

LIBERTY CHARTER HIGH SCHOOL

2011-2012 Course Catalogue

MATHAMATICS

Algebra 1

Course Overview: Algebra 1 is a ground level course, which begins students on their math experience. The course covers topics introduced in a pre-algebra course with more depth and application. It prepares students to study advanced topics such as Geometry, Algebra 2 and College math. This is a critical time for students to strengthen their math skills in such a way that the skills they learn become habit.

Algebra 2

Prerequisite: Successful completion of Algebra 1 or Instructor Approval.

Course Overview: Algebra 2 is a full-year course intended to prepare students for college level math courses. This course is a college-prep level course and will be taught with that level of rigor. Students will study introductory topics in trigonometry such as identities and other special formulas. Problem solving will be a point of emphasis throughout the course. Linear, quadratic, slope, polynomial, exponential, and logarithmic functions will also be included as well as polynomial and rational expressions and simplifying irrational and complex numbers.

Geometry

Prerequisite: Successful completion of Algebra 1 or Instructor Approval. Open to grades 9-12.

Course Overview: Geometry is a full-year course intended to prepare students for college level math courses. This course is a college-prep level course and will be taught with that level of rigor. Students will be introduced to topics in trigonometry and other special formulas. Problem solving will be a point of emphasis throughout the course. The study of triangles, similarity, proof, quadrilaterals, circles, area, surface area, coordinate geometry and volume will also be included

***College Algebra**

Prerequisite: Successful completion of Geometry and Algebra 2 or Instructor Approval. Concurrent credit enrollment requires a score of a least 12 on the NNU Math pretest. Open to grades 10-12. Sophomores must have permission from NNU to enroll in concurrent credit.

Course Description: Pre-Calculus is a full-year course intended to prepare students for calculus. This course is a college level course and will be taught with that level of rigor. This means that students will assume more responsibility for their learning. While not all students will be enrolled in the concurrent credit program through NNU, they will still be held to that standard. Students will study advanced topics

in algebra, functions and systems of functions, and other special formulas. Linear, quadratic, slope, polynomial, exponential, and logarithmic functions will be included. Problem solving will be a point of emphasis throughout the course.

***College Trigonometry**

Prerequisite: Successful completion College Algebra MA 1300 or Instructor Approval. Open to grades 10-12. Sophomores must have permission from NNU to enroll in concurrent credit.

Course Description: College Trigonometry is a semester course. This course is a college level course and will be taught with that level of rigor. While not all students will be enrolled in the concurrent credit program through NNU, they will still be held to that standard. Students will study advanced topics in trigonometry such as identities, circular functions, and other special formulas. Problem solving will be a point of emphasis throughout the course.

***Calculus I - Math2510**

Prerequisites: College math with a grade of C or better (MA130 &MA140), a score of 12 or higher on the placement test for this course or an ACT score of 28, or instructor's permission.

Course Description: Calculus I is a yearlong course covering the basic concepts of calculus. These concepts include recognizing that calculus is the study of rates of change, the derivative, the integral and their applications. Topics covered: Limits, derivatives, integration, and applications of the derivative, applications of integrals, integration techniques, logarithmic, exponential, trig and inverse trig functions.

***College Statistics**

Prerequisite: completion of Geometry and Algebra 2 with a preference for those that have completed College Algebra.

Course Description: College Statistics involves the study of four main areas: exploratory analysis; planning a study; probability; and statistical inference. Upon entering this course students are expected to have mathematical maturity and quantitative reasoning ability which is usually demonstrated by having completed Algebra II. Mathematical maturity could be defined as a complete working knowledge of the graphical and algebraic concepts through Math Analysis, including linear, quadratic, exponential, and logarithmic functions. In contrast to many math classes, this course will require reading of the text. This College Statistics course is taught as an activity-based course in which students actively construct their own understanding of the concepts and techniques of statistics.

SCIENCE

Physical Science

Prerequisites: This is a Freshman required science course.

Course Description: Students will be equipped with the basic language and skills to successfully meet the benchmarks for introductory physical science.

Course Objectives: By the end of the course, successful students will:

1. Understand and be able to apply the principles of basic physical science
2. Know and correctly use the standard scientific symbols and notations of physical science.
3. Know the basic principals of Newtonian physics, the basic formulas, and the practical application to real world problems such as distance/accelerations problems, and gravitational attractions.
4. Know and understand the basic principals of chemistry, the states of matter and the change of matter, chemical reactions and products of reactions.
5. Understand the basic relationship between physics and chemistry.
6. Will be able to use scientific reasoning, including both inductive and deductive reasoning, and the scientific method to solve problems.
7. Will be able to solve problems involving chemistry and physics.

Biology

Prerequisites: This is a sophomore required science course.

