

BLAIR ACADEMY

2023-2024 COURSE CATALOG



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GENERAL REQUIREMENTS

The Blair diploma is granted to students whom the faculty and Head of School judge to be members in good standing of the School community and who have met the following requirements for graduation.

Students will be eligible for a Blair diploma only if they have been enrolled for at least one full academic year, including senior year, and if they have successfully completed 54 units of academic work for four-year students, 51 units for three-year students, and 48 units for two- and one-year students. For each year that the student has attended Blair, he or she must complete three units of physical activity. For the 9th, 10th and 11th grades, two of the three units must be in the form of interscholastic team sports or the approved equivalent thereof. Only under very unusual circumstances will the faculty, through the Athletic Committee, make exceptions to these requirements.

The academic year is divided into two semesters and a student receives 1.5 units of credit for the successful completion of a single semester and 3 units of credit for a successfully completed yearlong course. No partial credit is awarded.

The units of academic work must include the following:

English: 3 units of English each year—*total 12 units for a four-year student.*

Mathematics: 9 units in mathematics—*Algebra I, Geometry and Algebra II or their equivalents.*

Languages: 6 units in a modern or classical language—two years of one language.

Sciences: All students must present 6 units in a laboratory science—*3 units in Biology and 3 units in Chemistry, Robotics or Physics. All 9th graders will take either Biology or Biology Honors for their science. Students repeating the grade and who have high school credit for an acceptable, full-academic-year biology lab science and a grade of B or better (or its equivalent) will not have to meet this requirement.*

History: 6 units in U.S. History/Modern European History—*see department requirement regarding two-year U.S. History courses taken at another school.* In addition, four-year students will have taken Global Issues for a total of 9 units.

Fine & Performing Arts: Units of fine and/or performing arts as described in the additional requirements below (*see also the section on Fine & Performing Arts*).

Religion & Philosophy: Units of religion or philosophy as described in the additional requirements below (*see also the section on Religion & Philosophy*).

REQUIRED FOR 9th GRADERS ONLY, IN ADDITION TO THE GENERAL REQUIREMENTS

3 units of Global Issues

1.5 units of religion or philosophy, to be completed by graduation

.5 units of Design and Maker Space

.5 units of Health and Wellness

Arts: Prior to graduation, four-year students must take three semesters of art. At least one of these semesters must occur in grades 9-10 and at least one in grades 11-12. In addition, at least one of the three courses must be a performing art and at least one a fine art.

Sciences: All 9th graders will take either Biology or Biology Honors for their science. Students repeating the grade and who have high school credit for an acceptable, full-academic-year biology lab science and a grade of B or better (or its equivalent) will not have to meet this requirement. In addition, four-year students at Blair must present 9 units of science, at least 6 units must be laboratory sciences (*3 units in Biology and 3 units in Chemistry, Robotics or Physics*).

REQUIRED FOR 10th GRADERS, IN ADDITION TO THE GENERAL REQUIREMENTS

1.5 units of Blair Leadership (LEADS)

REQUIRED FOR NEW 10th GRADERS ONLY, IN ADDITION TO THE GENERAL REQUIREMENTS

1.5 units of religion or philosophy, to be completed by graduation

3 units of fine or performing arts, to be completed by graduation

REQUIRED OF NEW 11th GRADERS, IN ADDITION TO THE GENERAL REQUIREMENTS

1.5 units of religion or philosophy, to be completed by graduation

1.5 units of fine or performing arts to be completed by graduation

REQUIRED OF NEW 12th GRADERS & POSTGRADUATES

Irrespective of other requirements, these one-year students must carry a minimum of five courses each semester, with a minimum of four of those courses in the form of full-year courses.

SPECIAL 12th GRADE REQUIREMENTS

No matter how many acceptable credits a re-enrolling student may already have, a returning senior must carry no fewer than 6 units per semester, none of which may take the form of an independent study (*see below*).

Returning seniors must pass the minimum academic load of 13.5 units for the year, satisfactorily complet-

ing 3 units of English and 9 units of electives. The remaining 9 units must be in full-year courses and the total schedule must represent the equivalent of a year's work in three different disciplines. A postgraduate is considered to be a member of the senior class and must fulfill all requirements, academic and non-academic, that seniors must meet, as well as those listed in the "Required of New Seniors & Postgraduates" section of the course catalog.

In addition, seniors or postgraduates who elect to take a Senior Project must complete it satisfactorily to graduate. Participation in commencement exercises by individual seniors who do not successfully complete the appropriate pattern of disciplines and a minimum of 13.5 units of credit will be determined by the faculty.

INDEPENDENT STUDY

Students in the 11th or 12th grades wishing to take a course that the School does not offer or a course that does not fit their schedules may propose an independent study as a sixth course, or in rare cases as a seventh course. Students select a faculty advisor with whom they work to create a written proposal. The proposal must make clear the purpose, process and outcomes of the independent study and receive the written approval of the faculty member, the student's advisor and class monitor, the relevant department head(s) and—finally—the Dean of Academics. *A student may undertake only one independent study per semester.*

ADVANCED PLACEMENT (AP) COURSES & EXAMS

The examination or portfolio is an integral part of an AP course and its final focus and is required if a student is to receive credit for the course at the college level.

The requirement to take the AP exam will be determined by academic departments. For courses in which the AP exam is required, students must sit for the exam to get credit for the course on their transcript.

In any case where a student withdraws from an AP class during the college application process, a corrected transcript will be issued to each of the student's colleges.

The fee for AP examinations is approximately \$110 per examination.

COMPUTER SCIENCE & APPLICATIONS

Mr. Samuel Adams, chair

Department Requirements

All courses in the department require that a student own a laptop computer that runs in the English language.

■ **ROBOTICS: FULL YEAR**

Offered in conjunction with the science department, Robotics meets the lab-science requirement for a physical science. This full-year course explores the combination of electronics and computer science, covering robotic history and the construction of working autonomous robots (which requires design and programming skills). Topics include components of robotic systems, sensors and feedback loops. An important aspect is the design of computer algorithms that intelligently make use of sensor information describing the environment and purposefully act upon it. Students are required to have their own laptops. The course is strictly limited to 10 students. *Prerequisite: Completion of Biology or Biology Honors. Three units.*

■ **ADVANCED PLACEMENT (AP) COMPUTER SCIENCE: FULL YEAR**

This yearlong course follows a nationally standardized curriculum for computer science and seeks to prepare students who work well independently for the AP computer science exam in May, which is a requirement for the course. This class is taught in the JAVA programming language, now used in the AP curriculum. The course will include programming projects culminating in a single, larger project by the end of the year. Projects may include graphics and an introduction to game design. AP students should expect to spend time working through sample test problems outside of the class. *Concurrent enrollment in a math class at Precalculus Honors level or higher is required. Permission of the department required. Three units.*

■ **POST-ADVANCED PLACEMENT (AP) COMPUTER PROJECTS: FULL YEAR**

As the title suggests, this advanced course takes up project development where the AP Computer Science course ceased. Based on larger and more technical projects, Post-AP Computer Projects challenges students to work independently with increasing creativity and be clearly adept at installing and configuring software. *Prerequisite: Completion of AP Computer Science and concurrent enrollment in a math class at the AP Calculus level or higher. Permission of the department required. Three units.*

■ **INTRODUCTION TO PROGRAMMING: SEMESTER**

This semester-long computer science offering is designed for students new to programming. The course focuses on the basics of the Python programming language and centers on project-driven work aimed at deepening students' conceptual understanding. *No prior experience is required. 1.5 units.*

■ SOFTWARE DESIGN: SEMESTER

This semester-long computer science offering builds on the concepts introduced in the introductory class or might represent a good starting point for students with programming experience, regardless of the programming language they have pursued previously. Students will complete more complex and involved projects, including one of their own choosing, to continue their learning in the discipline. *1.5 units.*

■ ADVANCED SOFTWARE DESIGN: SEMESTER

This semester-long computer science offering allows students to continue the work they began in the software design course. *Approval of the instructor required. 1.5 units.*

■ REAL-WORLD ROBOTICS: SEMESTER (NOT OFFERED IN 2023-24)

This semester-long class offers hands-on experiences using real-world robotics. Students explore and use commercially available robots to learn about their capabilities and limitations. They will identify and develop a purposeful use of real-world robots and demonstrate the benefit the robots provide at the conclusion of the course. *Open to all students. 1.5 units.*

ENGLISH

Mr. James Moore, chair

Department Requirements

To graduate, students must take English each year and in each term of the 12th grade. Placement in honors sections of English is by performance in the preceding year.

