

THE  
Gregory School

*A Tradition of  
Inspiring Excellence*

Upper School  
Curriculum Guide  
2018—2019

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## GRADUATION REQUIREMENTS

At least 26 units of credit are required for graduation. Upper school students are required to take a minimum of six courses each semester (seven for freshmen). Freshmen and sophomores must take at least five academic courses per semester. Juniors and seniors must take at least four academic courses per semester. The following credits are required:

Subject	Credits
English	4
Fine Arts	1
Languages	3 in the same language (at least two of that language in grades 9-12)
Mathematics	4 (at least three in grades 9-12)
Physical Education	1 (recommended in grade 9)
Science	4 (including three lab sciences)
Social Sciences	4

Arizona universities require a GPA of 2.0 (on a 4.0 scale) in each subject area listed above, except Physical Education.

Faculty monitors progress when a student takes more than the minimum required load of six courses in any given year. Students may petition to take a course for which they do not have the required prerequisites.

Gregory School students have a community service requirement of ten hours per year for freshmen and sophomores, fifteen hours per year for juniors, and sixty hours per year for seniors as part of the Senior Internship. Students must complete this requirement before starting the next school year; community service hours completed in the summer may apply toward the previous school year or the upcoming school year.

## 2018-19 UPPER SCHOOL CURRICULUM OUTLINE

Ninth Grade Courses
<i>Freshmen must take at least seven courses per semester. Five courses must be from the list of required academic courses.</i>
<b>Required Academic Courses:</b> English 1 Math (placed by the department) Biology World Civilizations French, Latin, or Spanish
<b>Required Electives:</b> Physical Education One Elective Course Study Hall (required during first quarter for freshmen and new students)

Tenth Grade Courses
<i>Sophomores must take at least six courses per semester. Five courses must be from the list of required academic courses.</i>
<b>Required Academic Courses:</b> English 2 Math (placed by the department) Chemistry U.S. History French, Latin, or Spanish
<b>One or two Elective Courses</b>

Eleventh Grade Courses
<i>Juniors must take at least six courses per semester. Four courses must be from the list of required academic courses. Five academic courses are recommended.</i>
<b>Required Academic Courses:</b> English 3 Math (placed by the department) Lab Science Social Science French, Latin or Spanish (if requirement not yet met)
<b>One or two Elective Courses</b>

Twelfth Grade Courses
<i>Seniors must take at least six courses per semester. Four courses must be from the list of required academic courses. Five academic courses are recommended.</i>
<b>Required Academic Courses:</b> English 4 or AP English Math (if requirement not yet met; placed by the department) Science Social Science French, Latin, or Spanish (if requirement not yet met)
<b>One or two Elective Courses</b>

## **COURSE PLANNING**

### **Petition to Waive Prerequisites**

Students may petition to waive prerequisites for courses they wish to take. All prerequisites are listed in this guide. A petition form must be filled out by the student, signed by a parent, and given to a teacher who has taught the student in the department the desired course is offered. The teacher will approve or disapprove the petition, and give it to the department head that makes the final decision. The Registrar will contact the student with the decision.

### **PE Exemption**

A ninth grade student who has a consistent, significant commitment to one or more physical activities outside of school may be exempted from the P.E. requirement in order to 1) take six or more academic courses or 2) add a second elective to the required five academic courses and one other elective course. The student and a parent must write and sign a letter requesting the exemption.

### **Placement in Math Courses for Students New to the Upper School**

The goal of math placement is that each student enrolls in the course that is most appropriate to his or her level of skill and knowledge upon enrollment. The math department, in consultation with the admission office and registrar, considers each new student's test scores and academic background to decide an appropriate starting level. New students will be contacted by a school official to schedule math placement exams.

### **Placement in Language Courses for Students New to the Upper School**

The goal of language placement is that each student enrolls in the course that is most appropriate to his or her level of skill and knowledge upon enrollment. It is essential that every student have the necessary foundation for the level in which he or she will study in the upper school; finding the level that is the best fit for each student, both linguistically and developmentally, is one of our primary placement goals. New students will be contacted by a school official to schedule language placement exams after students select courses for the 2018-19 academic year.

