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## **Academic Course Guide 2011-2012**

### **English Graduation Requirement: 4 Years**

#### **English 9**

This course will help students build writing and critical thinking skills. Students will obtain a foundation in composition and literary analysis while building vocabulary and increasing understanding of grammatical concepts. This course provides a survey of literature including drama, poetry and prose.

#### **Honors English 9**

This course is intended for the highly motivated student committed to academic excellence, and is best suited for students who have excelled in previous Language Arts classes. This course will help students build reading, writing and critical thinking skills. Students will obtain a foundation in composition and literary analysis while building vocabulary and increasing understanding of grammatical concepts. Honors English 9 is designed to give students a foundational survey of literature including drama, poetry and prose. It provides a faster pace as well as greater depth of study, with considerable attention given to higher level critical thinking in preparation for Honors English 10 and upper level honors courses.

**Prerequisite:** Administrative and/or Teacher Recommendation

#### **English 10**

This course provides an opportunity to understand and appreciate literature through a variety of reading, writing and viewing experiences. This course will develop and improve critical and analytic reading and viewing skills, writing skills (research, analytic, and rhetorical), and critical thinking skills.

#### **Honors English 10**

This course is intended for the highly motivated student committed to academic excellence, and is best suited for students who have excelled in previous Language Arts classes. This course will develop and improve critical and analytic reading and viewing skills, writing skills (research, analytic, and rhetorical), and critical thinking skills. To fulfill honors requirements students take the literature to more advanced and thoughtful arenas, and spend time learning about critical theory and applying critical lenses. Honors students also complete an in depth study of a relevant author and literary criticism in preparation for College in the Schools classes.

**Prerequisite:** Administrative and/or Teacher Recommendation

**English 11**

English 11 focuses on the study of literature of diverse nations and cultures (including many multicultural texts from around the world). Students will read works from around the world and use them as the starting place for gaining a broad understanding of points of view beyond their own. The second semester is a broad survey course in the literatures of Britain and its colonies. The course emphasizes reading, analyzing, discussing, and writing with particular emphasis placed on applying critical concepts in the understanding and interpretation of other countries' literature. Students will also work to further their understandings the English language and developing writing skills.

**Honors English 11**

(Semester 1 Only)

This course is designed for the highly motivated student and is taken prior to CIS Public Speaking. This course will examine the convergence of various "texts" (literature, visual and performing art, media, etc) using critical analysis and literary theory. Students will investigate how culture shapes attitudes, beliefs, and a sense of what is right, logical, or natural. Students will seek to understand how the "rhetoric" of culture interacts with systems of power in the current world.

**Prerequisites:** Junior; Teacher Recommendation; Application Process

**Capstone English**

Capstone English is a senior level course that builds on skills and knowledge acquired in previous courses while also emphasizing oral and written communication skills. Capstone English will focus on a study of literature such as short stories, poetry, drama, nonfiction, and the novel, reviewing and more deeply applying narrative elements and poetic devices to various texts. Students will more broadly understand the conventions of writing and of literary analysis by utilizing a variety of sources, both print and electronic, in their synthesis and evaluation of texts. Capstone English will prepare students for college-level English courses.

## **College in the Schools – English**

Students enrolled in the College in the Schools program will have concurrent enrollment at both SPCPA and the University of Minnesota where upon satisfactorily completing the course, students will receive Language Arts credit at SPCPA and the University of Minnesota.

### **College in the Schools Public Speaking**

(Semester 2 Only)

Introduction to Public Speaking (Comm 1101)

(3.0 University of Minnesota Credits)

Introduction to Public Speaking is a course designed to teach students basic public speaking skills. The course helps students develop an understanding of the basic principles of oral communication, with a focus on improving skills in researching, writing, and organizing effective presentations that are appropriate to particular audiences. Students will develop, improve, and gain confidence in basic delivery skills. Students will also learn to critically evaluate speeches and develop an awareness of, and appreciation for, the responsibilities of ethical communication.

**Prerequisites:** Junior or Senior; Teacher Recommendation; Application Process

### **College in the Schools Composition**

(Semester 1 Only)

University Writing (WRIT 1301)

(4.0 University of Minnesota Credits)

University Writing fulfills the freshman composition requirement of many colleges and universities. It involves critical reading, writing, and thinking as students practice the types of academic writing they may expect in their college career, such as summaries, essays, academic arguments, bibliographies, and research papers. The course is designed to help students develop a clear thesis in a written paper and support that thesis with appropriate sources, evidence, and documentation. Time is spent discussing rhetorical elements of writing such as audience, purpose, and argumentative structure. In addition, students practice steps in the writing process such as invention, research, organization, drafting, revision, and editing. Students report, synthesize, and draw conclusions regarding the significance of what they read. Students become aware of the linguistic and rhetorical choices they can make in their writing.

