

Howells Public Schools Course Descriptions

Mathematics

Pre-Algebra

Grade: 9, 10, 11, 12

Elective

5 Hours/Semester

10 Hours/Full Year

Prerequisite: None

Paper and pencil techniques, and calculators will be utilized. The course will include a review of decimals, fractions, and percents. Topics covered include patterns, variables, linear equations, graphs, geometry, and problem-solving strategies. The course is intended to prepare the student for the study of algebra and geometry and to provide the basis for mathematical applications in science courses.

Applied Math

Grade: 10, 11, 12

Elective

5 Hours/Semester

10 Hours/Full Year

Prerequisite: Algebra I

This course will stress the review of whole numbers, decimals, fractions and percents. Students will also become familiar with personal business mathematics including: income, banking, cash purchases, credit and loan purchases, cost of leasing and owning an automobile, housing costs, insurance, and record-keeping. Students will gain knowledge in the area of business mathematics including topics such as: personnel, production and purchasing, sales and marketing, inventory, accounting and financial management. Students will also apply mathematics to the work place by learning how to read industrial measurements, apply and use algebra in the workplace, apply the concepts of geometry to several different careers and use trigonometry and statistics and apply them to the workplace. Additional areas of education which maybe addressed include: spreadsheet applications, working in cooperative groups, problem-solving strategies, and communication skills.

Algebra I

Grade: 9, 10, 11, 12

Required

5 Hours/Semester

10 Hours/Full Year

Prerequisite: None

This course will include material on the following topics: variables, symbols, and expressions; properties of multiplication and addition; order of operation; linear equations and inequalities; graphs in the coordinate plane; exponents and powers; quadratic equations; polynomials; linear systems of equations; factoring; functions.

Geometry

Grade: 10, 11, 12

Elective

5 Hours/Semester

10 Hours/Full Year

Prerequisite: Algebra I

This course is an integrated course in plane, solid, and coordinate geometry with major emphasis on plane geometry. This course is designed to teach concepts of geometric relationships through both practical and abstract approaches. The concept of mathematical proof is emphasized. It also develops a model of mathematical system complete with definitions, postulates, corollaries, and further applications of these concepts. Algebraic skills are reviewed and strengthened through application to solving problems in geometry.

Algebra II

Grade: 11, 12

Elective

5 Hours/Semester

10 Hours/Full Year

Prerequisite: Algebra I, Geometry

The course will include linear and quadratic functions, variations, graphs, systems, logarithms, complex numbers, radicals, and powers. It will also include an introduction into analytic Geometry and Trigonometry.

Unified Math

Grade: 11, 12

Elective

5 Hours/Semester

10 Hours/Full Year

Prerequisite: Algebra I

This course is an integrated course in Algebra II, Geometry, and Advance math. The course will include the following topics: numbers and sets, basic logic, equations, expressions, inequalities, systems of equations, basic geometry, congruent triangles, proofs, circle geometry, polynomials, quadratics, rational and irrational numbers, and probability and statistics.

Advanced Math

Grade: 12

Elective

5 Hours/Semester

10 Hours/Full Year

Prerequisite: Algebra I, Geometry, Algebra II

The algebra topics include inverses; radicals, exponential functions, logarithmic functions, and polynomial functions. A Graphing calculator will be provided and used extensively in this course. This course will contain materials relating to: trigonometric functions, circular functions, matrices, exponential and logarithmic functions, data collection and display, probability and simulation, sequences, series, combinations, and polynomial functions.

Family/Consumer Sciences

9th Comprehensive FCS

Grade: 9, 10, 11, 12

Elective

5 Hours/Semester

10 Hours/Full Year

Prerequisite: None

In 9th Grade Family and Consumer Sciences, students are introduced to all areas of Family and Consumer Sciences. This course includes the topics of foods and nutrition, food preparation, clothing selection and care, sewing, relationships, child development, housing, and being a wise consumer. This class is designed for freshmen, but can be taken by students at any grade level.

10th FCS – Foods/Child Development

Grade: 9, 10, 11, 12

Elective

5 Hours/Semester

10 Hours/Full Year

Prerequisite: None

In the 10th Grade Family and Consumer Sciences class, the first semester focuses on Food and Nutrition. Students learn about nutrition concepts and food preparation techniques and principles. The second semester, this course includes study of child development and parenting concepts. This course can be taken by students at any grade level.

11th FCS – Adult Living

Grade: 11,12

Elective

5 Hours/Semester

10 Hours/Full Year

Prerequisite: None

In Adult Living, students study about relationships, single and married life, parenting, making career choices and employment skills. Students also learn about making wise consumer decisions and management of resources.