■ ENGLISH 1: FULL YEAR

English 1 is designed to develop the reading and writing skills of 9th-grade students while fostering a knowledge and appreciation of literature. The course is organized around several units in which students read and write extensively. In a typical year, they will read a Shakespeare play and a modern novel, a selection of short stories and an assortment of poetry. In addition, there is a short but formal introduction to public speaking, which examines key skills and rhetorical devices and provides students with the opportunity to deliver and record oral presentations to their classmates. Vocabulary enrichment, public-speaking opportunities and punctuation study are also integral to the year's work. *Three units.*

■ ENGLISH 2: FULL YEAR

English 2 builds on the various components of English 1 as it continues to strengthen reading, writing and study. After an initial review of essay elements and of good writing practices, students study units on poetry, the short story, Shakespeare and the novel. In a typical year, authors have included Lahiri, Vonnegut, Irving and Dickens. Emphasis is on reading critically and writing persuasively. Written work demands personal response, close literary analysis and a familiarity with literary criticism; vocabulary enrichment and grammar study are integral parts of the course. *Prerequisite: English 1. Three units.*

■ ENGLISH 3: FULL YEAR

English 3 is an exploration of American literature from the pre-Revolutionary era to the present, combined with an intensive focus on improving students' reading and writing skills. Along the way, students consider the questions: Who gets to be an American and who decides? What makes someone "American?" What are the values and ideas that we have come to understand as uniquely American? How has American literature been used to influence, critique and applaud society? Texts from some of the greatest American writers are read and discussed to understand the American experience from its early beginnings. Knowledge gained from a concurrent U.S. history course enhances students' understanding of texts and helps them make interdisciplinary connections between history and literature. *Prerequisite: English 2. Three units.*

■ ENGLISH 3 ADVANCED PLACEMENT (AP) LITERATURE: FULL YEAR

This course is designed for students with a demonstrated talent for language and a heightened interest in literature. The course undertakes a close reading of works by writers as diverse as Donne, Wordsworth, Hurston, Shelley, Dostoyevsky, Miller and Shakespeare, placing a yearlong emphasis on form and content: The mechanics of composition—whether in a student's writing or in the author being studied—receive as much attention as the ideas being discussed. Extensive grammar, sentence structure and vocabulary study occur throughout the year. *Department approval required. Prerequisite: English 2. Three units.*

■ ENGLISH 4 ELECTIVE/ADVANCED PLACEMENT (AP) LANGUAGE: FULL YEAR

Blair's English elective program enables 12th-grade students to select from a range of courses during the fall and spring terms while preparing for the AP Language exam. Students may choose to enroll in a two-term thematic sequence taught by one teacher or to take advantage of the opportunity to explore different topics with different teachers. Note: The Capstone and Narrative Writing electives do not include AP Language preparation and so do not carry the AP Language designation.

English 4 elective titles include *The Meaning of Life*, *African-American Literature*, *Women's Gothic Literature*, *Finding God* (which also counts toward the religion/philosophy requirement), *Three Shakespeare Plays*, *Modern Drama*, *Horror Fiction*, *Great New Books: Contemporary Fiction*, and *Monsters and Miracles*. Many of these courses, as well as a film analysis course, will be offered in 2023-24. *Three units.*

■ ENGLISH CAPSTONE I: SPRING ONLY

The Capstone elective is an opportunity for students to spend the first semester conceiving, developing, completing and presenting a project focused on a strong personal interest. The core of the work in Capstone is a substantial writing project that could take almost any literary form; potential projects include, but are not necessarily limited to, a collection of short stories or personal essays, the script for a one-act play or a short film, a collection of poetry, or a longer academic piece that explores the works of a particular author, artist, musician or an artistic movement. *Available to 11th- and 12th-grade students; 10th graders with departmental permission. 1.5 units.*

■ NARRATIVE WRITING I: FALL ONLY

The Narrative Writing fall elective offers 11th- and 12th-grade students the opportunity to delve into the narrative in the form of creative writing. With three individual units, the course explores the nuances of writing profiles on others, of reflecting on the self in a memoir and of creating a short story as the semester draws to a close. A workshop-based class accompanied by the works of Hemingway, Sedaris, Christie and more, Narrative Writing will cultivate within students a love of writing various short-form pieces. *Available to students in the 11th and 12th grades only. 1.5 units.*

FINE & PERFORMING ARTS

Mrs. Jennifer Pagotto, chair, PERFORMING ARTS

Mrs. Katherine Sykes, chair, FINE ARTS

Department Requirements

Four-year students: Prior to graduation, four-year students must take three semesters of art. At least one of these semesters must occur in the lower grades (9-10) and at least one in the upper grades (11-12). In addition, at least one of the courses must be a performing art and at least one must be a fine art.

Three-year students: Prior to graduation, three-year students must complete two semesters of art.

Two-year students: Prior to graduation, two-year students must complete one semester of art.

One-year students: Prior to graduation, one-year students carrying only four full-year courses must complete either a semester of art or a semester of philosophy/religion.

Alternatives: Four-year students may, in the 11th or 12th grade only, substitute the successful completion of a full school year of instrumental lessons for one semester of their three-semester requirement. No credit awarded.

Alternatively, four-year students may, in the 11th or 12th grade only, substitute the successful completion of a major participation in a school theatre production for one semester of their three-semester requirement. No credit awarded. *Approval of the performing arts department chair required.*

Only one substitution is allowed in a student's career.

FINE ARTS

Two-Dimensional

■ TWO-DIMENSIONAL ART: LEVELS 1 & 2 (SEMESTER)

Two-Dimensional Art 1 students will be exposed to the fundamentals of drawing and painting while developing personally meaningful works. Students will work from life, as well as their imaginations, usually with an eye toward a theme or issue that is relevant to contemporary art. In level 2, students will build on the repertoire of skills presented in 2D Art 1. Some lessons at level 2 may include more robust considerations of color, mixed-media and the figure. *1.5 units.*

■ ADVANCED DRAWING: SEMESTER

Advanced Drawing builds on the work of the level 2 Two-Dimensional Art course. Students draw from life, as well as create images from their imagination, usually with an eye toward a theme or issue that is relevant to contemporary art. There is an emphasis on experimentation. Many Advanced Drawing students are preparing for the Advanced Placement (AP) Portfolio or AP Drawing courses. *May be taken more than once for credit. Prerequisite: Two-Dimensional Art, level 2. 1.5 units.*

■ **ADVANCED PAINTING: SEMESTER**

Advanced Painting builds on the work of the level 2 Two-Dimensional Art course. Students paint from life, as well as create images from their imagination, usually with an eye toward a theme or issue that is relevant to contemporary art. There is an emphasis on experimentation. Many students in Advanced Painting are preparing for Advanced Placement (AP) Portfolio or another AP-level course. *May be taken more than once for credit. Prerequisite: Two-Dimensional Art, level 2. 1.5 units.*

■ **PHOTOGRAPHY 1: SEMESTER**

In Photography 1, students use a 35-mm manual camera and black-and-white film to gain familiarity with the parts of the camera, darkroom equipment, film developing, and printing, presentation and the elements of good film exposure (including aperture, shutter speed and film speed). The course consists of hands-on activities that guide students to an understanding of what makes a good photograph and how it can be a form of self-expression. *A 35-mm manual camera is strongly recommended for this course. 1.5 units.*

■ **DIGITAL PHOTOGRAPHY: SEMESTER**

This course will introduce the fundamentals of digital photography. Emphasis and instruction will focus on four areas: digital photo-editing software, Adobe Photoshop and Lightroom, digital asset management, advanced composition and lighting techniques. Students will also experiment with smartphone-based photography, editing software and social-media publishing platforms. Examples of modern and historical photography will shape regular class discussions. Students will present their work and comment on classmates' work during regular critique sessions. A 35-mm manual digital SLR camera and a portable hard drive are required for this course. *Prerequisite: Photography 1. 1.5 units.*

■ **ADVANCED ANALOG PHOTOGRAPHY OR ADVANCED DIGITAL PHOTOGRAPHY: SEMESTER**

Advanced Photography follows Photography 1 or Digital Photography. Students continue to work at achieving proper exposure using either a 35-mm manual or a digital SLR. The course focuses more on creating a picture with strong composition, working with alternative light sources and exploration of different photographic techniques. Students are evaluated specifically on three essential factors: composition, subject matter and technical facility. Ideally, each student in Advanced Photography will develop a consistent body of work, presenting a continuous theme or developing theme, which will exhibit increasing technical mastery. Personal responsibility for time management, research, and exploration of the history of photography and technique is an expectation of the course. Students are to record ideas in a visual journal. *Either a 35-mm manual or a digital SLR camera and a tripod are required for this course. Prerequisites: Photography 1 or Digital Photography and teacher approval. May be taken more than once for credit. 1.5 units.*

■ **ART PORTFOLIO: FULL YEAR OR SEMESTER**

This non-Advanced Placement (AP) course is for serious art students who wish to master essential skills and techniques while also developing ideas for their own work. The course will allow students to begin creating ideas and working toward the AP Portfolio class and have a body of work for their college portfolio. *By permission of the instructor only. Three units per year; 1.5 units per semester.*

■ GRAPHIC DESIGN & ADVANCED GRAPHIC DESIGN: SEMESTER

Graphic design students create digital works of art that promote the development of digital design skills in Adobe Illustrator and Photoshop, as well as an understanding of design concepts and fundamentals. The projects are designed to be personally meaningful while fostering creative thinking, project planning, time management and problem solving. The next course in the sequence, Advanced Graphic Design, challenges experienced students to expand their vision and techniques. *1.5 units.*

■ ARCHITECTURE: FULL YEAR

This course emphasizes the development of accurate drawing and visual presentation skills, the ability to visualize three-dimensional forms, multiview drawing, basic geometric constructions, isometrics and perspective work. As well as applying these skills to the design of shelter, students will explore the principles of architectural design such as the relationships of space and human activity. Students will work with drafting instruments. *Preference given to fourth-year students. Three units.*