Course Description: Biology is the study of the nature and characteristics of living things. Biology will make use of direct instruction lectures, laboratory exercises and activities to develop scientific concepts, skills, and attitudes. You will begin your study at the molecular level and advance through various aspects of the ecological community. The five fundamental Biological concepts of cellular biology, genetics, ecology, evolution and physiology will be covered in this two-semester course which will count toward your graduation requirements in science. The scientific process, laboratory skills and writing skills are emphasized along with biology's connections to other scientific disciplines and current biological issues. Students will be expected to understand and follow the laboratory procedures and instructions to ensure safety, and will be required to keep a laboratory book in the proper format.

***Human Biology: NNU Concurrent Credit Biology**

Prerequisites: A grade of "B" or better in sophomore biology OR teacher recommendation

Course Description: This course is the high school equivalent to Biology 1060 lecture and lab offered to non-biology majors at NNU. Students enrolled in the concurrent credit program will receive college credit from the University upon satisfactory completion of the year-long course. This course is designed to introduce students to the basics of human anatomy and physiology. Students will investigate the various structures and functions of body systems through direct instruction, demonstrations, hands-on laboratory experimentation and dissections, and correlated readings. Emphasis will be placed on regulation and homeostasis within and between systems, along with common diseases and treatments relating to dysfunctions of the systems. To ensure success, students are expected to spend at least 30 minutes to one hour per day reviewing, reading, or studying material from the course. Students will be expected to understand and follow the laboratory procedures and instructions to ensure safety, and will be required to keep a laboratory book in the proper format.

Chemistry

Prerequisites: A grade of “C” or better in Algebra 1 OR teacher recommendation; successful completion of Physical Science.

Course Description: Chemistry is the study of molecules and their interactions. This is a two-semester course that will count toward your graduation requirements in science. Chemistry will make use of direct instruction lectures, problem solving, laboratory exercises and demonstrations to develop scientific concepts, skills, and attitudes. This course will focus on the major concepts in Chemistry as specified in the standards developed by the Idaho Board of Education, including metrics, properties and changes, chemical reactions and equations, stoichiometry, acids & bases, and kinetics. Chemistry relies heavily on math, analytical skills, and problem solving. It also requires a fair amount of memorization. Students will be expected to understand and follow the laboratory procedures and instructions to ensure safety, and will be required to keep a laboratory book in the proper format.

*College Physics

Course prerequisite: Successful completion of Physical Science and Geometry; semester 1 is a prerequisite for semester 2.

Course Description: Students will develop appreciation and familiarity with basic physics concepts which will give them a new perspective for critical and analytical thinking and lead to continued learning.

Course objectives: By the end of the course, successful students will:

1. Understand and be able to apply the principles of basic physics.
2. Know and correctly use the standard scientific symbols and notations of physics
3. Know the principles of Newtonian physics, the basic formulas, and the practical application to real world problems such as distance/ accelerations problems, and gravitational attractions.
4. Understand the basic relationship between physics and other disciplines.
5. Will be able to use scientific reasoning, including both inductive and deductive reasoning, and the scientific method to solve problems.
6. Will be able to solve problems involving the fields of mechanics, heat, light, electromagnetism, and particle physics.

Speech

College Speech

Prerequisites: Junior or Senior standing –Seniors have preference.

Course Description: As stated in the Northwest Nazarene University course catalog, the Public Speaking class provides “an introduction to verbal communication in groups, listening and public speaking. Emphasis will be placed on [public] speaking, including delivery issues, speech construction, audience connection and the communication process.” Students will present a minimum of four prepared

speeches to their classmates and receive detailed feedback from the instructor and fellow students. (2 college credits, 1 high school credit)

Language Arts

Freshman English

Course description: Freshman English introduces students to the major genres, themes, and approaches that they will encounter throughout high school language arts. Activities, assignments, and thematic units will encourage students to make meaningful connections and to extend understanding beyond the text. They will read a balance of contemporary and classic works, short stories, essays, novels, dramas, and nonfiction that encourages them to look at the world from multiple perspectives. Students will improve their writing, reading, speaking, listening, and study skills.

Sophomore English

Course description: English 10 is designed to sharpen student's research, reading, writing, listening, analytical, critical thinking and speaking skills. Students begin to explore universal ideas through the context of historical events combined with readings in drama, poetry, short stories, and the novel. They will write for a variety of purposes and audiences. Course content is meant to prepare students to master the ISAT test and to meet the Idaho Language Arts Content Standards.

Junior English

Course description: Students will explore what it means to be an American through the study of American thought, literature, and published letters. Students will develop an awareness of the historical context of American literature and examine conflicts such as: individualism vs. conformity, materialism vs. spirituality, and personal desires vs. social responsibility. Students will explore what constitutes American values and culture, and how they differ by region and how they have metamorphosed throughout our history.

