

— CLASS OF —
2030

FIRST ACADEMIC **COURSE DESCRIPTIONS**



MINIMUM PROGRAM OF STUDY

English	4 units
History and Social Studies	3 units
Mathematics	4 units
Physical Education	1 unit
Science	3 units
Social Action	2 units
Theology	2 units
Visual and Performing Arts	2 units
World Languages	3 units
Electives	2 units

HONORS DESIGNATION

Students are awarded Honors based on a 4.3 grade point average requirement:

- Honors: 3.3
- High Honors: 3.7
- Highest Honors: 4.0

At graduation, Fourth Academic students' academic distinctions are cumulative, based on a four-year grade point average.

ABOUT OUR FACULTY

Total Stone Ridge faculty: 122
Upper School faculty: 57
Upper School faculty holding

- Master's degrees: 43
- Doctoral level: 12

Welcome to Upper School at Stone Ridge!

This brochure provides you with a brief overview of the rich course offerings in the Upper School at Stone Ridge. More specifically, you will find detailed descriptions of the exciting courses available to First Academics. To register for your classes, please complete the registration form found under Academics at stoneridgeschool.org/newfamily. If you have any questions, please contact the Upper School office at **301-657-4322 x1182**.

Academic Program Overview

True to our Sacred Heart foundation, grade levels in the Upper School are referred to by the traditional titles of: Grade 9 – First Academic; Grade 10 – Second Academic; Grade 11 – Third Academic; Grade 12 – Fourth Academic.

Daily Schedule

School begins at 8:00 a.m. The schedule will consist of four eighty-minute classes each day, with breaks or lunch scheduled between each class. Classes 1–4 will meet on days ACEG, and classes 5–8 will meet on days BDFH. Each class will rotate throughout the daily schedule. Extra time will be allotted for specific math and science AP classes as dictated by the AP curriculum. Students are dismissed at 3:15 p.m.

Graduation Requirements

To be awarded a Stone Ridge diploma, a student must complete the required program of study as outlined above left, earning a minimum of twenty-five units. Of those units, twenty-two are earned in academic subjects and two are earned through satisfactory participation in Social Action, according to the criteria of this program.

The program of study constitutes a set of minimum requirements. The student's abilities and interests, as well as the admission requirements of colleges she is considering, guide her in planning a four-year program to suit her needs.

First Academic Course of Study

Introduction to Literature and Composition

This course familiarizes students with a variety of genres, including lyric poetry, drama, and the coming-of-age novel. Students are introduced to fundamental principles of critical reading and effective writing and begin to explore the kinds of writing that will be practiced and sharpened over the next few years: personal narrative, creative writing, and literary analysis. Selected authors may include Sandra Cisneros, Lorraine Hansberry, J. D. Salinger, Mary Shelley, and William Shakespeare, among others.

World History I

This course includes an introduction to global religions and explores the political, cultural, economic, and geographical forces that impacted the development of Africa, Asia, Europe, the Middle East, and the Americas from c. 1000-1800 CE. The course introduces students to analytical thought and writing, basic research, and the complexities of analyzing and evaluating sources in order to form a narrative or draw broader conclusions.

Physics I

Physics I exposes students to the basic principles and concepts that describe the physical world. This survey course covers mechanics, electricity, magnetism, waves and energy, and the course features many hands-on lab and class activities. This course is designed to help students appreciate and understand the workings of the physical world and will be of both a conceptual and mathematical nature. Students will be introduced to a basic scientific problem-solving approach familiar to all sciences, and will be prepared for critical scientific and mathematical skills needed for chemistry the following year.

Scripture: An Introduction to the Holy Bible

The texts of the Bible emerged through divine inspiration in diverse social and complex political and theological contexts. We examine biblical texts with the tools of scholarship, employing methods of literary, historical, and theological investigation. We engage the primary texts in critical and constructive assignments. We highlight the vibrant contexts in which we interpret the Bible today by examining contemporary challenges faced in interpreting biblical literature in our society. A textbook, lecture outlines, and focused assignments help guide our understanding. We emphasize our Catholic heritage in studying revelation, divine inspiration, and liturgical contexts for sacred scripture.

Mathematics

First Academic students will be appropriately placed in a math course based on a placement test.

