



2018-2019 NINTH GRADE COURSE GUIDE

Please choose from the following courses as you complete your enrollment form for next school year. Please consult with Mrs. Cook with any questions.

English

English I is organized around the overarching theme of "Who Am I?" Instruction is aligned with the Common Core Standards for English Language Arts. Students study literature from a variety of genres including novels, plays, poetry, short stories and nonfiction, all exploring the coming-of-age story and the question of how personal identity is formed by the cultural influences surrounding each of us. The instructional emphasis is on close reading and using textual examples to draw specific conclusions about a work. Vocabulary, grammar and composition skills are integrated into the literature units, which may include creation stories from around the world, Greek and Shakespearean drama such as *Oedipus Rex* and *Romeo and Juliet*, novels such as *To Kill a Mockingbird* and *Great Expectations*, and a variety of poems, nonfiction essays and texts. Students will take the North Carolina Final Exam at the end of the course.

Social Studies

World History This survey course is designed to provide an overview of global history from prehistoric times to the modern era. Using project-based learning and research, students will discover how the use of technology, the spread of ideas, and interactions among civilizations have changed throughout history and shaped the modern world. Honors-level World History is also available. Students will take the North Carolina Final Exam for World History at the end of the course. This course is open to all students.

Science

Biology This course is the study of living organisms. Students do laboratory work and collaborative activities that enhance their understanding of topics including cell processes, genetics, evolution, diversity of organisms, and ecology. Throughout the year, students have hands-on opportunities to apply biotechnology techniques to further their understanding of these topics and their applications. Students will take the North Carolina End of Course exam for Biology at the end of the course. This course is open to all students.

Chemistry This course is the study of matter and its changes. Laboratory work and collaborative study support standard content including nomenclature, acids and bases, types of reactions, and organic and nuclear chemistry. Chemistry has a rigorous math component. Students will take the North Carolina Final Exam for Chemistry at the end of the course. Students should have completed Math I before taking Chemistry.

Health and Physical Education

Health and PE This course is required for graduation from a North Carolina public high school. Health topics such as nutrition, mental and physical health, and substance abuse are covered. In addition, students pursue physical activities such as strength training, yoga, basketball, and aerobic exercise as well as sport theory. This course is open to all students.

Mathematics

Math 1 This course is the first course in the integrated Common Core math sequence. Students will revisit and strengthen equation-solving and arithmetic skills. Emphasis will be placed on incorporating geometry, data analysis, graphing and linear and non-linear functions to model and solve problem situations. Applications, connections and communication of these concepts will be another core focus. Students will take the North Carolina End of Course test for Math I at the end of the course. Math 1 is open to students who have successfully completed 8th grade math.

Math 2 This course is the second course of the local option Common Core math sequence. The focus of Math II is on quadratic expressions, equations, and functions, comparing their characteristics and behavior to those of linear and exponential relationships from Math I. Additional topics explored in Math II are probability, statistics, geometry, and trigonometry. Please note that Math 2 is not the equivalent of Geometry. Students who have completed Geometry should sign up for Math 2 and **not Math 3.**

Math 3 This course is the final course of the local option Common Core math sequence. It is in Math 3 that students synthesize and apply the material from previous courses. Students apply methods from probability and statistics to draw inferences and conclusions from data. Students expand their repertoire of functions to include polynomial, rational, and radical functions, as well as expand their study of right triangle trigonometry to include general triangles. Students bring together all of their experience with functions and geometry to create models and solve contextual problems. Math 3 is open to students who have successfully completed Math II or Algebra II.

Advanced Functions and Modeling (AFM) will focus on the mathematics of the real world and creating mathematical models. AFM will provide students with an in-depth study of modeling and applying functions that represent home, work, recreation, consumer and scientific investigations. Students will use linear, quadratic, cubic, and exponential functions, as well as trigonometric ratios, to model and solve problems. Students will also use logic, deductive reasoning and statistical analysis to draw conclusions and solve problems. AFM is open to students who have successfully completed Math 1, 2 and 3.

Pre-Calculus completes the formal study of the elementary functions begun in Math 1, 2, and 3. Students focus on the use of technology, modeling, and problem solving. Functions studied include polynomial, exponential, logarithmic, rational, radical, piece-wise, and trigonometric and circular functions and their inverses. Parametric equations, vectors, and infinite sequences and series are also studied. Math 3 is a prerequisite for this course.