Senior English

Course description: The course develops students as skilled readers and writers and exposes them to a variety of prose written in many periods, disciplines, and contexts. Students taking the course gain an awareness of the importance of purpose, audience, and subject when approaching writing. Narrative strategies are explored. The course affords students the opportunity to read and write in a variety of forms—narrative, expository, creative, and argumentative. Students gain mastery in the process of drafting, revising, editing, and polishing a piece of work. They learn to demonstrate working knowledge of parts of speech, structural patterns, awareness of connotation, and shades of meaning. They learn to synthesize material from diverse sources and to document formal APA research papers. The culmination of the class is the completion of the Senior Research Experience.

College English Composition

Prerequisites: Open to seniors only.

Course Description: Adapted from the Northwest Nazarene University syllabus for English Composition: Regular reading and effective writing should be a part of every educated person's professional and personal life. Communicating effectively through formal, written English is a skill which takes time and practice to develop. In the English Composition class, students will practice this skill by reading non-fiction works which demonstrate effective formal writing, writing and editing their own and other students' essays, and participating in analysis activities and discussion in class. Second semester will include completion of the Senior project, which is a graduation requirement of both Liberty and Victory high schools and the State of Idaho. (3 college credits, 2 high school credits)

Foreign Language**

French I

Prerequisites: None

Course Description: French I is a yearlong introductory French course. Students learn the building blocks of foreign language learning and communication through reading, writing, listening, and speaking French. This course is geared towards students with limited or no French language proficiency. Students will experience a curriculum that establishes a firm vocabulary and grammar base for future French classes.

French II

Prerequisites: French I or a minimum of an 80% on the French II Entrance Exam

Course Description: French II is a yearlong course that continues the development of vocabulary and grammar through exercises in reading, writing, listening to, and speaking French. French II is a college level French course, giving students with at least sophomore status the opportunity to earn four (4) college credits upon successful completion of the second semester of the course.

French III

Prerequisites: French II. French III is available every other year alternating with Spanish IV.

Course Description: French III is a yearlong college level French course. In this course, students begin to transition from a heavily vocabulary and grammar based curriculum towards functional usage of their knowledge base through classroom activities, exercises and applied settings. Students focus on reading, writing, listening to, and speaking French. French III is a college level French course, giving students the opportunity to earn four (4) college credits upon successful completion of the second semester of the course.

Spanish I

Prerequisites: None

Course Description: Spanish I is a yearlong introductory Spanish course. Students learn the building blocks of foreign language learning and communication through reading, writing, listening, and speaking Spanish. This course is geared towards students with limited or no Spanish language proficiency. Students will experience a curriculum that establishes a firm vocabulary and grammar base for future Spanish classes.

SPANISH II

Prerequisites: Spanish I or a minimum of an 80% on the Spanish II Entrance Exam

Course Description: Spanish II is a yearlong course that continues the development of vocabulary and grammar through exercises in reading, writing, listening to, and speaking Spanish. Spanish II is a college level Spanish course, giving students with at least sophomore status the opportunity to earn four (4) college credits upon successful completion of the second semester of the course.

SPANISH III

Prerequisites: Spanish II

Course Description: Spanish III is a yearlong college level Spanish course. In this course, students begin to transition from a heavily vocabulary and grammar based curriculum towards functional usage of their knowledge base through classroom activities, exercises and applied settings. Students focus on reading, writing, listening to, and speaking Spanish. Spanish III is a college level Spanish course, giving students the opportunity to earn four (4) college credits upon successful completion of the second semester of the course.

SPANISH IV

Prerequisites: Spanish III. Spanish IV is available every other year alternating with French III.

Course Description: Spanish IV is a college level applied topics course in Spanish. It is comprised of two semester long courses in applied studies. The first semester is a Spanish composition and literature class. In this course, students read extensively in the Spanish language as well as develop the skills necessary to write proficiently in a second language. Applied Spanish is stressed and most instruction is delivered in the target language. The second semester has an oral production focus with emphasis placed on conversation, speech, and debate. Students are assessed on their oral production of Spanish as they develop proficiency skills in conversational settings, formal speaking and formal debate. Applied Spanish is stressed and most instruction is delivered in the target language. As a college level class, students are eligible for four (4) college credits upon successful completion of each semester of this course, for a possible total of eight (8) college credits.

Social Sciences

Geography

Prerequisites:

Course Description: Geography is a one-semester class that examines the political, economic and cultural aspects of the major continent's with specific case-studies of distinct cultures for each major land mass. This class also covers the physical geography, biomes, climate and weather patterns found around the globe. There is also special attention to the interconnectedness of the modern day global arrangement.

Western Civilization

Prerequisites: Open to students in 10th – 12th grades.

