

# LINCOLN ACADEMY

## 9<sup>th</sup> Grade Course Descriptions

*Abbreviations following credit hours indicate High School Graduation Requirement categories.*

### REQUIRED COURSES

#### ENGLISH

##### English 9:

1 credit (E)

This course develops language skills in 4 areas: reading, writing, speaking, and presentation skills. Students will read both fiction and non-fiction and write in a variety of genres. *Students will be expected to purchase their own copy of the novels that will be studied in this class. More information will follow.*

#### MATH

##### Applied Math:

1 credit (EL)

*Prerequisite: Teacher Signature Required*

This course builds on arithmetic calculation, measurements, basic geometry and other foundational concepts and skills. It also includes extensive pre-algebra exercises, preparing the student for upper-level mathematics.

##### Pre-Algebra:

1 credit (EL)

*Prerequisite: Teacher Signature Required*

With Algebra  $\frac{1}{2}$ , students can deepen their understanding of pre-algebraic topics. Algebra  $\frac{1}{2}$  includes instruction and enrichment on such topics as compressions, approximating roots, polynomials, advanced graphing, basic trigonometry, and more. ***This class does not give CORE math credit for 9<sup>th</sup> graders.***

##### Algebra I:

1 credit (EM)

*Prerequisite: Teacher Signature Required*

This course extends students' problem-solving strategies and their abilities to model problems algebraically, numerically, and graphically. Students study the properties of the real number system and use these properties to solve linear equations and inequalities. Students also learn many fundamental principles of geometric figures.

##### Geometry:

1 credit (EM/AM)

*Prerequisite: Teacher Signature Required*

Students completing the Saxon Algebra II text will have studied the equivalent of one year of Geometry. Ample time is spent developing geometric concepts.

##### Algebra II:

1 credit (EM/AM)

*Prerequisite: Teacher Signature Required*

Algebra 2 covers all topics that are traditionally covered in second-year algebra as well as a considerable amount of geometry.

##### Advanced Mathematics:

1 credit (EM/AM) Pre-Calculus

*Prerequisite: Teacher Signature Required*

Advanced Mathematics fully integrates topics from algebra, geometry, trigonometry, discrete mathematics, and mathematical analysis. Word problems are developed throughout the problem sets and become progressively more elaborate. With regular practice, students will be able to solve challenging problems such as rate problems and problems involving abstract quantities.

#### SCIENCE

##### Earth Science:

1 credit (SC1)

Earth Systems is a yearlong high school course intended for students who are in the 9<sup>th</sup> grade. This is an intensive study of the earth. Students will develop an understanding of interactions and interdependence within and between Earth Systems changes over time. The systems we will study are: biological, atmospheric, water and energy, geological and space.

##### Biology:

1 credit (SC1, S/M)

This course will introduce students to the science of life. Students will cover the functions of atoms and molecules in the chemistry of cells, plants and simple organisms, and the workings of the human body. Student will be involved in labs to enhance learning and relevance.

#### SOCIAL STUDIES

##### World Geography:

.5 credit (G)

In this course, students will be encouraged to understand the world in which we live. This course allows students to learn about different regions of the world in three aspects: physical geography, cultural geography, and current events.

##### World Civilizations:

.5 credit (WC)

This course allows students to experience the history of the world and its civilizations and understand their relevance to our world today.

#### PHYSICAL EDUCATION

##### Participation Skills and Techniques (P.E.):

.5 credit (PES)

Skills and techniques in a variety of team and individual sports are taught. Running and exercise skills are taught to improve physical conditioning.

***\*\*P.E. uniform required (cost approximately \$15).***