**Prerequisites:** Senior; Teacher Recommendation; Application Process

### **College in the Schools Literature**

(Semester 2 Only, 2011-2012)

Introduction to Literature: Poetry, Drama, and the Narrative (EngL 1001)

(4.0 University of Minnesota Credits)

English 1001 is a University of Minnesota course and is offered for high school students who have demonstrated exceptional abilities in literary analysis and critical writing. Through intensive, close reading of a range of literary works, students will understand diverse experiences, languages, and forms, and genres. They will also find it necessary to understand knowledge in various fields (history, art, literature, music, politics, and philosophy) and social practices (gender, race, sexuality, and class, and more) in order to understand the basic "facts" of literary works. These are discoveries which they will make through the guidance of the instructor, the other students, and themselves.

**Prerequisites:** Junior or Senior; Teacher Recommendation; Application Process

**Social Studies**  
**Graduation Requirement: 3.5 Years**

**World History**

Students examine, comparatively and chronologically, the evolution of selected cultures and societies before 1500 in Asia, India, Africa, Europe, the Middle East, and pre-Columbian America. Students explore such topics as religious practices and the birth of world religions, trade and interregional exchanges, human interaction with the environment, forms of political authority, and family life and gender roles.

**Honors World History**

This course is designed for the highly motivated student. The faster pace and increased rigor will prepare students for more advanced social studies classes. Honors students examine, comparatively and chronologically, the evolution of selected cultures and societies before 1500 in Asia, India, Africa, Europe, the Middle East, and pre-Columbian America. Students explore such topics as religious practices and the birth of world religions, trade and interregional exchanges, human interaction with the environment, forms of political authority, and family life and gender roles. The enrichment for the course involves further exploration with topics in projects and literature.

**Prerequisite:** Administrative and/or Teacher Recommendation

**Government**

Government provides an opportunity for students to gain the knowledge and skills needed for informed and responsible participation in public life. It incorporates the study of constitutional principles and the democratic foundation of our national, state and local institutions. The course examines the political processes and structures of government grounded in an understanding of our constitution. Students will know how to participate to make a difference and will have the skills required for competent participation in the political process.

**Honors Government**

Honors Government is designed for the highly motivated student. The faster pace and increased rigor will prepare students for more advanced social studies classes. Honors Government provides an opportunity for students to gain the knowledge and skills needed for informed and responsible participation in public life. It incorporates the study of constitutional principles and the democratic foundation of our national, state and local institutions. The course examines the political processes and structures of government grounded in an understanding of our constitution. Students will know how to participate to make a difference and will have the skills required for competent participation in the political process. Topics in this course are explored in greater depth.

**Prerequisite:** Administrative and/or Teacher Recommendation

**Economics**

Economics introduces basic economic concepts and principles. Emphasis is on the study of macroeconomics and the national economy. Understanding the concepts of free enterprise and economic systems is basic to studying the political institutions of the United States. The aim of civic education is not just any kind of participation by any kind of citizen; it is the participation of informed and responsible citizens.

**Honors Economics**

Honors Economics is designed for the highly motivated student. The faster pace and increased rigor will prepare students for more advanced social studies classes. Honors Economics introduces basic economic concepts and principles. Emphasis is on the study of macroeconomics and the national economy. Understanding the concepts of free enterprise and economic systems is basic to studying the political institutions of the United States. The aim of civic education is not just any kind of participation by any kind of citizen; it is the participation of informed and responsible citizens. Topics in this course are explored in greater depth.

**Prerequisite:** Administrative and/or Teacher Recommendation

**US History**

The study of U.S. History helps students understand the democratic traditions of the United States and how these traditions were established and how they continue in the present. During the first half of the semester the student will examine the development of American culture and society from the Columbian encounter through the Civil War. The second half of the course covers the development of American institutions and society from the Civil War to the present. Students will examine economic, social, cultural, and political themes from the multiple perspectives that have become the unique history of the United States. Class resources include the class text, primary source materials, American biographies and autobiographies, and historical fiction.

**Psychology**

(Semester 1 Only)

This course examines the basic principles and methods of psychological science from an evolutionary and cultural perspective. Students use critical thinking skills to examine fascinating topics: dreaming, cultural influences, identity, learning, thinking, and the biology of behavior. Applying basic research methods, students act as skeptical scientists. This course applies to almost any career choice in today's world and provides insight into self and others.