Course Description: Students will examine the roots of Western civilization, explore the heritage that comprises the Western experience, and trace the development of those basic themes that constitute Western culture. First semester studies focus on the classical and medieval antecedents to modern Europe and culminate with the emergence of a distinctive, European civilization. Second semester includes thematic units that examine the core components of modern, Western culture.

United States History

Prerequisites: This is a required junior course.

Course Description: First quarter is a study of America's history from European exploration through the Election of 1800, with emphasis on the causes and results of the American Revolution and the creation and implementation of the U.S. Constitution. Second quarter includes a study of the nation's political and economic expansion, reform movements, sectional divisions, the Civil War and Reconstruction, and themes associated with the Gilded Age—industrialization, urbanization, immigration, and the closing of the American West. Third quarter includes a survey of U.S. history from 1900 to 1939. Fourth quarter opens with a study of the Second World War and concludes with an analysis of contemporary issues and events.

American Government

Prerequisites: This is a required senior course.

Course Description: This course is a study of the American political system and how it functions. American Government examines the fundamental political institutions of our nation and the governmental operations of the United States, both at home and abroad. Special emphasis is given to the role of citizens at the local, state, and national levels.

Economics

Prerequisites: This is a required senior course.

Course Description: This course examines the basic theories, structures, and operations of economics with special focus on the American free enterprise system. The study of economics includes the evolution of democracy, economic fundamentals and institutions, concepts of money, influences on economic systems, and personal finance.

Sociology

Prerequisites: Open to grades 10th – 12th.

Course Description: Sociology is the systematic study of human society. Therefore, we will be looking at the daily actions of human beings, how we socialize with one another, cultural patterns, and what happens when human beings break the norms that society developed over time.

College Introduction to Psychology

Prerequisites: Open to grades 11th – 12th.

Course Description: Course introduces the field of psychology and its basic concepts, theories, research methods, and contributions to the understanding of human behavior. Topics include the nervous system, perception, motivation, learning and memory, social behavior, personality, developmental, and clinical psychology. The past and current theories and contributions of major psychologists are explored. Students will complete in a multi-high school Psychology Research forum hosted by NNU.

College Political Science

Prerequisites: Open to grades 10th – 12th.

Course Description: Political Science 101 is a one-semester class looking at the development of our United States Government from its ideological foundations to current issues facing American citizens. As a class we will travel beyond how our government simply works by attempting to look at the strengths and weaknesses of our system, the rights and responsibilities afford to us by our constitution and how our state fits in with our federal system.

Business

*Introduction to Business

Prerequisites: None

Course Description: The general purpose of the Business Principles and Management course is to provide a clear understanding of the characteristics, organization, operations, and management of business. This course is aimed at students who want a sound foundation of the business world as they prepare for business or other careers.

*Principles of Accounting 1

Prerequisites: Open to 10th – 12th grades.

Course Description: This first-year accounting course is a comprehensive investigation into the study of basic accounting principles. Content starts with the basic accounting cycle for sole proprietors and moves into merchandising corporations. This course includes accounting for payroll, and special procedures such as depreciation of plant equipment, uncollectible accounts receivable, inventories, and notes payable and receivable

Technology

***Computer Applications I and II**

Prerequisites: None

Course Description: This course is a practical application course in which students analyze, synthesize, and evaluate school, work, or home information using Microsoft Office 2007 (Word, Excel, PowerPoint). Students will create, design, and produce professional documents using word processing software, process, manipulate, and represent numeric data using spreadsheet software, and use presentation software to design and create informational and motivational slide shows that contain hyperlinks, tables, images, and animation.

Web Design

Prerequisites:

Course Description:

Multi-Media

Prerequisites:

Course Description:

Computer Programming

Prerequisites:

Course Description:

College Prep Computers

Prerequisites:

Course Description:

Life Skills

Human Resources

Prerequisites:

Course Description:

***Career Studies**

Prerequisites:

Course Description:

***Life Skills**

Prerequisites:

Course Description:

***College Leadership**

Prerequisites:

Course Description:

***College Prep**

Prerequisites:

Course Description:

Music**

Choir

Prerequisites:

Course Description:

Advanced Jazz

Prerequisites:

Course Description:

Band

Prerequisites:

Course Description:

Art**

***Introduction to Digital Design**

Prerequisites:

Course Description:

***Digital Design 2**

Prerequisites:

Course Description:

Drama**

Drama

Prerequisites:

Course Description:

Play Production

Prerequisites:

Course Description:

*Courses offered for dual enrollment at Victory Charter High School. Victory students have first priority. Liberty student are allowed to dual enroll as space permits.

**Qualify as humanities credits. Liberty students are required to take 6 humanities credits for graduation. Students must take two years of foreign language plus 2 additional humanities credits as designated above.