12th FCS – Independent Living

Grade: 11,12

Elective

5 Hours/Semester

10 Hours/Full Year

Prerequisite: None

This course, Independent Living, focuses on skills needed for life after high school. The topics studied include food and nutrition, food preparation skills, clothing selection and care, housing selection and maintenance, money management and consumerism, and managing work and family life

Physical/Life Science

Earth Science

Grade: 9 Required 5 Hours/Semester 10 Hours/Full Year
Prerequisite: None

The 9th grade science class consists of approximately 3 quarters of earth science which is about the geological processes that occur on the earth and the earth's place in the solar system and universe. Approximately one quarter is devoted to physical science topics that are included in the state department's science standards.

General Biology

Grade: 10 Required 5 Hours/Semester 10 Hours/Full Year
Prerequisite:

General Biology is a lecture/lab class. This biology course entails the study of: cellular process, genetics, animal behavior, select organ systems, etc

Chemistry

Grade: 11 Elective 5 Hours/Semester 10 Hours/Full Year
Prerequisite: Earth Science, Biology

Chemistry is a study of the composition of matter and changes in composition that take place. This is a college prep class and students need to have the math skills that are required of algebra one students.

Advanced Biology

Grade: 11,12 Elective 5 Hours/Semester 10 Hours/Full Year
Prerequisite: Earth Science, Biology

Advanced Biology is a lab and group discussion class. This biology course entails the study of: anatomy through dissection, the physiology of the body systems, and current science having to deal with our course of study.

Physics

Grade: 12 Elective 5 Hours/Semester 10 Hours/Full Year
Prerequisite: Earth Science, Biology, Chemistry

Physics is a study of matter and energy and transformations of energy. This is a college prep class and students need to have the math skills which are required of Algebra II or advanced math students.

Physical Education

10th Grade P.E./Health

Grade: 10 Required 5 Hours/Semester 10 Hours/Full Year
Prerequisite: None

The tenth grade Physical Education/Health is a combination of physical exercise and health topics in classroom setting. It entails the rules of play for many sports such as football, basketball, and volleyball. The Health part of the class is taught in a classroom setting and all elements of a healthy lifestyle are discussed.

Vocational Agriculture

Ag I

Grade: 9, 10, 11,12

Elective

5 Hours/Semester

10 Hours/Full Year

Prerequisite: None

This class is designed to give students a broad background of agriculture in the area, state, and nation. We cover units that deal with the different segments of agriculture. These would include agriculture careers, natural resources, animal science, plant science, leadership, and metals. Students are introduced to the FFA, and leadership experiences for the members are made available through speaking contests, and parliamentary procedure.

Ag II

Grade: 10, 11, 12

Elective

5 Hours/Semester

10 Hours/Full Year

Prerequisite: Ag I

This class is a combination of plant sciences/natural resources and some animal science. The units include soils, conservation practices, Natural Resource management. Plant science units on weeds, crop production, and plant nutrients. Animal science units include livestock selection and digestion. If students are in FFA they will have the opportunity to travel to MFE and compete at District and State competitions in speaking, livestock selection, and Parliamentary Procedure.

Ag III

Grade: 11,12

Elective

5 Hours/Semester

10 Hours/Full Year

Prerequisite: Ag I

This ag class is based on animal science and Ag. Sales. Units include reproduction, health, and feeding. The meats industry is studied, as is carcass pricing, skeletal composition and the cuts of meat. Sales units focus on career opportunities in sales, and preparing a sales presentation. Students build projects in the shop. Students in FFA can earn their way to State and National Conventions, Leadership training camps and compete in the Ag demonstration and Meats contests.

Ag IV

Grade: 12

Elective

5 Hours/Semester

10 Hours/Full Year

Prerequisite: Ag I

The units in this class study involve farm management. Students do balance sheets, income statements, and cash flows. They complete their own resumes and job application letters. They may complete applications for the State FFA degree. Student leaders of the local FFA Chapter may attend leadership training in Washington, Kansas City, and Aurora.

Ag Mechanics

Grade: 11,12

Elective

5 Hours/Semester

10 Hours/Full Year

Prerequisite: None

Students spend their time improving their shop skills including wire welding, plasma cutting, and arc welding. Students build projects for themselves or can take on a group project, planning to completion.

Language Arts

Speech/Communications

Grade: 9, 10, 11, 12

Required

5 Hours/Semester

10 Hours/Full Year

Prerequisite: None

The semester course is open to anyone in grades 9-12. The course features units in the communication processes and interpersonal (human relations) skills. This student centered course features activities and assignments to develop appropriate people skills for personal and professional development. The skills presented and practices prepare students for present school needs, college courses, community relations, and the world of work. Formal and informal speaking experiences are done in class. Through the various experiences in this course, students develop critical and creative thinking skills, develop writing and organizational skills, and develop overall poise and confidence. The course provides opportunities for the state standard communication tests.

Yearbook

Grade: 9, 10, 1, 12

Elective

2, 3 or 5 Hours/Semester

4-10 Hours/Year

Prerequisite: None

In yearbook class, students focus on creating the school yearbook and the monthly school newspaper, *The Paw Print*. Students also sell yearbook ads and yearbooks. The class work includes writing assignments, articles and copy for the yearbook. Students also take and work with photos for the yearbook. This class is available for students in grades 9 – 12.