■ ADVANCED ARCHITECTURE: FULL YEAR

This course is a continuation of Architecture 1 and explores broader design concepts while building on the basic visualization and presentation skills introduced in the previous course. Coursework includes rendering, model building and site considerations as supplements to the design process. A discussion of the nature of contemporary architecture is included. *Prerequisites: Architecture 1. Preference given to fourth-year students. Three units.*

■ INTRODUCTION TO FILM PRODUCTION: SEMESTER

In Introduction to Film, students are immersed in all aspects of digital film production, from script to screen. With an emphasis on storytelling, projects are designed to develop basic skills in screenwriting, directing, cinematography, sound design and editing. In addition, students hone their cinematic literacy through guided peer critiques. *Owning a digital camcorder is not a requirement. 1.5 units.*

■ ADVANCED FILM PRODUCTION: SEMESTER

Building on the skills learned in Introduction to Film, students have the opportunity to pursue projects independently while focusing on either film or animation. Time management is an essential skill for this course. Ideally, students will have the tenacity to stick to their ideas and conclude the semester with three to five finished pieces. Students work on Apple computers, using industry-grade software. *Owning a digital camcorder is not a requirement. Prerequisite: Introduction to Film. May be taken for credit more than once. 1.5 units.*

■ ART FOR SOCIAL CHANGE: SEMESTER

This course is a collaborative experience designed to raise awareness about critical issues within our Blair “bubble” and beyond. Students create and participate in a wide variety of art forms to foster dialogue and action in the community, which empowers them to understand art as a catalyst for change. *1.5 units. Course also fills the religion/philosophy requirement.*

Three-Dimensional

■ CERAMICS 1 & 2: SEMESTER

The goal of this course is to expose students to the process of ceramic art making. Students will make hand-built, wheel-thrown and sculptural pieces, as well as learn to glaze their projects using high-temperature and Raku glazes. *1.5 units.*

■ ADVANCED CERAMICS: SEMESTER

Advanced Ceramics is a continuation of the basic course and focuses on creating more complicated forms, appendages to pots (spouts, lids, knobs and handles), and refined clay techniques. Students will work on refining the form, shape, height and weight of their pots. In addition to experimenting with glazes, students are encouraged to employ decorative techniques such as faceting, scraffito, stamping, texturizing, carving and incising. Successful completion of the course requires a sketchbook. *Prerequisite: Ceramics 1. 1.5 units.*

Advanced Placement (AP) & Independent Study Opportunities in Fine Arts

■ ADVANCED PLACEMENT (AP) ART HISTORY 1: SURVEY OF ART HISTORY (FULL YEAR)

Art History is the study of a visual culture that reflects complex social, economic, religious and political factors. Students electing AP Art History will engage the material in depth, learning specific characteristics and stylistic traits of 250 seminal works of art. Evaluation will be based on examinations, oral presentations and projects. Previous background in history, such as Modern European History, U.S. History and/or European History is helpful. *Three units.*

■ ADVANCED PLACEMENT (AP) STUDIO ART PORTFOLIO: FULL YEAR

AP Portfolio is a college-level course in which students prepare art portfolios for submission to the College Board's studio art 3D, 2D or painting/drawing design portfolio. The course is based on completing the two sections of the portfolio: sustained investigation and quality. In all, students create approximately 24 original works that demonstrate mastery of materials and techniques, as well as a strong personal style and point of view. Students should expect to spend considerable time outside of class preparing their work for submission in May. *By permission of the instructor only. Three units.*

■ INDEPENDENT STUDY IN ART: SEMESTER

Independent study offers an opportunity for advanced and highly motivated students to work on special projects not normally within the scope of the art curriculum. Individual programs of study and course obligations will be developed in conjunction with art department faculty. *Prerequisites: Previous study in the area in which independent study is to be undertaken. Permission and approval of the independent study from the teacher and department chair. 1.5 units.*

PERFORMING ARTS

Theatre

■ THEATRE 1: SEMESTER

The course is designed to teach the rudiments of acting. A primary focus is the development and interpretation of a character through use of body, voice and imagination. Coursework entails the presentation of wide-ranging performance projects with emphasis on scene work. *1.5 units.*

■ THEATRE 2: SEMESTER

This course allows students to explore and improve their performance techniques. A primary focus is the development and interpretation of character through script analysis into dramatic presentation. Coursework entails the presentation of a wide range of performance pieces from the classical tradition to the modern. The goal of this course is for the student to develop an understanding of thousands of years of theatrical traditions and break away from simply playing in the style of realism. This course will focus a great deal on what the class as a whole can bring to a common understanding of different eras, from the Greeks to the present. *1.5 units.*

■ THEATRE 3: SEMESTER

This course is geared toward the advanced theatre student, particularly for those interested in directing a student-run production or writing a play to be performed at Blair. Students will work closely with teachers to help design the curriculum based on their goals and will ultimately prepare material to perform during a future semester. *Open to students in the 11th and 12th grades who have previously taken a theatre course. 1.5 units.*

Music: General Classroom

Music offerings at Blair are scheduled into the academic day, allowing more structured time for rehearsal. There are offerings for academic credit in both choral and instrumental music. These courses are graded. Other offerings, not for credit, are scheduled into the school day and may, in certain circumstances, meet part of the School's performing arts requirements.

■ ADVANCED PLACEMENT (AP) MUSIC THEORY: FULL YEAR

This course is designed for the serious music student who has mastered knowledge of scales, key signatures and pitch/rhythm reading, and has the ability to recognize and perform pitch and rhythm patterns. To be admitted to the class, students must demonstrate this knowledge through their work in one of Blair's performance ensembles, successful completion of at least one semester of Digital Music or by passing an exam before the fall semester begins. Information regarding the exam is available from Blair's Director of Instrumental Music. *Prerequisites: In addition to the aforementioned exam, at least one year's study of an instrument or voice. By permission of the instructor only. Three units.*

■ DIGITAL MUSIC & ADVANCED DIGITAL MUSIC: SEMESTER

Students will create, record and produce their own music in this course. By the end of the semester, they will have learned how to use music software including Logic ProX, Finale and GarageBand to compose songs in various popular styles, and produce digital- and professional-quality recordings in the audio recording studio in Blair's Chiang-Elghanayan Center for Innovation and Collaboration. *Preference given to fourth-year students. 1.5 units.*

■ INDEPENDENT STUDY IN MUSIC: SEMESTER

Students with prior background in music are offered an opportunity to work on individual projects, the scope and content of which will be structured in cooperation with music faculty members. Academic credit will be given for the successful completion of a music independent study. *Prerequisites: Prior study in the project area, as well as permission of the teacher and department chair. 1.5 units.*

Choral Music

■ BLAIR ACADEMY SINGERS: FULL YEAR

This is the School's main vocal performing ensemble. The majority of its performances take place on campus (at seasonal concerts and festivals, as well as Christmas Vespers, among many others). While the course meets during the school day, extended rehearsals prior to performance, often in the evening, will be an occasional requirement. Students may audition for an honors section of the group; for those selected, participation in the honors group will require some extra rehearsal time. *Three units.*

■ RELIGIOUS ROOTS IN CHORAL MUSIC: FULL YEAR

This course allows students to continue their participation in the Blair Academy Singers and meets the School's religion and philosophy requirement. The course adds homework to the usual rehearsal time, work that takes the form of special lectures, assigned readings and viewings, written reflections and—in the second semester—a final project that is presented to the entire group. *Open only to third- and fourth-year students who participated in Singers during all their semesters at Blair. 1.5 units.*

Instrumental Music

Instrumental music is open to all students who have at least three years of experience with an instrument and who wish to continue their study of music through ensemble playing. Ensembles may require extended rehearsals prior to performances, often in the evenings.

FULL-YEAR ENSEMBLES

■ SYMPHONY ORCHESTRA: FULL YEAR

This ensemble is available to all students who have at least three years' experience playing string, wind or percussion instruments. Students focus on various aspects of ensemble playing, which are studied primarily through our performance literature that includes a wide range of classical and contemporary genres. Performances include (but are not limited to) seasonal concerts, Christmas Vespers, and off-campus performances and field trips. Students may audition for an honors section of this ensemble; for those selected, participation in the honors group will require some extra rehearsal time. *Additional evening rehearsals prior to concerts are required. Three units.*

■ JAZZ & ORCHESTRA: FULL YEAR

This section is designed for the wind, brass or percussion player who wishes to participate in a variety of instrumental ensembles—Jazz Ensemble, Chamber Orchestra and Symphony Orchestra. These students focus on many aspects of musicianship through the study of a variety of classical and jazz repertoire. Performances include (but are not limited to) seasonal concerts, off-campus performances and field trips. *Additional evening rehearsals prior to concerts are required. Three units.*

■ JAZZ ENSEMBLE: FULL YEAR

Guitarists, bassists and pianists must audition for this ensemble, which comprises the rhythm section of Blair's Jazz Ensemble. The group's primary focus is the study of various styles within the jazz genre and learning techniques for improvising and ensemble playing. Performances include (but are not limited to)

seasonal concerts, off-campus performances and field trips. *Additional rehearsals prior to concerts are required. Three units.*

■ RELIGIOUS ROOTS IN ORCHESTRAL MUSIC: FULL YEAR

This fourth-year-only course runs concurrently with the Symphony Orchestra and Jazz Ensemble. The course, which meets the School's religion and philosophy requirement while allowing students to continue to participate in their chosen ensembles, adds homework to the usual rehearsal time in the form of special lectures, readings, viewings, written reflections and—in the second semester—a final project that is presented to the entire group. *Open only to fourth-year students who participated in an instrumental ensemble during all their semesters at Blair. 1.5 units.*

SEMESTER ENSEMBLE

■ CHAMBER ENSEMBLE: SEMESTER

This ensemble is available to advanced music students who are interested in working in chamber group settings. Similar to an independent study, students will meet with the instructor once or twice a week, and otherwise work independently. *Permission of the instructor required. 1.5 units.*

HISTORY

Mr. Jason Beck, chair

Department Requirements

Global Issues is required of all 9th-grade students; Modern European History is required of all three- and four-year students and is taken in the second and third years, always preceding the required U.S. History course. Students entering Blair who have taken the first year of a two-year high school U.S. History course/requirement must complete the Modern European History course if they have not already taken a similar course. Depending on the nature of the U.S. History course at the former school, these students may have to complete the single-year U.S. History class at Blair.