## **ACADEMIC PROCEDURES**

### **Course Changes**

Changes may be made after the start of classes only with permission of the administration and, if the student is a junior or senior, the Director of College Counseling.

In the upper school, the teachers of the course(s) dropped and added sign a course change form, and a parent signs.

Students may change courses during the first three weeks of the first semester with no withdrawal shown on the transcript.

After the three-week drop period, a student remains in a full-year course for the entire school year or a semester course for the entire semester, unless there are special circumstances.

Any time after the first three weeks of the first semester, a dropped upper school course shows on the transcript with a "W" for withdrawal. Courses dropped before the end of a semester receive no credit.

Under no circumstances is a student allowed to drop a class in the last two weeks of the semester.

### **Upper School Courses Taken During Middle School**

Gregory School middle school students will receive credit for upper school courses they take during grades six through eight if they continue studying the next level in that department as an upper school student. The grade and credit for upper school classes will be added to the student's upper school transcript. It will be included in the ninth grade and cumulative GPA.

When a student transfers from another school, The Gregory School acknowledges upper school credits earned during middle school, and those credits are counted toward graduation requirements as they were given at the school from which the student transferred. The grades and credits are not added to the Gregory School transcript. The transcript/report card is kept on file.

### **Upper School Transfer Credits**

1. Courses taken by students who transfer to The Gregory School from other American secondary schools:

The Gregory School acknowledges credits issued from other schools, and those credits are counted toward graduation

requirements as they were given at the school from which the student transferred. The grades and credits are not added to the Gregory School transcript. The transcript from the previous school is kept on file.

## 2. Courses taken elsewhere for credit:

*Students at The Gregory School must take each REQUIRED course at The Gregory School. Exceptions may be made for approved courses. Students may also retake courses which they did not pass at The Gregory School with approved courses taken elsewhere.*

*The following policies pertain to courses that students take outside of The Gregory School while they are Gregory School upper school students.*

### a. Courses taken elsewhere for remediation or acceleration:

Courses taken elsewhere must be pre-approved by the department head and administration. If necessary, the department head and/or administration will request a course description listing topics covered, texts used, and a grading scheme for the course.

If a course is approved and repeated at another institution for remediation (i.e., the student did not earn credit in the course taken at The Gregory School), the student must provide official documentation of the final grade. The Gregory School acknowledges credits issued for the course, and those credits are counted toward graduation requirements as they were given by the institution. The grades and credits are not added to the Gregory School transcript. The documentation is kept on file.

If a course that is a prerequisite for another The Gregory School course is approved and taken at another institution for acceleration, the student may be required to take The Gregory School exam for that course. The credit is counted toward graduation requirements, if s/he passes the exam with a grade The Gregory School considers to be a passing grade in the course. The grades and credits are not added to the Gregory School transcript. Student must provide official documentation of the final grade. The documentation is kept on file.

If a course that is not a prerequisite for another Gregory School course is approved and taken at another institution for acceleration, the school acknowledges credits, and those credits are counted toward graduation requirements. The grades and credits are not added to the Gregory School transcript. Student must provide official documentation of the final grade. The documentation is kept on file.

If a course is approved and taken as an independent study, the student may be required to take The Gregory School exam for that course. Credit is given if the grade on the exam is one The Gregory School considers a passing grade for the course, and the student's grade on the exam is the grade s/he receives in the course.

A student that is approved by his/her current Mathematics teacher and the Head of the Mathematics Department to take the BYU online math course must do so in a "timely fashion." Since the BYU course currently takes a minimum of 4-months to complete, students must begin no later than mid-March of the passing academic school year to complete the course by the start of the following academic school year. When a student provides TGS with an official transcript of completion, they will be enrolled in the next Mathematics course offered in the current US Mathematics sequence, as determined by the Head of the Mathematics Department.