English 9

Grade: 9

Required

5 Hours/Semester

10 Hours/Full Year

Prerequisite: None

This course presents units in vocabulary, short stories, poetry, and drama literatures. Writing modes of description and narration are emphasized. Enrichment Reading of student-selected books is a required element of the course.

English 10

Grade: 10

Required

5 Hours/Semester

10 Hours/Full Year

Prerequisite: English 9

This course presents units in vocabulary, nonfiction, poetry, and drama literatures. Writing features special modes such as cause and effect, and comparison and contrast. Units in writing effective business letters, resumes, and interviews are presented. Enrichment reading of student selected books is a requirement of the course.

Creative Writing

Grade: 10, 11,12

Elective

5 Hours/Semester

10 Hours/Full Year

Prerequisite: English 9

This course is an elective course for juniors and seniors. A variety of writing styles are studied, such as short stories, mysteries, plays, poetry, sensory detail writing, personal essays, and more. Writing-workshops with class discussions are implemented to help with proofreading and finalization of weekly papers. Student-taught lessons are presented each semester with discussion following. A portfolio of student's work is required for each semester.

11th English

Grade: 11

Required

5 Hours/Semester

10 Hours/Full Year

Prerequisite: English 9, English 10

This course covers analysis of American Literature and a variety of writing styles including focus on persuasive writing, research papers, and quarterly book reviews / presentations. Weekly vocabulary chapters are reviewed as well. A class novel is incorporated during the 2nd semester along with a business writing section and speeches. The state writing standards are also reviewed and tested.

English 11 - College preparatory

Grade: 11 Required 5 Hours/Semester 10 Hours/Full Year
Prerequisite: English 9, English 10

This course features the development of American literature and culture. Units survey historic time periods and the literatures written during the era are read, discussed and analyzed. Literature genres of short stories, poetry, nonfiction, and drama are studied. Composition features literary analyses, journals and persuasive writing. Most the Nebraska State Standards are tested during this course. The state writing assessment is practiced and tested. Enrichment reading is a requirement of the course.

12th English

Grade: 12 Required 5 Hours/Semester 10 Hours/Full Year
Prerequisite: English 9, English 10, English 11

This course covers analysis of British Literature and various writing styles such as critical thinking and evaluation. The 2nd semester includes a Senior Project involving a research paper and speech presentation. A business section is also taught covering résumés and business letters. Book reviews are required for every quarter with a project. Weekly vocabulary chapters are also taught.

English 12- College Preparatory

Grade: 12 Required 5 Hours/Semester 10 Hours/Full Year
Prerequisite: English 9, English 10, English 11

This course features the cultural development of the English language through the classical literatures from Anglo-Saxon times to the present. A short historical review previews each unit. The course features reading skills, critical/creative thinking, and writing experiences. The course begins with motivational ideas and goal setting. This is followed by a college planning unit with college catalogs. A mock tour of England's geography, symbols, and attractions identifies key current media references that occur. The course presents both MLA and APA document information that is used for a research paper. The second semester features a senior project in reading, writing, and a presentation using a number of media elements. The course addresses all Nebraska RWSL standards.

Vocal/Instrumental Music

Chorus

Grade: 9, 10, 11, 12 Elective 2 Hours/Semester 4 Hours/Full Year
Prerequisite: None

The purpose of the Mixed Chorus is to provide a musical ensemble that any student may choose to participate in. No former knowledge of music is required. The chorus performs in various public concerts, conference music clinic and district music contests each year.

Band

Grade: 9, 10, 11, 12 Elective 3 Hours/Semester 6 Hours/Full Year
Prerequisite: None

All Art 2 students will review the Elements and Principles of Design. They will continue to explore relationships while producing artwork in various media and mixed media projects. Technique (learned skills) shall be implemented and explored in relationship to media used. All students will build on color theory skills and be introduced to a unit of study emphasizing three-dimensional artwork using found material and paper-mache. The potters wheel will be introduced in the production of ceramics and various combinations of clay building techniques (slab, coil, and thrown) will be explored. Art History and the study of various artists will enhance student knowledge and creativity.

Art 3 & 4

Grade: 11,12

Elective

5 Hours/Semester

10 Hours/Full Year

Prerequisite: Art 1, Art 2, and/or Art 3

Advanced art students will continue to explore theory and ideas related to individual media and mixed media preferences. Media may include: 2-D (graphite, marker, charcoal, chalk, paint, ink and computer software) and 3-D (clay, paper-mache, wood, plaster, textiles, and found materials.) Combinations of materials will be encouraged. Other materials may be used as agreed upon with the instructor. All students will experience a directed study approach and will be challenged to broaden technical and creative skills. Students interested in an art career field will be encouraged to develop a portfolio of their work. Students will be expected to complete artwork at a level commensurate with their ability.