■ **GLOBAL ISSUES: FULL YEAR**

This course focuses on a singular question for the entire year: How should the world respond to the challenges and opportunities of globalization? Topics include the changing demographics of the world, the rise of China and globalization of trade, energy and the environment, and recent history and current developments in Russia. In addition to a variety of texts, students follow current affairs in the region of study, attend lectures presented on Tuesday nights by the Society of Skeptics and read historical novels. A range of electronic media is used in instruction. Basic academic skills such as note taking, reading a newspaper, studying techniques and writing are incorporated into the course, as are a number of geography and computer skills. *The course is required of all 9th graders. Three units.*

■ **MODERN EUROPEAN HISTORY: FULL YEAR**

Most students will take Modern European History in their second year, as much of its material serves as a foundation for the U.S. History requirement. The course is a European-focused survey of the Western tradition. Modern European History focuses on major historical themes and the development of student skills (such as note taking and essay writing) through various student projects and activities, including a research paper. Films, literature and primary documents further complement study. *Three units.*

■ **U.S. HISTORY: FULL YEAR**

This course surveys and analyzes significant events and issues in U.S. history, beginning with the first colonial settlements. The main goals are for students to develop a sense of historical continuity; to appreciate the interrelationships of the past, present and future; to be aware of current issues facing the United States; and to engage in the practice of critical reading and thinking. Special attention is given to the development of public speaking, research and writing skills. Students will produce a significant research paper on a topic of their choosing. *Prerequisite: Modern European History or its equivalent. Three units.*

■ **ADVANCED PLACEMENT (AP) U.S. HISTORY: FULL YEAR**

Designed to approximate an introductory college course in U.S. history, this highly rigorous course prepares students to take the AP examination. Successful completion of this exam can result in college credit. In addition to acquiring a firm knowledge of historical themes and basic chronology, students will develop their analytical abilities. This course demands that students are self-motivated and willing to actively participate in class discussion. *Prerequisites: Modern European History or its equivalent and departmental permission. Three units.*

■ **ADVANCED PLACEMENT (AP) EUROPEAN HISTORY: FULL YEAR**

AP European History is rigorous in terms of its assigned reading, essay writing and analysis of basic historical source documents. Wide-ranging class discussion and debate, independent reading of current events and specific preparation for the May AP examination will be pursued throughout the year.

Prerequisites: This course follows Modern European History and AP U.S. History. Students receiving a 3 or better on the AP U.S. History exam automatically qualify for this course. All others will need departmental permission. Three units.

■ **INTELLECTUAL HISTORY HONORS: EXISTENTIALISM & MODERN THOUGHT (FULL YEAR)**

Using a variety of texts, this course explores the role of the individual in shaping historical narrative and asks fundamental questions about the good, the beautiful and the true. In doing so, the class seeks to address how these ideas and questions are reflections of the historical narrative of their times. The curriculum revolves around readings, films, discussion and writing. Students are expected to be active participants in each class and will be graded accordingly. Authors include Sartre, Camus, Kierkegaard, Nietzsche, Melville, Dostoyevsky, Fromm and Arendt. *Three units.*

■ **ADVANCED PLACEMENT (AP) COMPARATIVE GOVERNMENT/POLITICS: FULL YEAR**

AP Comparative Politics provides students with an understanding of the diversity in world political systems, as well as an introduction to the frameworks political scientists use to compare those systems. Topics of focus include each nation's political structure and recent changes in the political arena, society and citizenry. The course covers political behavior and the sources and outcomes of authority and power. Students consider the impact of culture, especially religion, on a country's political system, as well as its economic and public policies. The class also studies the U.S. government—both as a framework for understanding government and also because it is unavoidably a bias point for American citizens.

Prerequisite: Completion of U.S. History. Preference given to those 12th-grade students who have also completed a course in either European History or Modern European History. Three units.

■ **RACE IN AMERICA: FULL YEAR**

This course examines the question “What is race?” through the lens of American history. Other questions addressed include: How have definitions of whiteness changed over the course of American history? How do racial classifications in America differ from those elsewhere? Is race biological or cultural? Issues considered include immigration, labor, crime, wealth, education, and ever-shifting legal identifications along racial and ethnic lines. Discussions are wide-ranging, drawing on a diverse array of readings and independent student review of current events. *Prerequisite: Completion of a course in U.S. History or departmental approval. Three units.*

■ **AMERICAN GOVERNMENT: CONSTITUTIONAL LAW (FULL YEAR)**

This introduction to the U.S. Constitution through the analysis of landmark Supreme Court opinions focuses on a host of controversial topics, including freedom of speech, freedom of religion, abortion, the death penalty, affirmative action, search-and-seizure law, gun control, gay marriage and many more. There is also a heavy emphasis on current events, derived from *The New York Times*. *Prerequisite: Completion of U.S. History. Preference given to 12th-grade students and to those 12th-grade students who have also completed a course in either European History or Modern European History. Three units.*

■ ADVANCED PLACEMENT (AP) MICROECONOMICS: FULL YEAR

The full-year AP Microeconomics course provides a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the larger economic system. The course, which prepares students for the AP Microeconomics exam, places primary emphasis on the nature and functions of product markets and includes the study of factor markets and of the role of government in promoting greater efficiency and equity in the economy.

Prerequisites: Completion of U.S. History or its equivalent; enrollment in a mathematics course and completion of Precalculus with a 4.5 or better GPA. Three units.

LANGUAGES

Mrs. Joyce Lang, chair

Department Requirements

To graduate, students must complete 6 units of study in one foreign language.

■ **SPANISH 1, SPANISH 2 & SPANISH 2 HONORS: FULL YEAR**

The first two years of Spanish support and develop the five Cs of language study: communication, culture, connections, comparisons and communities. Components of the program, including interactive lessons and other resources, offer a variety of materials, many of which are technology-based. These address and support a range of student strengths, while encouraging and reinforcing intercultural learning skills, critical thinking, creative problem solving and the ability to work cooperatively in the target language. The two-year sequence introduces and emphasizes all basic grammar and a variety of cultural traditions representative of the vast array of Spanish-speaking places. Language acquisition begins with reading and listening comprehension and progresses from basic to more complex written and oral expression. Spanish 2 Honors will advance at a faster academic pace, involve more homework and include higher expectations of comprehension and expression. *The language department will determine recommendations. Three units.*

■ **SPANISH 3 & SPANISH 3 HONORS: FULL YEAR**

These courses reinforce the grammar skills and basics of the language developed in the first two years of study, while also seeking to develop communication almost entirely in the target language. Reading current, authentic materials provides exposure to modern issues impacting Hispanic cultures. Technology continues to be a major component of the program. Vocabulary activities provide the fundamentals useful for interaction on a daily basis. Creative writing projects each semester allow students to focus on writing skills as they demonstrate their grasp of multiple tenses, moods and grammatical structures. The difference between the honors and regular sections involves the length and nature of various assignments, choice of readings and expectations for proficiency. *Prerequisites: Spanish 1 and 2. Placement by current teacher. Three units.*

■ **SPANISH 4 & SPANISH 4 HONORS: FULL YEAR**

These courses seek to improve further the proficiencies developed in intermediate Spanish classes. Spanish will be used almost exclusively in class, for it is expected that students at this level will be committed to developing fluency. Readings will involve excerpts from great writers of Hispanic literature, as well as from essays and articles intended for Spanish-speaking populations. Throughout the year, students will be assigned research, projects and presentations pertaining to a range of social and political topics. Native-language films provide exposure to the varying accents and dialects of the Spanish-speaking world. Intense preparation for the AP language exam will be a principal focus for all honors-level students. All students at this level, regardless of designation, are expected to have mastered the essentials of the language prior to beginning the course. Students must be committed to functioning at an advanced level in each of the four skill areas: reading, writing, speaking and listening. *Recommendation for these courses is made by the current teacher. Three units.*

■ **HONORS SPANISH LITERATURE & CONVERSATION: FULL YEAR (NOT OFFERED IN 2023-24)**

This course is intended for students who have taken Spanish 4, 4H or 4AP. Students should be strong speakers and decent writers of the target language who maintain an eagerness to explore a range of prose

and poetry from Spain and Latin America and a desire to grow in their knowledge and understanding of the cultures of Spain and the Americas. Selected authors include Martí, Allende, Lorca, Márquez, Neruda, Borges, de Burgos, Cisneros and Fuentes, among others. Discussion and writing are in the target language, and students will be expected to analyze and comment upon the works at hand. Conversation around the history and cultures of the Spanish-speaking world will take precedence in the spring term. *Prerequisites: As noted in the course description. Three units.*