Algebra I

This course provides the algebraic foundations necessary for the understanding of all higher math. Students are expected to enter the course with solid pre-algebra skills, though a review will be provided on each topic. Students will learn the fundamental principles behind algebraic expressions and equations and apply them to work with inequalities, systems of equations, linear graphing, operations on polynomials, and problem solving. Emphasis will be placed on justifying processes through mathematical rigor, a cornerstone of all mathematical endeavors. Students will gain confidence that using a methodical and clearly articulated approach will lead to consistently reliable results.

Geometry

Geometry topics include angle relationships, perpendicular and parallel lines and planes, polygons, congruency, similarity, circles, special quadrilaterals, area of two-dimensional figures, coordinate geometry, the Pythagorean Theorem, special right triangles, surface area, and volume of three-dimensional figures. Proofs and constructions related to the topics are included. Students work collaboratively as well as independently to master the material. **Prerequisite:** Algebra I and/or departmental approval/placement test.

Geometry with Analysis

This course parallels the standard Geometry course but is more demanding and extends the study to include understanding relationships in space, coordinate proofs, and transformational geometry. More formal proofs are included. This course is for the serious mathematics student who wants a challenge or to step up to mathematics at the honors level. Algebra I topics are infused in the curriculum both as review and as an integrated part of the course. **Prerequisite:** This course is only open to Grade 9 students who have placed out of Algebra I by way of the Algebra Placement Test.

Upper School Course Offerings

ENGLISH

Introduction to Literature & Composition
Global Perspectives in English Literature
Honors Global Perspectives in English Literature
Literature of the Americas
Creative Writing
Women's Literature from Around the World
Literature of the African Diaspora
Speculative Fiction
AP English Language and Composition
AP English Literature and Composition
Journalism

HISTORY & SOCIAL STUDIES

World History I and II
United States History
AP U.S. History
Honors Economics
AP African American Studies
AP U.S. Government and Law
AP Psychology
AP Art History
Social Sciences for Social Problems

MATHEMATICS

Algebra I
Geometry
Geometry with Analysis
Algebra II
Algebra II with Analysis
Honors Algebra II with Precalculus
Precalculus
Honors Precalculus with Analysis
Honors Precalculus with Differential Calculus
Introduction to Calculus
AP Statistics
AP Calculus AB
AP Calculus BC
AP Computer Science Principles
AP Computer Science A

Upper School Course Offerings

WORLD LANGUAGES

French I–IV
AP French Language and Culture
Honors French Seminar
Spanish I–IV
Spanish for Heritage Speakers
AP Spanish Language
AP Spanish Literature
Latin I–IV
AP Latin
Honors Latin Seminar

VISUAL & PERFORMING ARTS

Foundations of Visual Arts
Foundations of Digital Arts & Visual
Communications
Drawing and Painting I
Ceramics I
Media Arts I
Photography I
AP Drawing: Year I and Year II
AP 2D Art & Design: Year I and Year II
AP 3D Art & Design: Year I and Year II
Drama I–II
Introduction to Technical Theater
Chorus
Band
Music Theory, History, and
Appreciation
String Ensemble

Algebra II

Algebra II gives students a solid foundation in the study of the real number system, linear, quadratic and polynomial relations and functions, exponential, logarithmic, radical and rational functions, and complex numbers. It includes the study of transformations of functions. Where possible, topics are explored graphically, algebraically, and numerically. **Prerequisite: Geometry and departmental approval.**

Algebra II with Analysis

Algebra II with Analysis covers all of the topics included in Algebra II. Additional topics covered include: transformations of functions as applied to real-world applications and to the study of data analysis techniques to find the best-fit model. An introduction to matrices as a way of organizing and displaying data and a means of solving systems of equations will be covered. The emphasis in this course is on an increased depth in analyzing and describing relationships. Topics are explored graphically, algebraically and numerically, where possible. **Prerequisite: Geometry and departmental approval.**

Honors Algebra II with Pre-calculus

This course is more demanding than Algebra II with Analysis. It is for the serious student who has a firm grasp of Algebra I and is ready for a challenging course. All standard Algebra II topics are covered, but approached from a higher order thinking level equivalent to that expected of the precalculus student. The intent is to prepare the student with the analytical experience necessary for the study of AP Calculus BC. The course focuses on polynomial, exponential, logarithmic and trigonometric functions from algebraic and geometric perspectives. **Prerequisite: Geometry and departmental approval.**

World Languages

The minimum requirement for graduation is three consecutive years of one foreign language. Students who have successfully completed the first year level in middle school and who continue and successfully complete the next two levels of the same language finish their foreign language requirement at the end of their Second Academic year. First Academic students will be appropriately placed in a foreign language based on a placement test and teacher recommendations.