**Prerequisites:** Senior; Administrative and/or Teacher Recommendation

**Sociology**

(Semester 2 Only)

Students explore the concepts and theories necessary to systematic understanding of our social worlds. Topics may include considering sociology as science, the nature of large-and small-scale groups, social stratification, historical eras and social change, and race, ethnic and gender relations.

**Prerequisites:** Senior; Administrative and/or Teacher Recommendation

## **College in the Schools – Social Studies**

Students enrolled in the College in the Schools program will have concurrent enrollment at both SPCPA and the University of Minnesota where upon satisfactorily completing the course, students will receive social studies credit at SPCPA and the U of M.

### **CIS Early American History**

(Semester 1 Only)

American History to 1880 (HIST 1307)

(3.0 University of Minnesota Credits)

Issues, events, and ideas in the social, political, and intellectual history of the United States, from colonial era through the Civil War and reconstruction. Colonization, revolution, national expansion, religion, reform movements, slavery, immigration, industrialization, gender roles, and labor relations.

**Prerequisites:** Junior or Senior; Teacher Recommendation; Application Process

### **CIS Modern American History**

(Semester 2 Only)

American History From 1865 to Present (HIST 1308)

(3.0 University of Minnesota Credits)

Forces that shaped emergence of modern America, from end of Civil War to present. Shaping of the industrial/post-industrial economy. Work and everyday life. Race relations and immigration. Popular culture. Politics and reform movements. Impact of war on American society. Role of the United States as a global power, before, during, and after Cold War.

**Prerequisites:** Junior or Senior; Teacher Recommendation; Application Process

### **College in the Schools Political Science**

(Semester 1 Only)

American Democracy in a Changing World (POL 1001)

(4.0 University of Minnesota Credits)

College in the Schools Political Science is a course taken in conjunction with the University of Minnesota. College in the Schools Political Science will provide rigorous University academic challenges, focus student's learning on not only content and facts but also on critical thinking skills, and it will allow students to demonstrate learning on multiple and varied assessments. This course will examine fundamental aspects of U.S. Government, focusing on the language and logic used by political institutions in their process of governing. To illustrate and analyze the concepts of American Government, application to current public policy issues will be included. We will explore the bigger questions of what kind of society we want and the roles government should play in achieving that society.

**Prerequisites:** Senior; Teacher Recommendation; Application Process

**Mathematics**  
**Graduation Requirement: 3 Years**

**Math Essentials**

**(Prerequisite: MAP Score below 222)**

**Intermediate Algebra**

**(Prerequisite: Minimum MAP Score of 222)**

This first year high school math course reviews important goals and objectives students must master to be successful in future math courses. In addition, Intermediate Algebra I highlights solving equations, factoring, and working with linear equations/inequalities. In this course students will learn the basics of graphing, working with variables, evaluating expressions with exponents, and manipulating mathematical expressions.

**Geometry**

**(Prerequisite: Algebra I or Equivalent or Minimum MAP Score of 230)**

**Advanced Geometry**

**(Prerequisite: 9<sup>th</sup> Grade Only, Minimum MAP Score of 240)**

The geometry course provides a basic understanding of classical Euclidean geometry by presenting the properties and applications of: (1) points, lines, planes, (2) the study of angles formed by parallel and perpendicular lines, (3) the construction of angles and triangles using a straight edge and compass, (4) polygons, which includes triangles (obtuse, isosceles, equilateral, right, etc.), and quadrilaterals (parallelogram, rhombus, trapezoid, rectangle, square), (5) congruence and similarity, (6) transformations (translation, reflection, dilation, and rotation) (6) properties and applications of circles, and (7) solid geometry. Along with Euclidean geometry, the course includes coordinate geometry, which examines classical Euclidean geometry using the Cartesian coordinate system. Students will explore various types of proofs such as the paragraph proof and the standard two-column proof.

**Algebra II**

**(Prerequisite: Algebra I or Equivalent and Geometry)**

**Advanced Algebra II**

**(Prerequisite: 9<sup>th</sup> & 10<sup>th</sup> Grade Only, Algebra I or Equivalent and Geometry (B or Above), Minimum MAP Score of 240)**

The Algebra II course emphasizes facility with algebraic expressions and forms, especially linear and quadratic forms, powers, and roots, and functions based on these concepts. Students will study exponential, logarithmic, trigonometric, and other special functions as tools for modeling real-world situations. This course will also cover probability and statistics this semester. The topics covered in this course prepare students for the standardized MCA-II in the spring of a student's junior year of high school.