### b. Courses taken elsewhere for elective credit:

Courses taken elsewhere must be pre-approved by the department head and administration. The student must provide official documentation of the final grade for the course. The school acknowledges any credit issued for the course, and the credit is counted toward graduation requirements. The grade and credit are not added to the Gregory School transcript. The documentation is kept on file.

## **Upper School Independent Study Courses**

An independent study proposal may be made by a student who has a strong academic record, a demonstrated capacity to work independently, and an unusual degree of scholarly interest in a course that is not available in The Gregory School curriculum. The student must be able to find a Gregory School faculty member willing to help design and supervise an independent study in that area of interest, and then submit a proposal to the Academic Committee for review.

The guidelines for independent studies are as follows:

1. Independent study courses are generally limited to one semester;

2. The student and the faculty member overseeing the independent study must submit a complete proposal to the department head at least one month prior to the beginning of the independent study, unless there are extenuating circumstances;
3. A course available in the curriculum (even if not currently) may not be taken as an independent study;
4. There are two types of independent study courses: those which a student and faculty member develop together that are supervised by the teacher, and those where the faculty member is supervising a student working with an outside instructor on an approved course of study;
5. Normally, a faculty member may supervise only one independent study course in a semester;
6. As a rule, independent study courses are open only to juniors and seniors, but some exceptions can be made through department head approval;
7. All proposals are reviewed and accepted/rejected by the Academic Committee

The proposal from the student and teacher must include the following:

1. Name of the course;
2. Semester in which the course will be offered;
3. Rationale for the course, including personal statement of what the student hopes to gain;
4. A syllabus which describes the material covered, in sequence;
5. A list of meeting times, or a description of when meetings will occur;
6. A list of assignments/tests/presentations/projects with due dates;
7. A description of how student performance is assessed (with rubrics, if applicable), including the weight of each grading category;
8. Teacher Signature;
9. Student Signature;
10. Department Head Signature.

After the student has provided all of the information above, the proposal is submitted to the head of the department guiding the independent study. The signature of the department head indicates that all requested pieces of the proposal are included, that the guidelines are met or exceptions to the guidelines have been explained, and that the department approves all aspects of the course. The department head will submit the signed proposal to the Academic Committee.

## ELL STUDENTS

ELL (English language learner) students are students born in non-English-speaking countries. Course requirements and grading policies are adjusted as follows:

1. For their first year in the U.S., ELL students take ESL in addition to English (exceptions may be made based on language proficiency). This is not graded Pass/Fail. After the first year, teachers may recommend additional ESL course work.
2. ELL students who have been in school in the United States for less than three years may be exempted from the three-year foreign language requirement if they choose.
3. In courses other than English and Languages, ELL students are placed as appropriate and have the same graduation requirements as other Gregory School students.

## ADVANCED PLACEMENT COURSES AT THE GREGORY SCHOOL

The Gregory School upper school curriculum values critical thinking, reading, and writing, which means that coursework emphasizes close reading, presentations, projects, and class discussions. While all Advanced Placement (AP) courses meet the criteria of the College Board AP Course Audit, Gregory School AP course curricula are designed to meet the school's broader educational goals.

Enrollment in AP courses is based on grades in prerequisite courses. No limit is specified as to the number of advanced placement courses a student can take. Up to fifteen advanced placement courses are offered (see list on next page), depending on demand. AP courses earn an extra weight of 0.5 in a student's GPA.

**AP courses, being college-level courses, frequently require more out-of-class work than non-AP classes; students must take this into consideration when choosing courses. Some AP courses require additional labs.**

All AP courses focus on the skills and preparation required to perform well on the AP exam, but do not necessarily emphasize specific test-taking strategies. Students who wish to take AP exams may need to attend additional test

preparation sessions in order to perform well on the tests, which must sometimes occur outside of class time.

Any student may sit for an AP exam. Students can speak with teachers and/or the college counselor about whether taking the exam is an appropriate choice for them.