French I

This course develops the use of fundamental language skills used in listening, speaking, reading and writing. Students learn to express ideas in the present, the past and the near future using basic structures and vocabulary related to daily-life topics. Extensive communicative practice is provided through varied oral and written exercises in meaningful situations and personalized contexts. Students build cultural awareness of the French-speaking world through videos, music, presentations, readings and discussions. The class is conducted in French.

French II

This course completes the study of fundamental grammar structures and vocabulary begun in French I. Students learn to express ideas, actions and thoughts in the present, past, and future. Students also learn to express opinions, recommendations, doubts and preferences in the subjunctive mood. Students continue to learn about Francophone culture, civilization, geography and traditions. Communication, both written and spoken, is practiced using authentic materials that provide cultural information and insights. The class is conducted in French. **Prerequisite: French I or by department approval.**

Spanish I

This course develops the use of fundamental language skills used in listening, speaking, reading and writing. Students learn to express ideas in the present, the past and the near future using basic structures and vocabulary related to daily-life topics. Extensive communicative practice is provided through varied oral and written exercises in meaningful situations and personalized contexts. Students build cultural awareness of the Spanish-speaking world through videos, presentations, readings and discussions. The class is conducted in Spanish.

Spanish II

This course completes the study of fundamental grammar structures and vocabulary begun in Spanish I. Students learn to express ideas, actions and thoughts in the present, past, and future. Students also learn to express opinions, recommendations, doubts and preferences in the subjunctive mood. Students continue to learn about Spanish-speaking culture, civilization, geography and traditions. Communication, both written and spoken, is practiced using authentic materials that provide cultural information and insights. The class is conducted in Spanish. **Prerequisite: Spanish I or by department approval.**

Spanish for Heritage Speakers

This class is designed for students who have experience with the Spanish language in an informal setting. The purpose of this course is to provide students with formal study of the syntax, spelling, accentuation and written conventions of the Spanish language. In addition to developing a solid grammatical foundation, students will learn the essential concepts of critical reading and effective writing by examining essays, poems, stories, and short films from a variety of Hispanic authors and thinkers. The level of the course will be tailored to meet the needs of the students. This course is taught in Spanish. **Prerequisite: Placement test and departmental approval.**

Latin I

This course is an introduction to Latin culture, history, syntax, and vocabulary. In addition to their language study, students investigate Roman culture, mythology, and literature. Particular emphasis is given to the daily lived experience of Romans from diverse social classes and backgrounds, as well as Latin's role as a root language for English and other Romance languages. During this course, students will read Book I of the Suburani series as well as several supplementary primary and secondary sources. The goal of Latin I is to provide a solid foundation for further study and to foster an appreciation of Latin's influence on the English language and the modern world.

Latin II

This course is the second year of the Latin curriculum. In the first year, students developed a foundation of Latin culture, history, syntax, and vocabulary. In addition to their language study, students investigate various aspects of Roman culture, mythology, and literature. Particular emphasis is given to the daily lived experience of Romans throughout the Empire; from Carthage to Ephesus and everything in between. During this course, students will read Book II of the Suburani series as well as several supplementary primary and secondary sources. The goal of Latin II is to provide a solid foundation for further study in Latin III and to foster an appreciation of Latin's influence on the English language and the modern world. **Prerequisite: Latin I or by departmental approval.**

Upper School Course Offerings

PUBLICATIONS

Journalism
Yearbook

SCIENCE

Physics
Chemistry
Honors Chemistry
AP Chemistry
Biology
Honors Biology & Biological Inquiry
Computational Design
Honors Molecular Biology &
Biotechnology Lab
AP Computer Science Principles
AP Environmental Science
AP Physics
Anatomy and Physiology
Explorations in Engineering
Introduction to Bioorganic Chemistry

THEOLOGY

Scripture: Introduction to the Bible
Catholic Traditions and History
Christian Morality
Bioethics
Major World Religions
Social Justice and Catholic
Teaching