**Discrete Math**

**(Prerequisite: Algebra II)**

This course is designed to introduce students to Discrete Math and its importance in making decisions in today's world. In Discrete Math, the following topics are studied: Election Theory, fair division, matrix operations and applications, graphs and their applications, more graphs, subgraphs, and trees, counting and probability, and matrices. The use of the graphing calculator in Discrete Math is considered an integral part of the course.

**Prerequisite:** Algebra II or Equivalent

**Precalculus****(Prerequisite: Algebra II (B or Above), Minimum MAP Score of 250)**

This course is a survey of topics in Mathematics that will prepare you for Calculus, and also help you review for the MCA-II. Students will understand and apply concepts of Trigonometry, Vectors, Matrices, Probability, Statistics, and Limits.

**Prerequisite:** Algebra II or Equivalent**Calculus I****(Prerequisite: Precalculus, Minimum MAP Score of 260)**

Calculus, while difficult, is extremely useful. Its applications range from Physics to Economics. While this is not a formal AP course, it will cover enough material to prepare students for the Calculus AB test, should they choose to take it. First semester, students will review functions and limits, and then learn the process and application of differentiation. Second semester, students will learn about Riemann Sums, Integration and its many applications.

**Prerequisite:** Precalculus or Equivalent

## **Science Course Descriptions**

### **Graduation Requirement: 3 Years (1 Year must be Biology)**

#### **Biology**

Biology is a course designed to provide students with an overview of the processes of living things, from a cellular level to the biosphere. Students will learn the various cellular activities required to support life, which include the following topics: cell structure and function, photosynthesis, growth and division, and genetics. Other content areas that will be covered over the course of the year include: the classification of organisms, theories of biological change, microbiology, diversity of plants and animals, the human body, and ecological concepts that impact our world and the living organisms it supports. Students will strengthen their scientific vocabulary to engage in virtual laboratory experiences, projects, and discussions.

#### **Honors Biology**

This course is designed for a student committed to academic achievement. The course will be more rigorous and require a greater commitment from students. Students best suited for this class should have excelled in previous science classes. Honors Biology is a course designed to provide students with a greater understanding of the processes of living things, from a cellular level to the biosphere. Students will learn the various cellular activities required to support life, which include the following topics: cell structure and function, photosynthesis, growth and division, and genetics. Other content areas that will be covered over the course of the year include: the classification of organisms, theories of biological change, microbiology, diversity of plants and animals, the human body, and ecological concepts that impact our world and the living organisms it supports. Honors Biology students will engage in advanced virtual laboratory experiences, critical thinking exercises, and current scientific issues.

**Prerequisite:** Administrative and/or Teacher Recommendation

#### **Anatomy and Physiology**

A lecture and laboratory-based study of the human body emphasizing the complementary nature of structure and function, molecular and cellular interactions, homeostasis, and metabolic processes. Includes a study of cells, tissues, membranes, skeletal, muscular, and reproductive systems.

**Prerequisite:** Biology or Honors Biology

#### **Honors Chemistry**

The Honors Chemistry course focuses on three main goals (1) to provide a deep and broad introduction to chemistry concepts and skills (2) to prepare students for further study of chemistry in higher education and (3) to relate chemistry to the surrounding environment and to products produced in industry. Honors Chemistry students must have strong math skills and a commitment to a more rigorous course of study. Theoretical chemical concepts and problem solving with heavy emphasis on formal laboratory experiments will be consistent throughout the course.

**Prerequisite:** Administrative and/or Teacher Recommendation

#### **Honors Physics**

In this course, science and mathematics meet to describe and explain nature. Myriad phenomena, from planets to circuits, will be explored. Students will apply their knowledge during lab activities, and present their analyses of real-world situations to their classmates as a part of their unit projects. Over the course of the year, students will study Kinematics, Work and Energy, Electricity and Magnetism, Waves, Light, Optics, and additional topics at the instructor's discretion. Students prepared for advanced course work should contact the instructor directly if interested in an honors distinction.

**Forensics**

This course provides an overview of scientific methods used in crime scene investigation. Students will review and conduct labs in modern DNA analysis, fingerprinting, fiber analysis, ballistics analysis, print impressions, bone and dental analysis, and entomology. The course will explore forensic science careers from the crime scene investigator to the medical examiner and use laboratory methods, instrumentation, and strategies often utilized within the criminal justice system. NOTE: This is a one semester Science Elective course and does not qualify as one of the Science credits required for graduation.

**Prerequisites:** Successful completion of Biology and Chemistry, Junior or Senior

**College in the Schools – Science**

Students enrolled in the College in the Schools program will have concurrent enrollment at both SPCPA and the University of Minnesota where upon satisfactorily completing the course, students will receive Language Arts credit at SPCPA and the University of Minnesota.