■ **ADVANCED PLACEMENT (AP) SPANISH LANGUAGE & CULTURE: FULL YEAR**

AP Spanish Language and Culture is an advanced course focusing intensely on communication through three modes: presentational, interpretive and interpersonal. The course is divided into six cultural themes that provide structure to our inquiry and is designed around the curriculum provided by the College Board. *Prerequisite: The satisfactory completion of Spanish 4 or 4H, or the permission of the teacher and department chair. Three units.*

■ **FRENCH 1 & FRENCH 2: FULL YEAR**

The first two years of French focus on building vocabulary and developing proficiency in the four basic skills of listening, speaking, reading and writing. Vocabulary is organized by theme, addressing everyday topics and situations. Communication skills are developed through an immersive classroom environment as students work together in paired and group activities. In addition, students acquire cultural sensitivity and awareness of everyday life of French-speaking peoples through exposure to a variety of materials and resources in addition to the primary text. *Three units.*

■ **FRENCH 3 & FRENCH 3 HONORS: FULL YEAR**

These courses are designed to reinforce and expand upon the grammar and vocabulary skills acquired in the first two years of language study. Students are challenged to synthesize prior knowledge with new material and begin to communicate their ideas using more complex and detailed sentence structures. Students read and discuss a short novel in the target language and also read literature selections from a variety of Francophone countries to increase cultural literacy. Several technology tools are used to enhance vocabulary acquisition and to strengthen oral comprehension and expression. Communicative activities such as creative writing tasks and scaffolded conversations help students internalize the language, enabling them to act more independently and successfully in new cultural situations. The difference between the honors and regular sections involves the length and nature of various assignments and expectations for proficiency. *Prerequisites: French 1 and 2. Three units.*

■ **FRENCH 4 & FRENCH 4 HONORS: FULL YEAR**

These courses seek to further improve the proficiencies developed in intermediate French classes across the language domains of reading, writing, listening and speaking. These courses begin to prepare students to function within a French-speaking community. Readings from literature and current articles provide the basis for role-plays, debates and discussions, presentations and essays. Video clips, films and recorded materials expose students to a wide range of accents and views of the French world today. Intense preparation for the AP language exam will be a principal focus for all honors-level students. All students at this level, regardless of designation, are expected to have mastered the essentials of the language prior to beginning the course. *Recommendation for these courses is made by the current teacher. Three units.*

■ **ADVANCED PLACEMENT (AP) FRENCH LANGUAGE & CULTURE: FULL YEAR**

AP French Language and Culture is an advanced course focusing intensely on communication through three modes: presentational, interpretive and interpersonal. The course is divided into six cultural themes that provide structure to our inquiry and is designed around the curriculum provided by the College Board. While advanced grammar revision and vocabulary extension will be present, the driving force behind this course is Francophone content in the contemporary world. *Prerequisite: The satisfactory completion of French 4 or 4H, or the permission of the teacher and department chair. Three units.*

■ **CHINESE 1: FULL YEAR**

Chinese 1 is a basic, introductory course in standard Chinese (Mandarin) intended for students with no exposure whatsoever to the languages of the area. The course guides students through the development of four basic skills (aural comprehension, speaking, reading and writing), while also emphasizing functional use of language. Instruction begins with learning pinyin, the Romanization system of Chinese pronunciation. Students then progress to learning vocabulary, grammar and how to write 200 Chinese characters. *Three units.*

■ **CHINESE 2: FULL YEAR**

This course is a continuation of the work begun in Chinese 1. Learning advances beyond the survival level to include more extensive classroom interaction and systematic grammar development. Students are asked to use learned vocabulary to express their own thoughts, respond to simple statements and maintain face-to-face conversations dealing with daily life. Students learn to write their thoughts in sentence and paragraph form, as well as master another 200 characters. *Prerequisite: Chinese 1. Three units.*

■ **CHINESE 3 & CHINESE 3 HONORS: FULL YEAR**

While continuing to strengthen grammar, syntactical structure and vocabulary, these courses also emphasize the ability to communicate effectively with native speakers. The class textbook is *Integrated Chinese: Level 1, Part 2*. In addition to textbook and project work related to Chinese history and literature, students dialogue in class and continue to develop their writing skills. The Chinese 3 Honors course covers the material in more depth, focusing on characters and vocabulary, with higher expectations for spoken and written performance. *Prerequisite: Chinese 2. Three units.*

■ **CHINESE 4 & CHINESE 4 HONORS: FULL YEAR**

These courses are for the advanced student's expansion of vocabulary and grammar. Students read and translate articles from Chinese sources (newspapers, poems and websites). They participate in a month-long research project on Chinese dynasties and present a PowerPoint presentation in Chinese. The Chinese 4 Honors course covers the material in more depth, focusing on characters and vocabulary, with higher expectations for spoken and written performance. *Prerequisite: Chinese 3 or Chinese 3 Honors. Three units.*

■ **CHINESE 5: ADVANCED PLACEMENT (AP) CHINESE LANGUAGE & CULTURE: FULL YEAR**

This course is designed to prepare advanced students for the AP Chinese language and culture exam. Students develop their skills in reading, writing, listening and speaking by reading and discussing news articles about Chinese events and culture, engaging in group projects and presentations, and analyzing literature and poetry. This course is conducted completely in Chinese. *Prerequisite: Chinese 4 or Chinese 4 Honors. Three units.*

■ LATIN 1: FULL YEAR

Latin 1 introduces students to fundamentals of the Latin language and its history. Students read adapted stories in Latin of increasing complexity designed to introduce them to the history and culture of Ancient Rome. The course emphasizes frequent comparisons between English and Latin grammar, as well as English derivations and vocabulary roots. Through their study of Latin, students increase their proficiency in both languages and deepen their awareness of language as a medium for thought and communication. Films, projects and online activities are also incorporated. *Three units.*

■ LATIN 2: FULL YEAR

This second-year course emphasizes the completion of the study of Latin grammar, the broadening of students' Latin vocabulary and knowledge of English derivatives. Continued study of mythology and history will be supplemented by films and research projects. In the second semester, students will begin to translate authentic Latin by authors such as Pliny and Ovid. *Three units.*

■ LATIN 3: FULL YEAR

This course is devoted to completing students' understanding of the complex elements of Latin grammar and syntax and to developing the ability to read unadulterated Latin. Students translate Caesar's Commentaries on the Gallic War, a work useful for both its clarity of prose and its considerable political and historical interest. Students then begin a detailed reading of Cicero's First Catilinarian Oration, with attention paid to the development of oratory in the Roman world. The year concludes with an introduction to Latin poetry through the works of the late Republican poet C. Valerius Catullus. *Prerequisites: Latin 1, 2 and teacher approval. Three units.*

■ LATIN 4: FULL YEAR

This advanced reading course allows students to deepen their knowledge of the Latin language and Roman culture through close study of one or more influential texts. Authors may include Virgil, Horace, Ovid, Sallust, Tacitus, Pliny and Petronius. In addition to translation, students apply historical and literary analysis to their readings. *Teacher approval required. Three units.*

■ ADVANCED PLACEMENT (AP) LATIN 5: FULL YEAR

Latin 5 is an advanced literature course for students who have completed the normal four-year Latin curriculum or for exceptional students who wish to pursue a more rigorous course of study. Authors to be read vary depending on student interest. Possibilities include Virgil, Horace, Seneca, Sallust, Plautus and more. Students will be expected not only to translate at a high level of accuracy, but also to engage texts using all the tools of traditional classical philology. *Teacher approval required. Three units.*

■ ANCIENT GREEK 1: FULL YEAR (NOT OFFERED IN 2023-24)

This course introduces students to the ancient Greek spoken in Athens at its height (530-350 B.C.). The class centers on creating a strong foundation of grammar and vocabulary in the language while learning about the culture of those who spoke it millennia ago. Students will read unadulterated ancient Greek from authors such as Xenophon, Plato and Herodotus. While a background in Latin is helpful, it is not required. *Prerequisites: Completion of at least the third level of study of a non-English, non-native language; completion of at least nine units of study in the same non-English language at the 4.5 (or its equivalent) level or better in each year. Three units.*

MATHEMATICS

Ms. Danyelle Doldoorian, chair

Department Requirements

Algebra 1, Geometry, Algebra 2 or their equivalents.

Technology: A graphing calculator will be required in AP Calculus AB/BC. A scientific calculator is recommended at all other levels.

Placement: Returning students select their courses for the subsequent academic year in February. Placement in those courses is dependent on the student's final grade in their current course. New students are placed over the summer by the Dean of Academics in conjunction with the department chair. In rare cases, usually for students looking to reach Calculus in the 12th grade, summer work is permitted to advance a program of study, with the sole exception that summer work in Algebra 2 will not be recognized. Students should discuss their plans with the department chair to receive approval and to understand the parameters under which any work will be done.