Upper School Course Offerings

ATHLETIC OPTIONS

Fall Sports

Cross Country — One Team
Field Hockey — Junior Varsity, Varsity
Soccer — Junior Varsity, Varsity
Tennis — Intramural, Junior Varsity, Varsity
Volleyball — Junior Varsity, Varsity
Equestrian — Varsity

Winter Sports

Basketball — Freshmen, Junior Varsity, Varsity
Swimming & Diving — Junior Varsity, Varsity
Ice Hockey — Junior Varsity, Varsity
Squash — Intramural, Varsity
Winter Track — One Team

Spring Sports

Golf — Beginner, JV, Varsity
Lacrosse — Junior Varsity, Varsity
Softball — Junior Varsity, Varsity
Tennis — Intramural
Track & Field — One Team

Annual Fitness Options

Spin, Yoga, Strength & Conditioning,
and Fitness Walking

Independent Study in Physical Education

Students can earn PE Credit for participating in activities that Stone Ridge does not offer, examples include: ballet, rock climbing, figure skating, rowing, martial arts, etc.

Visual and Performing Arts

Foundations of Visual Arts

This course is designed to introduce various art mediums, techniques and styles. Students will learn the basic elements and principles of art and design, and use the combination of these building blocks to guide their work. Units of study may include drawing, painting, printmaking, ceramics, photography, digital media, collage, and textiles. Students will also develop their critical thinking skills through the creative problem-solving process, as they learn to assess the quality of their own artwork as well as those of other artists.

Foundations of Digital Arts & Visual Communications

This course is an introductory course to digital principles of art and design concepts as a visual communications tool, which is approached in the context of the constantly changing digital world. Students will learn: traditional photography, digital photography, graphic design, typography, video, including interview and motion graphics. Students will also develop their critical thinking skills through the creative problem-solving and decision-making process, as they learn new digital concepts.

Drama I

Drama I is designed to allow students to explore the world of the theater and all its components. The preparation and performance of dramatic scenes and monologues, playwriting exercises and theatre attendance help students to identify and develop internal and external personal resources, to participate in artistic collaboration, to relate theatre to its social context and to form aesthetic judgments.

Chorus

This course is open to all Upper School students who are interested in developing their vocal skills, abilities and musicianship through the study of choral literature from all major periods in music history. Concepts of proper vocal care and technique, sight reading, vocal development, music history and the building of confidence in the voice will be a focus of the course. An emphasis on developing both the student's individual sound and the group's ensemble sound will be emphasized throughout the year as we prepare for concerts, festivals and liturgies. Pianists may audition for this class as an accompanist.

Note: Students are required to participate in mandatory performances to earn credit for this course. This course may be repeated for credit up to four years.

Concert Band

This course is open to all Upper School students who play a band instrument. Students will develop musicianship and ensemble skills through the study of concert band repertoire from various styles and genres. In addition, music appreciation, history and theory are integrated into the curriculum to provide well rounded knowledge and musicianship. Special attention will be paid to developing artistry and creative expression and all elements necessary for successful ensemble experiences. Students will participate in performances throughout the year and have adjudication and master class/workshop opportunities. **Prerequisite: Permission of the instructor is required to enroll in this course.**

Note: Students are required to participate in mandatory performances to earn credit for this course. This course may be repeated for credit up to four years.

String Ensemble

This course is open to all Upper School students who play an orchestral string instrument (violin, viola, cello, bass). String Ensemble is designed to engage students in a variety of musical styles and genres for rehearsals, formal and informal performances. In addition, music appreciation, history and theory are studied in association with repertoire and units of study. Special attention will be paid to developing artistry and creative expression. Students will participate in performances throughout the year and receive adjudication and master class/workshop opportunities on occasion.

Note: Students are required to participate in mandatory performances to earn credit for this course. This course may be repeated for credit up to four years.

Introduction to Technical Theater

This course is open to all Upper School students with little or no previous experience in technical theater. Learning objectives will focus on the basics of the theatrical production process, including: roles of the production process; tool use and scene shop safety; introduction to carpentry and stagecraft; basics of electrics, sound and costume/wardrobe; and fundamentals of working on stage crew. The course workload will include class meetings, assigned readings, and active participation in technical preparation for department productions. Permission from parents to use power tools will be required. This can be taken for repeat credit.