**College in the Schools Anatomy and Physiology**

(Semesters 1 & 2)

Essentials of Human Anatomy and Physiology (PSTL 1135)

(4.0 University of Minnesota Credits)

This course examines specific topics in human anatomy and physiology, such as fitness and disease and body systems such as the respiratory, muscular, and cardiovascular systems. Students engage in a wide range of learning activities, such as cooperative learning groups, computer enhanced learning, anatomical model building, and inquiry-based lab activities.

**Prerequisites:** Senior; B or above in Chemistry; Application Process

## World Languages

*Study of a second language is not required to graduate from SPCPA. However, it is an elective offered in order to meet college and university entrance requirements. Minnesota state colleges and universities require **a minimum of two years of the same language studied at the high school level**. Many selective colleges and universities recommend that students have three or more years of experience with the same language.*

### **French I**

This introductory course will introduce students to French language, culture, history, and scope of the Francophone world. Students will begin to develop proficiency in reading, writing, speaking, and listening. Students will communicate in simple everyday conversations, write and read simple material, and begin to discover French speaking countries. The aim of this course is to guide students to become lifelong language learners and appreciate cultures from around the world.

### **French II**

The French II course is a continuation of the introductory study of the language begun in French I and will advance students to the intermediate level, further developing proficiency in reading, writing, speaking, and listening. Students will read basic texts, write simple paragraphs, and converse in real-world situations. Students will continue to study the culture and history of the Francophone world. The aim of this class is to guide students to become lifelong language learners and appreciate cultures from around the world.

**Prerequisite:** French I

### **Spanish I**

This introductory course will focus on the acquisition and mastery of skills vital in creating a solid language foundation for the beginning Spanish learner. Emphasis will be placed on beginning level Spanish vocabulary and grammar, as well as Hispanic culture. Students learn how to communicate about such basic topics as: telling time, describing oneself, as well as others, acknowledging one's feelings and health, talking about one's likes and dislikes as well as leisure time activities, describing one's family, talking about the weather/climate/seasons, ordering food and beverages, and describing the classroom environment as well as the home. By the end of the course, students will be able to successfully recognize and manipulate infinitives; understand and apply the concepts of number and gender in relation to noun and adjective agreement and placement; understand how the possessive is formed in Spanish and use it correctly; conjugate regular verbs in the present tense as well as some commonly used irregular verbs; and form and answer basic questions in Spanish.

**Prerequisite:** (Spanish taken at the middle school level may/may not satisfy Spanish 1 credit.)

### **Spanish II**

The Spanish II course is a continuation of the introductory study of the language begun in Spanish I that will advance students to the intermediate level. Study of the present tense is continued with the mastery of irregular and stem-changing verbs as well as the introduction of reflexive verbs. Students will learn how to form informal commands in Spanish. They will also begin study of the past tense forms, mainly the preterit tense. Other topics of study and mastery will include making comparisons, the use of possessive and demonstrative adjectives, and direct and indirect object pronouns. By the end of the course, students will be able to successfully converse and write about the following topics: daily routines, their home and chores, clothing choices and going shopping, common places in a city and getting around town, going on vacation, and talking about the past.

**Prerequisite:** Spanish I

**Spanish III**

Spanish III is an introduction to the intermediate study of the language; it will expand upon in greater depth the vocabulary, grammar, and cultural understanding acquired in Spanish II. The goals of the level III course include mastering and perfecting the grammatical concepts introduced in level II, such as use of the preterite vs. other forms of the past tense (like the imperfect and the present perfect), formal and negative commands, and indirect objects. The level III course also delves into other intermediate grammatical topics such as the use of the prepositions *por* and *para*. By the end of the course, students will be able to successfully describe and narrate in the past and confidently give commands in Spanish.

**Prerequisite:** Spanish II

**Spanish IV**

Spanish IV is a course designed to help students begin to bridge the gap from the intermediate level of language learning to the advanced level of language studies. Spanish IV is a cumulative review of all the more difficult intermediate level grammatical structures studied in previous levels that focuses on perfecting and refining them through the use of more advanced and specialized vocabulary. The course also introduces students to more advanced grammatical structures such as the subjunctive, conditional, and future tenses. By the end of the course, students will have a basic understanding of the different uses of the subjunctive tense and will be able to apply its various usages within specified written and spoken contexts. In addition, students will be able to describe and narrate in the past, predict future occurrences, and express hopes, doubts, and desires.

**Prerequisite:** Spanish III