■ **ALGEBRA 1: FULL YEAR**

Algebra 1 is a full-year introduction to algebra. Students work with radicals, rational expressions, factoring and the quadratic formula to solve linear and quadratic equations. Linear and polynomial functions and their graphs are studied extensively, as are linear combinations and linear equalities. *Placement by department. Three units.*

■ **GEOMETRY: FULL YEAR**

Geometry is a full-year course stressing both the discovery of Euclidean topics and concepts, as well as applications. In the first term, the postulates and theorems of Euclid, revised and restated to agree with contemporary mathematical thinking, form the basis for the study of geometry as a mathematical system. Students make extensive use of technology, such as GeoGebra, to understand and apply key concepts. Later in the year, the emphasis is on applications, including ratios and similarity, triangle trigonometry, circles, areas and volumes. *Prerequisite: Algebra 1. Three units.*

■ **GEOMETRY HONORS: FULL YEAR**

Geometry Honors is an accelerated course in Euclidean geometry. Blair's Geometry Honors is Euclidean, but not traditionally so. The area and perimeter of plane figures, volume of solids and special right triangles form the heart of the syllabus. Compass and straight-edge constructions are infused throughout the course. Students need a solid background in the algebra of linear and quadratic equations prior to taking the course. Returning Blair students with a final grade of 5.5 or higher in Algebra 1 may select this course if they evince a strong interest in mathematics. *Prerequisite: Algebra 1. Three units.*

■ **ALGEBRA 2: FULL YEAR**

The course reviews and extends the study of algebra begun in Algebra 1, with the expectation that students have mastered the fundamentals of geometry. Students learn to solve polynomial equations over the set of complex numbers, study rational and exponential functions, learn to manipulate logarithms and investigate circular trigonometry. *Prerequisites: Algebra 1 and Geometry or Geometry Honors. Three units.*

■ ALGEBRA 2 HONORS AB: FULL YEAR

Algebra 2 Honors follows a syllabus similar to that of Algebra 2, but with more rigor. The standard Algebra 2 curriculum is completed early in the spring term so that the remainder of the year can be devoted primarily to intermediate topics. Students in Algebra 2 Honors AB should expect to progress to Precalculus Honors AB the following year with placement in AB Calculus the year after that. Returning Blair students must earn a final grade of 4.5 in Geometry Honors or 5.5 in Geometry to be placed into the course. *Prerequisites: Algebra 1, Geometry Honors and placement by the department. Three units.*

■ ALGEBRA 2 HONORS BC: FULL YEAR

Algebra 2 Honors BC is the first course in a three-year sequence leading to BC Calculus. Students study trigonometric and logarithmic functions, conic sections, sequences and series, all with an eye to the calculus that such study supports. Limits inform the course throughout the year. The course's fast pace and level of rigor are appropriate for students planning to pursue engineering or pure or applied math. Returning Blair students must earn a final grade of 5.5 in Geometry Honors to be placed into the course. *Prerequisites: Algebra 1, Geometry Honors and placement by the department. Three units.*

■ PRECALCULUS: FULL YEAR

Precalculus is the final course in a student's preparation for non-Advanced Placement (AP) Calculus. Topics studied include linear, quadratic, polynomial, rational, logarithmic and trigonometric functions. In addition, students study sequences and series and conic sections during the spring semester. *Prerequisite: Algebra 2 and departmental approval. Three units.*

■ PRECALCULUS HONORS AB: FULL YEAR

Precalculus Honors AB follows the same syllabus as that of Precalculus. Additional topics include sequences, series and limits. Students successfully completing this course will be competent to take Advanced Placement Calculus AB the following year. To this end, problems requiring significant creative thought and extensive algebraic rigor will be practiced frequently. Returning Blair students must earn a final grade of 4.5 in Algebra 2H AB or 5.5 in Algebra 2 to be placed into the course. *Prerequisites: Algebra 2 and departmental approval. Three units.*

■ PRECALCULUS HONORS BC: FULL YEAR

Precalculus Honors BC is the first of a two-year sequence leading to the Advanced Placement (AP) Calculus BC exam in May of the following year. It covers elementary functions in depth, including exponential, logarithmic, polynomial, rational and trigonometric functions. Emphasis is placed on graphing. In addition, topics from triangle trigonometry, sequences and series, polar coordinates and limits are studied. In the spring, students follow the AP syllabus and study differential calculus, including continuity of functions; the definition of the derivative; differentiation algorithms; relative and absolute extrema problems; and related rates of change. Returning Blair students must earn a final grade of 5.0 in Algebra 2 Honors BC or 5.5 in Algebra 2 Honors AB to be placed into the course. *Prerequisites: Algebra 2 and departmental approval. Three units.*

■ MATHEMATICAL MODELING & APPLICATIONS: FULL YEAR

Mathematical reasoning is an essential part of daily life at both the individual and societal level. Quantitative literacy, or the familiarity with how data is collected and understood, is an essential skill for students to develop. This course will focus on the way math is used to draw and support decision-making in a variety of disciplines including statistics, probability and finance. *Open primarily to 12th-grade students who have completed Precalculus or equivalents. Can be taken concurrently with Calculus or in place of Calculus. Three units.*

■ CALCULUS: FULL YEAR

Calculus is a non-AP course in differential and integral calculus of a single variable. The focus of the course is on applications of differentiation (related rates, applied minimum and maximum problems) and integration (area under a curve, volumes of solids of revolution and rectilinear motion) rather than mathematical theory. It is not expected that this course will substitute for the first semester of calculus at the university level. *Prerequisites: Precalculus and departmental approval. Three units.*

■ ADVANCED PLACEMENT (AP) CALCULUS AB: FULL YEAR

Calculus AB closely follows the syllabus prescribed by the College Board for Advanced Placement Calculus. The material covered is fundamental to the first semester of a traditional college calculus program. Students study both the theory and the practical applications of differential and integral calculus. Trigonometric, exponential and logarithmic functions will be studied extensively. Instructors emphasize graphing, and a graphing calculator will be used extensively. Students are prepared to take the AP exam in May. *Prerequisites: Precalculus or Calculus and departmental approval. Three units.*

■ ADVANCED PLACEMENT (AP) CALCULUS BC: FULL YEAR

Calculus BC is a continuation of Precalculus Honors BC (AP Calculus A). Students who complete this course will have learned the equivalent of an entire year of college calculus. The curriculum includes all the material normally studied in Calculus AB including differential and integral calculus of a single variable, as well as sequences and infinite series, parametrically defined curves and polar functions. In addition, several theoretical topics not required by the College Board's syllabus are presented to provide an overview to the foundations of rigorous mathematics. Students in the course are prepared to take the AP exam in May. Summer work is required of all enrolled students, and they will need a graphing calculator for the course. *Prerequisites: Precalculus or Calculus and departmental approval. Three units.*

■ ADVANCED STATISTICS: FULL YEAR

Advanced Statistics provides a high-level introduction to the major concepts employed in collecting and analyzing data. Describing patterns, sampling, random probability and statistical inference form the core of the topics investigated in the course. At the end of the year students may sit for the Advanced Placement Statistics exam, although they are not required to do so. The course may be taken only as a second math class if a student has not already passed a course in Calculus. *Prerequisite: Algebra 2H-BC, Precalculus Honors AB or BC or any Calculus course. Three units.*

■ MULTIVARIABLE CALCULUS: FULL YEAR

Multivariable Calculus is the equivalent of a college third-semester calculus course. It expands upon the study of calculus of a single variable that forms the basis of the Calculus BC curriculum. Topics include partial differentiation, multiple integration and Green's Theorem. *Prerequisites: AP Calculus BC and departmental approval. Three units.*

■ **NUMBER THEORY & PROOFS: FULL YEAR** (*NOT OFFERED IN 2023-24*)

Number Theory is designed for the students who plan to major in mathematics in college. Students will spend half the year investigating different types of rigorous mathematical proofs on a number of topics. During the second semester, students will begin the study of elementary number theory. *Prerequisites: AP Calculus BC and departmental approval. Three units.*

■ **LINEAR ALGEBRA: FULL YEAR**

Linear algebra, a core subject in any sequence of college-level mathematics courses, is the study of linear equations and linear transformations. It is applicable to several other branches of mathematics as well as to various fields of science, engineering and computing. It is also an ideal course in which to foster abstract mathematical thinking and recognition of logical proof. To begin this course, students will consider multiple dimensions and be introduced to vectors, matrices and elementary matrix operations. Subsequent topics covered will include solving linear systems, vector spaces, linear transformations, linear independence, basis, determinants, eigenvalues and eigenvectors. *Prerequisites: AP Calculus BC and departmental approval. Three units.*

RELIGION & PHILOSOPHY

Department Requirements

All students entering Blair in the 9th, 10th or 11th grades must complete 1.5 units in religion or philosophy before graduation.

