"> • Applied Mechanics 	<ul style="list-style-type: none"> • Welding I
<ul style="list-style-type: none"> • Botany/Horticulture 	<ul style="list-style-type: none"> • Welding II*
<ul style="list-style-type: none"> • Agri-Science Technology 	<u>TRANSPORTATION</u>
<ul style="list-style-type: none"> • Introduction to Agriculture 	<ul style="list-style-type: none"> • Automotive Technology I
<u>ARCHITECTURE</u>	<ul style="list-style-type: none"> • Automotive Technology II*
<ul style="list-style-type: none"> • Building Systems 	<ul style="list-style-type: none"> • Auto Collision
<ul style="list-style-type: none"> • Architectural Design 	<ul style="list-style-type: none"> • Auto Collision II*
<ul style="list-style-type: none"> • Carpentry—Framing 	<ul style="list-style-type: none"> • Aviation I
<ul style="list-style-type: none"> • Carpentry—Interior 	<ul style="list-style-type: none"> • Aviation II*
<u>HEALTH SCIENCE</u>	<u>SCIENCE, TECHNOLOGY, ENGINEERING & MATH</u>
<ul style="list-style-type: none"> • Medical Related Careers II* 	<ul style="list-style-type: none"> • AC Electronics*
<ul style="list-style-type: none"> • Certified Nursing Assistant* 	<ul style="list-style-type: none"> • Analog Electronics* (II)
<ul style="list-style-type: none"> • Prevention and Care* 	<ul style="list-style-type: none"> • Creative Engineering I
<u>ART</u>	<ul style="list-style-type: none"> • Creative Engineering II
<ul style="list-style-type: none"> • Digital Art & Photography* 	<ul style="list-style-type: none"> • DC Electronics*
<ul style="list-style-type: none"> • Graphic Design 	<ul style="list-style-type: none"> • Digital Electronics* (III)
<u>INFORMATION TECHNOLOGY</u>	<ul style="list-style-type: none"> • Energy and Power Production
<ul style="list-style-type: none"> • Computer Hardware 	<ul style="list-style-type: none"> • Foundations of Technology
<ul style="list-style-type: none"> • Intro to Computer Software 	<ul style="list-style-type: none"> • Robotics
<ul style="list-style-type: none"> • Networking 	<ul style="list-style-type: none"> • Tech 3D

Course Descriptions for the courses listed above are available at <https://www.bismarckschools.org/Page/2775>

CENTRAL REGION AREA CAREER AND TECHNICAL CENTER

The CRACTC delivers CTE courses to students utilizing online virtual classroom environments. Our goal is to provide opportunities for students to enroll in courses in specific career clusters in order to complete a program of study in these career pathways. CTE concentrators can qualify for the ND State Scholarship Program – see your high school counselor for details.

Please note: Registering for an CRACTC class is a commitment to enroll. **Lock in date is May 8, 2020—no drops will be allowed after that point.** The CRACTC hires teachers and facilitates sections based on pre-registration. Administrative approval is required for a class to be dropped after May 8. The library will be the location for CRACTC classes. Regular attendance and grading will take place.

Class	Grade Level	Time Frame
Introduction to Drones*	11, 12	Fall Semester
Drones I*	12	Spring Semester
Family and Consumer Science	9, 10, 11, 12	Full Year
Parenting	10, 11, 12	Fall Semester
Independent Living	10, 11, 12	Fall or Spring Semester
Child Development	10, 11, 12	Spring Semester
Family Living	10, 11, 12	Spring Semester
Exploring the Teaching Profession	10, 11, 12	Full Year
Housing and Interior Design	10, 11, 12	Fall Semester
Graphic Design & Photography I	10, 11, 12	Full Year
Graphic Design & Photography II	11, 12	Full Year
Medical Related Careers I	10, 11, 12	Full Year
Advanced Medical Careers*	11, 12	Full Year
Medical Terminology	11, 12	Fall or Spring Semester
Introduction to Medical Responders	11, 12	Full Year
Intro to IT	9, 10, 11, 12	Fall Semester
IT Essentials*	9, 10, 11, 12	Spring Semester
Introduction to Cybersecurity	10, 11, 12	Fall Semester
Cyber Security*	10, 11, 12	Spring Semester
Coding with Python	10, 11, 12	Fall Semester
Coding with JAVA	10, 11, 12	Spring Semester
Video Game Design	9, 10, 11, 12	Full Year
Introduction to Networking	9, 10, 11, 12	Fall or Spring Semester
Network Fundamentals I	10, 11, 12	Full Year
Marketing	10, 11, 12	Full Year
Principles of Finance	9, 10, 11, 12	Fall Semester
Sports & Entertainment Marketing	10, 11, 12	Fall Semester
Social Media Marketing	9, 10, 11, 12	Spring Semester
Principles of Entrepreneurship	9, 10, 11, 12	Spring Semester
STEM Seminar I	9, 10, 11, 12	Fall Semester
STEM Seminar II	9, 10, 11, 12	Spring Semester
Foundations of Engineering I*	9, 10, 11, 12	Fall Semester
Foundations of Engineering II*	9, 10, 11, 12	Spring Semester

*Classes have a prerequisite

Course Descriptions for the courses listed above are available at <https://www.cRACTC.org/courses>