Introduction to Calculus and Statistics (Non-AP®) This is a year-long course taken in two parts, both of which must be taken together during one academic year. This course is a rigorous exploration of both statistical analysis and calculus, but is not a college level (AP®) course. Students will represent concepts graphically, numerically, analytically and verbally. Prior mathematical knowledge will be reinforced and leveraged in order to master the concepts of limits and differential calculus. Students will be introduced to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Students are exposed to broad conceptual themes: exploring data, describing patterns and departures from patterns, sampling and experimentation, planning and conducting a study, anticipating patterns, statistical inference, estimating population parameters, and testing hypotheses. Appropriate use of technology to support learning is incorporated throughout the course. This course is open to students who have completed Math 1, Math 2, Math 3 and Pre-Calculus and requires teacher recommendation.

AP® Calculus AB This course is an advanced course primarily concerned with developing students' understanding of the concepts of calculus and providing experience with its methods and applications with the goal of preparing students to take the AP® Calculus AB exam in the spring. The course emphasizes a multi-representational approach to calculus, with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. This is an intense, fast-paced course that requires strong student interest and independence. An AP® contract is required, as well as instructor recommendation. Students are expected to take the AP® Calculus BC exam.

World Languages

Note: all students are expected to complete two courses in the same world language, including at least one year in high school.

Spanish I is designed to give students a basic understanding of the Hispanic culture and the four language skills: writing, reading, listening, and speaking. Students are expected to engage in communicative tasks that are relevant to their lives and authentic to the Spanish-speaking world, through the use of extensive concrete practice of open-ended, personalized speaking and writing tasks. Technology, peer interactions, vocabulary in context, grammar, physical actions (such as role-playing and creating dialogues in the target language) are all part of the curriculum. This course is open to all students.

Spanish II is the next course in the sequence for students who have completed Spanish I for credit. For admission to the UNC system, students are expected to have completed two years of study in the same world language. Students must have completed Spanish I.

German I is the entry level course in the study of the German language. Students will learn to write, read, and speak, as well as study aspects of German culture. This course is open to all students.

Latin I exposes students to the language, culture and history of the Romans. An introduction to the language through *Wheelock's Latin* emphasizes comprehension of the Latin language by reading it and thus understanding the social and political history of the Romans, especially during the first century AD. The result of the student's study of Latin is improved knowledge of both English vocabulary and grammar, an expanded understanding of the relationship of the ancient world to Western culture, and appreciation of other foreign languages and culture.

Electives

Art I Art I is an entry-level class that establishes a standard and consistent foundation in the discipline of visual art. This course will provide opportunities to examine, explore, and manipulate several different mediums in art. There will be a strong focus on learning to draw from direct observation. This will be accomplished through the process of art production, the study of art history, the practice of art criticism, and the exploration of aesthetics in art. This course is open to all students.

Creative Writing This student driven elective course delves into books selected by students and results in writings and creations by students. Students will study a variety of texts, ranging from *The Hobbit* to Adele lyrics to *Maus*. Then, using these texts as inspiration, students create their own fantastical worlds and write their own fantasy short stories; they create their own music and write their own song lyrics, create their own graphic novels, and write their own biography through dialogue. Therefore, this course is for the student writer who is seeking an opportunity to encounter, explore, explain, and expand. We will encounter new genres of literature, explore various writing techniques, explain our literary visions in workshop settings, and expand on our own identities as authors. This is an elective course that revolves around creativity of thought, creativity of action, and (ultimately) creativity of writing.

Drama I introduces the fundamentals of all major roles in the craft of theatre. The class provides experience in acting, design, playwriting, directing and producing, with a culminating project for each discipline. Drama I is open to all students.

Digital Music Creation Students will use technology to create, compose, and perform musical works, while learning music history, style, and theory. This course is open to all students.

Publications Students will learn the basics of reporting, photography, interviewing, journalistic writing, advertising and marketing, all the while working on actual publications such as the school yearbook. Activities may include workshops and field trips for yearbook and newspaper skills as well as basics of layout and design. Students may take the course in multiple years at advanced levels and serve as editors and in other leadership roles. Students can improve their writing skills and gain a deeper understanding of First Amendment and journalism ethics issues in America while they work on real-world publications. This course is open to all students.

Speech Communication and Debate Students will build skills to become confident presenters for all kinds of formal and informal speaking situations. They will study the use of body language and physicality in speeches, vocal issues such as volume, rate, and expression, and persuasive techniques including an in-depth study of advertising and propaganda. Formats

will include speeches to inform, persuade, and demonstrate. Students will have the opportunity, if they wish, to prepare for competitive speech events such as Dramatic Interpretation and different styles of debate such as Lincoln-Douglas and Public. This course is open to all students.

Technical Theatre is an introduction to theatrical design and construction, Technical Theatre both covers in-depth the art of set, costume, lighting and sound design, as well as forming the build and running crew for all RTHS Raptor Repertory productions. This course is open to all students.

Video Production I is a film making and screenwriting course aimed at producing videos for Internet distribution. Students will study and create various forms, including sketch comedy, serial drama, advertising, and educational video. This course is open to all students.