■ INTRODUCTION TO ETHICS: THE ART OF LIVING (SPRING ONLY)

Philosophy gets a bad rap, and not undeservedly. Indeed, much of the time, philosophy seems overly complicated and unnecessarily tedious. Still, there are some philosophers—like Plato—who don't see philosophy as merely a theoretical enterprise, divorced from issues relevant to our daily lives. Rather, Plato saw philosophy as crucial to learning how to live and live well. In this class, students delve into Plato's most famous (and very accessible) writings, and examine how philosophy contributes to the art of living. Plato helps students think through foundational questions about human life and conduct, including: Why should we be moral? How do we become good or virtuous? What does religion or belief in God have to do with deciding the right course of action? What's the nature of the relationship between our individual moral choices and the structures and arrangements of wider society? Students complete short, reflective essays designed to help them think through the many philosophical implications of their everyday beliefs and behaviors. *Open to 9th and 10th graders only. 1.5 units.*

■ WORLD RELIGIONS: VISIONS OF TRANSFORMATION (FALL ONLY)

This course introduces students to the background and concepts of five of the world's major religions: Hinduism, Buddhism, Judaism, Christianity and Islam. The course also provides a foray into indigenous religious traditions, such as that of Native American tribes. Our objective will be to consider the foundational beliefs, practices and worldviews of these religions, as well as the diverse ways these religions correspond to our lives and how we make meaning today. Emphasizing the theme of transformation, something all religions share, instructors pair each religion with films (or film clips) from some of the world's most renowned filmmakers, allowing students to see and experience the artful ways religious ideas have been represented in cinema. *1.5 units.*

■ HUMAN RIGHTS: SEMESTER

This course addresses the global nature of human rights and continues the work of the extracurricular Human Rights Seminar program held in 2018-2019. The course integrates a political, social and historical lens for thinking about human rights issues, and participants in the course play important roles in encouraging dialogue about those topics in the Blair community. *1.5 units.*

■ MINDFUL LIVING: SEMESTER

The class explores what it means to live mindfully through hands-on practices as well as readings, multimedia content, journal writing, self-reflection, class discussion and several research projects. Students endeavor to become more thoughtful versions of themselves—more rooted in the present moment and more connected to the greater good—by better understanding their relationship with the world around them. The one-semester course invites students to participate in meditation, breathwork and other mindfulness practices such as yoga, mindful walking, mindful eating and more—all with the goal of reducing stress and cultivating more patience, acceptance and joy. *Open to 10th, 11th and 12th grades. 1.5 units.*

■ **SCIENCE OF HAPPINESS: SEMESTER** (*NOT OFFERED IN 2023-24*)

The class explores both the meaning and pursuit of happiness as well as the science of positive psychology around its manifestation in our lives. Students investigate the key ingredients to living a happy life through discussion, research projects, readings, multimedia content, journal writing, self-reflection and experimentation in their own lives. The one-semester course engages students in asking essential questions both of themselves and of the world around them as they work to determine what happiness looks like on an individual basis and to consider their part in the collective consciousness. *Open to 10th, 11th and 12th grades. 1.5 units.*

■ **ART FOR SOCIAL CHANGE: SEMESTER**

This course is a collaborative experience designed to raise awareness about critical issues within our Blair “bubble” and beyond. Students create and participate in a wide variety of art forms to foster dialogue and action in the community, which empowers them to understand art as a catalyst for change. *1.5 units. Course can also fill an art requirement.*

SCIENCES

Mrs. Kelly Hadden, chair

Department Requirements

Students will take either Biology or Honors Biology for their 9th-grade science. Students repeating 9th grade, and who have high school credit for an acceptable, full-year Biology lab science and a grade of B or better (or its equivalent), will not have to meet this requirement. Four-year students at Blair must present 9 units of science, at least 6 units of which must be in the laboratory sciences (3 units in Biology and 3 units in Chemistry, Robotics or Physics).

■ **BIOLOGY: FULL YEAR**

The emphasis of this full-year laboratory course is both investigative and conceptual, seeking to address the major topics in biology as they relate to current events and the world around us. Beginning with the scientific method, topics include cell structure and a variety of functions, genetics and biotechnology, evolution, animals and their adaptations, plants and their functions, human anatomy and physiology, and ecology. The course introduces these concepts through the use of real world scenarios of organisms and their interactions in biomes. Students develop critical organizational reading and note-taking skills, as well as analytical skills important to interpreting laboratory data. *Three units.*

■ **HONORS BIOLOGY: FULL YEAR**

Designed for motivated 9th- or 10th-grade students, this course serves as an introductory exposure to major concepts in the field of biology. With an emphasis on research skills, the course covers four major content areas: molecules and cells, heredity and evolution, human anatomy and physiology, and ecology. Science is presented as both a process and a body of knowledge, and the emphasis is placed on learning the skills involved in acquiring, interpreting, analyzing and communicating data. An independent research project and a variety of inquiry lab experiences provide opportunities for students to learn these skills. In addition, instructors emphasize the study skills involved in reading effectively, organizing and presenting information, and reviewing for quizzes and tests. *Three units.*

■ **FOUNDATIONS OF INTEGRATED SCIENCE RESEARCH (ISR): SPRING SEMESTER ONLY**

This course gives motivated and scientifically curious students an extensive introduction to the world of independent research. Students accepted into this course learn how to read scientific literature, think critically and understand how scientific experimentation is implemented. Emphasis is placed on the review of scientific literature and experimental design. The class explores current scientific research and cutting-edge laboratory techniques. Upon completion, each student will submit a proposal for an integrated research project which may be pursued during the 11th or 12th grades. *Prerequisite: Completion of Biology/Biology Honors or concurrent enrollment in an honors or AP science course. Applications are reviewed and approved by the ISR Committee. 1.5 units.*

■ **INTEGRATED SCIENCE RESEARCH: FULL YEAR**

In this follow-up to Foundations of ISR, students attempt to answer their research question developed during the prior course. This portion of the program grants students a large degree of autonomy, as their class time is almost entirely devoted to the completion of their research project with the support of an internal or external mentor. The course culminates in the presentation of their research. *Prerequisite: Completion of Foundations of ISR. Open to students in the 11th and 12th grades only. Three units.*

■ CHEMISTRY: FULL YEAR

This full-year laboratory-based course is the “standard” for chemical science education at Blair. It introduces the key methods and ideas of chemistry and their applications in our current technologically based society. Students explore methods for analyzing and presenting information useful in understanding debates over the development and use of technical resources. The course involves extensive hands-on “discovery” of chemical principles and methods so that, by year’s end, students have a solid grasp of the challenges and opportunities that connect chemical methods to our economy, culture and environment. *Three units.*

■ HONORS CHEMISTRY: FULL YEAR

This full-year laboratory-based course is designed for strong math and science students. Honors Chemistry covers in depth the complete, standard chemical curriculum. A solid foundation in algebra is essential, and the rigor of this course reflects that of a typical honors-level class. A key theme will be for students to use lab experimentation as an investigatory tool as they develop their data- and record-keeping skills as well as narrative and scientific-communication skills. Successful completion of Honors Chemistry is an excellent foundation for subsequent AP-level science classes. *Three units.*

■ ROBOTICS: FULL YEAR

Offered in conjunction with the computer science department, Robotics meets the lab-science requirement for a physical science. This full-year course explores the combination of electronics and computer science, covering robotic history and the construction of working autonomous robots (which requires design and programming skills). Topics include components of robotic systems, sensors and feedback loops. An important aspect is the design of computer algorithms that intelligently process sensor information describing the environment and purposefully act upon it. Students are required to have their own laptops. The course is strictly limited to 10 students. *Prerequisite: Completion of Biology or Biology Honors. Three units.*

■ PHYSICS: FULL YEAR

This introductory course covers the same concepts found in the Honors Physics course; however, less emphasis is placed on the mathematical development of problem solving and more on the conceptual nature of the subject. Particular focus is placed on Newtonian mechanics. Instructors assign laboratory work as a means of developing a more complete understanding of the principles being studied. *Prerequisite: Concurrent enrollment in Algebra 2 or higher. Three units.*

■ HONORS PHYSICS: FULL YEAR

The Honors Physics curriculum covers many of the basic laws of nature observed in everyday experience. Topics include Newtonian mechanics, waves and oscillations, and electricity. Students perform extensive laboratory work throughout the year. Analytical thinking, mathematical modeling, solid study skills, clear presentation of arguments and organization of materials are emphasized. *Prerequisite: Concurrent enrollment in Algebra 2 Honors or higher. Three units.*

■ ENGINEERING SCIENCE: FULL YEAR

This science elective’s curriculum is for students interested in engineering as a field of study or a possible profession in the future. Several different areas of engineering will be introduced and explored, with an emphasis on project-based work in each theme or area. Analytical thinking, mathematical modeling, clear presentation of arguments and organization of materials are emphasized. *Prerequisite: Concurrent (or past completion) enrollment in Physics. Three units.*

■ ENVIRONMENTAL SCIENCE: FULL YEAR

Environmental Science continues to evolve as a project-based, laboratory course. In this course, students develop a thorough understanding of key ecological principles through the study of energy, food, water, pollution and population. Students complete both group and individual project-based assessments that require them to investigate our impact on and access to natural resources. In completing these real-life studies, students create and evaluate quantitative and qualitative data on which they can base their possible solutions. Although this course is offered through the science department, the topics covered are interdisciplinary, and students are encouraged to think about the economic, political and social implications of resource use and access.

Prerequisites: Biology and Chemistry. Preference given to students in the 12th grade. Three units.