AP SUBJECT
Biology
Calculus AB
Calculus BC
Chemistry
Computer Science
English Literature and Composition
European History
French Language and Culture
Latin
Physics C: Electricity and Magnetism/ Mechanics
Spanish Language and Culture
Spanish Literature and Culture
Statistics
United States Government and Politics
United States History

## COURSE OFFERINGS AND PREREQUISITES

All courses are offered for one full year except where noted. Credit is awarded at the end of each semester. Prerequisite grades are based on the second semester of the prerequisite course, if based on a year-long course.

Course Types
Academic course required for graduation
Course required for graduation
Academic elective course
Performance/production based elective course
Elective
Non-credited elective course

## ENGLISH

### English as a Second Language

The ESL course addresses the language needs of non-native English speakers in their first years at The Gregory School. Emphasis is on meeting the expectations of reading and writing across The Gregory School curriculum as well as on speaking and listening skills; the instructor communicates with faculty so that what students are learning in the ESL class is helpful with their academic work. Required of ELL students for their first (and sometimes second) year in the U.S. based on language proficiency.

Grade levels: 9-12

Course type: Academic course required for graduation

### English 1

English 1 provides students with an introduction to academic writing necessary for high school and college, including a formal study of grammar, college level vocabulary, sentence and paragraph construction as well as essay writing. This course is a formal study of modern rhetoric, including descriptive, narrative, expository (including research), and persuasive forms of discourse. Students are also introduced to the principles of literary analysis, including the literary genres of fiction, poetry, and drama. Appropriate literary terms are studied and learned to support both an appreciation of and understanding of what constitutes great literature and how to analyze it with a critical eye.

Grade level: 9

Course type: Academic course required for graduation

## **English 2**

English 2 builds upon students' ninth grade coursework in expository and argumentative writing and focuses on critical reading and thinking skills within an American literature-based curriculum. Major works of American literature are thematically and sequentially arranged and generally coincide with the students' studies in the American History course. Consideration of the historical and cultural context of the readings will add substantially to each student's understanding of the works. The end of the year goal for each student will be to evaluate a text, analyze literature and explore related thematic topics, demonstrate logic and organization in writing and speaking, and write clearly and coherently. Some possible authors include Nathaniel Hawthorne, Edgar Allen Poe, Emily Dickinson, Henry David Thoreau, F. Scott Fitzgerald, the Harlem Renaissance poets, J. D. Salinger.

Grade level: 10

Course type: Academic course required for graduation

## **English 3**

English 3 is a world literature course that offers an introductory survey of epic poetry. The primary focus is on developing students' ability to analyze, evaluate, and think critically about complex works of literature. Special attention is given to studying the historical, cultural, and geographical milieu in which these works were produced. There will also be some coverage of the basics of textual transmission with regard to the authors studied, as well as literary theory. A major critical comparative composition culminates the year. Vocabulary study and grammar, as needed, are included. Some possible texts include the *Epic of Gilgamesh*, Homer's *Odyssey*, Virgil's *Aeneid*, and Dante's *Inferno*.

Grade level: 11

Course type: Academic course required for graduation

## **English 4**

English 4 builds upon the in-depth analytical skills exercised during the Junior Critical Paper unit, namely close-reading, evaluation, and interpretation of literature. Students are encouraged to engage in scholarly discourse through the use of the Socratic Seminar and other discussion techniques. In an effort to develop strong opinions with valid support, students also read and evaluate scholarly articles on the literature they're reading, encouraging them to enter into argumentative discourse. The course focuses on a range of genres with an emphasis upon themes of identity and place. Possible texts include: *Let the Great World Spin*, *Hamlet*, *Death of a Salesman*, *Ordinary People*, and *Into the Wild*.

Grade level: 12

Course type: Academic course required for graduation

## **AP English (Literature and Composition)**

AP English is a writing-intensive, college-level course intended to prepare students to bypass the usual required college freshman English course by performing well on the AP English Literature and Composition examination. This course concentrates on advanced critical reading, writing, and analytical skills, examining a range of genres with an emphasis on close examination of texts, interpretation, and writing about literature, including poetry, fiction, non-fiction, and drama. Students planning to take the AP examination have a chance in the spring to practice the test-taking skills needed for the exam. Possible texts include Old School, *King Lear*, *Hamlet*, The Grapes of Wrath, Heart of Darkness, As I Lay Dying. This course is taken in place of English 4.