■ MARINE SCIENCE: FULL YEAR

Marine Science introduces students to many aspects of the oceans and fosters an awareness of society's connection to the sea. Material covered includes the physical science of oceans, particularly geology and chemistry, and the biology of various marine ecosystems with extensive focus on the living organisms that populate them. Classes include lectures, lab projects, regular class discussions centered on environmental topics and current events, and a possible spring break research trip. Students write several research papers and give presentations on marine science topics. *Prerequisites: Biology and Chemistry. Preference given to students in the 12th grade. Three units.*

■ ANALYTICAL CHEMISTRY: FULL YEAR (NOT OFFERED IN 2023-24)

In this laboratory-based elective, students are introduced to a wide range of analytical techniques, and they learn how to summarize results in formal scientific reports. The first semester focuses on wet chemistry and uses gravimetric and volumetric analysis to determine answers to a variety of quantitative and qualitative questions. The second semester focuses on more complex instrumentation techniques, including spectroscopy and chromatography. Throughout the year, students learn about the practical applications of the discipline and gain experience in a variety of labs, including the extraction of caffeine in drinks, the separation of plant pigments and the determination of the identities of unknown chemical solutions. Students develop the ability to separate mixtures, isolate chemical compounds and then analyze the quantity of those compounds. The year concludes with an independent project where students pursue an analytical question of their choosing, write a formal laboratory report and create a scientific poster to communicate their findings. *Prerequisites: Successful completion of full-year courses in Biology and Chemistry. Preference given to students in the 12th grade. Three units.*

■ ASTRONOMY: FULL YEAR

In this full-year elective, students learn about our universe, following the work of astronomers such as Copernicus and Galileo as they expanded our view of the cosmos. We work our way outward from Earth to the moon, to our solar system and to our Milky Way galaxy, studying everything from neighboring planets to the formation and inner workings of stars and black holes. Students taking Astronomy learn about modern advances and applications in the field, gaining a cosmic perspective beyond that of a standard physics or Earth science course. This course necessarily involves some evening class work with telescopes and may require some last-minute schedule adjustments due to weather and viewing conditions. Astronomy does not meet the graduation requirement for physical science. *Prerequisites: At least one science course meeting the Blair graduation requirement; completion of a Physics course. Three units.*

■ EPIDEMIOLOGY: FULL YEAR (*NOT OFFERED IN 2023-24*)

Epidemiology introduces basic vocabulary, ideas and methods used in the discipline of identifying and tracking health-related events and states. In short, it poses the questions who, when and where regarding populations of interest. The discipline involves medical or social detective mystery-solving, data collection and statistical analysis, scientific modeling and recommending courses of future action. While tracking diseases occupies some of our time, the course gives students opportunities to explore a wide range of public health-related issues. Following an initial period dedicated to developing some common language, the course revolves around a number of case studies from multiple areas and epochs. *Open to third- and fourth-year students, with preference given to those in their fourth year. Prerequisite: Algebra 2; Algebra 2H is recommended. Three units.*

■ ANATOMY & PHYSIOLOGY HONORS: FULL YEAR

Human Anatomy and Physiology is an honors-level laboratory-based course that investigates the structure and function of the human body. Topics covered include the basic organization of the body and major body systems with a major focus on musculoskeletal, nervous, cardiovascular, digestive and reproductive systems, along with the impact of diseases on maintaining homeostasis of these systems. Studying basic anatomical terminology, biochemical composition of the human body, and major systems of the body, students learn through dissection, lab experiments, reading, video lessons and case studies. One of the goals of this course is to help students master the skills necessary for success in college science classes and various fields of medicine. *Open to those in 11th or 12th grade who have completed a course in Biology. Three units.*

Advanced Placement (AP)

■ ADVANCED PLACEMENT (AP) BIOLOGY: FULL YEAR

Advanced Placement (AP) Biology is built around the four “big ideas” in Biology. Topics covered in depth include ecology, biochemistry, cell structure, respiration, molecular genetics, biotechnology, evolution, plant physiology and photosynthesis. Extensive lab work is integrated into the course to emphasize the wide application of the principles being studied. Students also prepare and are required to sit for the AP exam in May. *Prerequisites: Honors Biology and Honors Chemistry. Enrollment in Chemistry may be concurrent. Three units.*

■ ADVANCED PLACEMENT (AP) CHEMISTRY: FULL YEAR

Advanced Placement (AP) Chemistry focuses on the process of solving complex problems in chemistry, as well as reaching intuitive-level understanding of major chemical themes. The primary topics covered include reaction prediction and stoichiometry, thermodynamics, kinetics, equilibrium, states of matter, atomic and molecular structure and periodic behaviors, intermolecular forces, electrochemistry and chemical bonding. Weekly laboratory work enhances students’ understanding of concepts being studied. *Prerequisite: Completion of Honors Chemistry, unless otherwise permitted by the department (ability to consistently manage large amounts of reading and problem-solving on a timely basis). Three units.*

■ ADVANCED PLACEMENT (AP) PHYSICS C: MECHANICS (FULL YEAR)

AP Physics C: Mechanics focuses extensively on the principles of classical mechanics in a curriculum that requires students to use differential and integral calculus explicitly. Topics in this course include an in-depth introduction to Newtonian mechanics with special attention given to the conservative principles of energy, linear momentum and angular momentum. Extensive laboratory work supplements other assignments done throughout the year. Students also prepare and are required to sit for the AP exam in May. *Prerequisite: Completion of a full year of Calculus or concurrent enrollment in Precalculus Honors BC, Calculus AB or Calculus BC. Three units.*

■ ADVANCED PLACEMENT (AP) PHYSICS C: ELECTRICITY & MAGNETISM (FULL YEAR)

AP Physics C: Electricity and Magnetism is a second-year physics course focused extensively on the principles of electricity and magnetism. This class aims to build on the principles seen during a student's first year of physics and adds topics that culminate with a thorough description of electromagnetic phenomena. The aim of this course is to ensure that students are well versed in the significance of electric and magnetic forces, while placing emphasis on their exposure to essential applications. The lab work is extensive and seeks to offer an in-depth analysis of the ways seemingly dense theoretical concepts are realized in our everyday lives. Like AP Physics C: Mechanics, this course adopts the use of integral and differential calculus exclusively. Students prepare and sit for the AP exam in May. *Prerequisites: Completion of Precalculus Honors BC or Calculus AB or concurrent enrollment in Calculus BC and either AP Physics C Mechanics or the permission of the department chair. Three units.*

■ ADVANCED PLACEMENT (AP) PSYCHOLOGY: FULL YEAR

The AP Psychology course follows the prescribed AP curriculum and prepares students for the May AP exam. Broadly, the course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles and phenomena associated with each of the major subfields within psychology. Students also learn about the ethics and methods psychologists use in their science and practice. The course does not satisfy any science requirement. *Preference given to those in the 12th grade. Prerequisites: Successful completion of a course in Biology and Chemistry. Three units.*

J-TERM

J-term is Blair’s version of an intercession program, an intensive course that Blair students complete in a condensed period of time. J-term is typically scheduled for the first two weeks of January but is subject to change on an annual basis.

Courses during J-term are usually team taught, offering topics intended to spark students’ intellectual curiosity and not otherwise covered in the standard curriculum, and they are graded on a pass/fail basis. Students share their insights and educate the campus community with a required final project that is presented on the last day of the course. J-term courses do appear on a student’s transcript.

On an annual basis, Blair faculty review the J-term offerings to update and design courses to meet the program’s goals. When designing courses, teachers seek to generate high engagement by providing student choice and emphasizing problems that are relevant to students in the real world. Course experiences often include spirited class discussion and hands-on projects, and collaborative problem-solving frequently occurs across grade levels. Travel related to the coursework is common in J-term, as is the opportunity to engage with an expert in the field being studied. The theme of each J-term course is the starting point for students to explore the topic and complete work that reflects all that they have learned during the experience.

Students sign up for J-term courses each November, after the course catalog has been finalized by the faculty. Here is a sampling of the course themes offered in prior years:

- Juneteenth in Mexico: Border Stories—Past, Present & Future
- Food, Culture & Community
- The Immortal Life of Henrietta Lacks
- Modeling Global Changes through Coding
- History Has Its Eyes on You
- Yoga and Mindfulness: Change Your Mindset, Change Your World
- Majority Rules? A Choose-Your-Own Civic Adventure
- Design for the Other 90%

CLASS BLOCK SCHEDULE

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8:30 9:30 A	8:30 9:30 E	8:30 9:30 H	<i>Faculty Professional Time/ Student Sleep In</i> 8:30 – 9:30	8:30 9:30 D	8:30 9:30 B
9:40 10:40 D	9:40 10:40 F	9:40 10:40 B	9:40 10:40 G	9:40 10:40 C	9:40 10:40 F
<i>School Meeting & Advising</i> 10:45 – 11:40	<i>Conference Block & AP Lab Extension</i> 10:45 – 11:10	<i>Chapel</i> 10:45 – 11:20	<i>Student Clubs & AP Lab Extension</i> 10:45 – 11:10	<i>Conference Block</i> 10:45 – 11:20	10:50 11:50 G
11:40 12:40 C1	11:15 12:15 G1	11:25 12:25 A1	11:15 12:15 F1	11:25 12:25 H1	
12:30 1:30 C2	11:55 12:55 G2	11:55 12:55 A2	11:55 12:55 F2	12:30 1:30 H2	
<i>Conference Block</i> 1:35 – 2:10	1:05 2:05 H	1:00 2:00 D	1:05 2:05 E	1:40 2:40 E	
2:15 3:15 B	2:15 3:15 C		2:15 3:15 A	<i>School Meeting</i> 2:45 – 3:15	

Sample of 9th-grade schedule.



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