Grade level: 12

Course type: Academic course required for graduation

Recommended: B+ (87%) or better in English 3, *but not required*

## **Creative Nonfiction: Personal Essay Writing**

This single semester elective will open student eyes to the fun of essay writing. The personal essay asks students to consider how their life experiences have informed their views on specific topics. From morality to travel, from family relationships to food, from politics to poetry, students will get to read and write creative essays. We'll begin the course by reading the master of this form Michel de Montaigne, who wanted to record "some traits of [his] character and of [his] humours." We'll read many examples of the modern personal essay, written by the likes of Joan Didion, Ann Patchett, Marilynne Robinson, and David Foster Wallace. Students will get to know the craft (organizational methods, rhetorical devices, literary elements) as well as themselves more deeply.

Grade levels: 11-12

Course Type: Academic elective course

Course Offered: First semester elective

### **Poetic Forms: A Poetry Workshop**

This single semester elective will provide students an opportunity to see how a particular poetic form impacts that poem's meaning. Why write a sonnet when you could write an ode? Why put your thoughts into three stanzas instead of one? This course is designed to demystify poetic composition and to help students gain confidence in their own writing of poetic forms such as sonnets, villanelles, sestinas, pantoums, etc. Students will be introduced to a wide range of poems and poetic techniques, enabling them to gain a deeper appreciation for how poetry works. This course is for anyone who would like to read and to write poetry.

Grade levels: 9-12

Course Type: Academic elective course

Course Offered: Second semester elective

**Journalism Program:** The journalism program at The Gregory School is unique in that, unlike many secondary schools, the publication of the school newspaper, *The Gregorian Chant*, is an integral part of the core curriculum. As such, the classes are examples of authentic assessment at its best. All enrolled students participate in the production of the school newspaper, and the program is structured to allow students who choose to repeat the class over a span of years to sequentially ascend the various levels indicative of increased proficiency, competency, and leadership potential.

Currently, three levels are offered. Students may enroll in the program at any grade in the high school, but due to space limitations in the media lab, class sizes may be limited. Priority will be given to students already enrolled in the program. If a student is curious about the media, this course provides the opportunity for young journalists to develop their writing skills, find their public voices, and produce their own newspaper for the school community.

### **Introduction to Journalism**

The focus is on learning the basics of journalistic writing. Students are also introduced to the media and explore its role and function within the context of a democratic society. Class lessons taught by the advisor and guest journalists, and workshops offered by the Advanced Journalism students provide the context in which this course of study is conducted. Writing and editing assignments comprise much of the work completed by first year students, with actual reporting assignments given as students begin to hone their skills. By the second semester, students have begun their introduction to the Adobe InDesign layout software, the applications used in the media lab for the production of the school newspaper.

Grade levels: First-year students, grades 9-12

Course type: Performance/production based elective course

### **Journalism Fundamentals 1 and 2**

Journalism Fundamentals includes students who are now proficient writers, researchers, and interviewers. A serious commitment of time is also expected during copy editing and layout sessions. Round table discussions of current events and news analysis are a part of the class work completed by Journalism Fundamentals students. Competency is also measured in a student's ability to utilize the media lab software programs, engage in self-directed tasks, and actively participate as a full-fledged member of the newspaper reporting staff. Additionally, evaluation at this level involves assessment of the staff's production of the newspaper and success at team-building tasks. Students who show superior initiative and promise at this level may ascend to the Advanced Journalism class.

#### **Journalism Fundamentals 1**

Grade levels: Second-year students, grades 10-12

Course type: Performance/production based elective course

Prerequisite: B (83%) or better in Introduction to Journalism

#### **Journalism Fundamentals 2**

Grade levels: Third-year students, grades 11-12

Course type: Performance/production based elective course

Prerequisite: B (83%) or better in Journalism Fundamentals 1 or A- (90%) or better in English 3

### **Advanced Journalism**

This class is for fourth year (and some exceptional third year) students. Students who pursue this option are expected to work at advanced levels in all areas of the class, and most likely hold senior editorships on the newspaper staff. Not only are students at this level experienced high school journalists, but they also demonstrate a depth and breadth of knowledge in the areas of page design, layout, copy editing, press law, scheduling, task management, and peer leadership. They direct each issue of the newspaper published by the class, manage the staff, and lead student workshops in class. Students at this level are evaluated in the fashion of many typical job performance reviews.

Grade levels: 11-12

Course type: Performance/production based elective course

Prerequisite: B (83%) or better in Introduction to Journalism and A (93%) in one or two years of Journalism Fundamentals

### **Beginning Yearbook**

This yearbook class covers all aspects of creating the annual Gregory School yearbook, *The Summit*. The course introduces students to specific computer software, photography, layout and design, timelines, and deadlines. The time commitment to yearbook exceeds the scheduled class periods. Each member of the yearbook class is asked to be present at various school activities and sporting events for photography opportunities. Most of the yearbook's computerized layouts are completed during open labs. This class is graded pass/fail.

Grade levels: 9-12

Course type: Performance/production based elective course

Required: Camera (high resolution digital camera strongly recommended)

### **Advanced Yearbook (Second-, third-, and fourth- year staff members)**

This course builds on the skills developed in Beginning Yearbook, emphasizing the improvement of visual design, photography, editing, and journalism. Staff members at this level may be asked to serve as editors, overseeing other staff members' work. Editors make the final decisions regarding layout, design, and theme of the book. This class is graded pass/fail.

Grade levels: 10-12

Course type: Performance/production based elective course

Prerequisite: Beginning Yearbook

Required: Camera (high resolution digital camera strongly recommended)

## **FINE ARTS**

### **Intermediate Band**

Intermediate Band is designed for middle and upper school students to play standard wind or percussion instruments in an ensemble setting. Students must have played their instruments for at least one year, and should be able to read music at a rudimentary level. In most cases students must provide their own instruments. Private lessons outside of school with an instructor specializing in the student's instrument are strongly encouraged. Students will have several required performances throughout the school year, and students will want (and need) to bring their instruments home regularly, since personal at-home practice outside of class meetings is expected. This course is performance-based and school concerts and other performances are included in the grading rubric.

Grade levels: 5-12

Course type: Performance/production based elective course

Course offered: First semester/Second semester elective

Prerequisite: At least one year of instrumental experience, prior Beginning Band, or permission of the Instructor as determined through a short audition process.

Required: Some after-school and weekend commitments

### **Advanced Band A/Advanced Band B**

Advanced Band A and B are individual one-semester courses; students may take one or both. Students must have had at least two years of previous experience playing an instrument, and they must have the recommendation and signed approval of the band teacher. An audition may be requested. Students will gain experience in playing more challenging and difficult music from classical transcriptions to film music and jazz. In most cases students will need to provide their own instrument, and private lessons outside of school with an instructor specializing in the student's instrument are strongly encouraged. The students are encouraged to audition for the Arizona Regional Festival as a soloist or in a small ensemble (participation is voluntary). Students will want and need to bring their instruments home regularly, since personal at-home practice outside of class meetings is expected. This course is performance-based; participation in all on-campus performances is mandatory, and performances are included in the grading rubric.

Grade levels: 8-12

Course type: Performance/production based elective course

Course offered: First semester/Second semester elective

Prerequisite: Two years band experience or private study AND recommendation and signed approval of the band teacher

Required: Some after-school and weekend commitments

### **Advanced Band**

Advanced Band is for those students who are ready to perform more advanced music. Students must have had at least two years of previous experience playing a standard wind or percussion instrument, and they must have the recommendation and signed approval of the band teacher. An audition may be requested. Students will gain

experience in playing more challenging and difficult music from classical transcriptions to film music and jazz. In most cases students will need to provide their own instrument, and private lessons outside of school with an instructor specializing in the student's instrument are strongly encouraged. The students are encouraged to audition for the Arizona Regional Festival as a soloist or in a small ensemble (participation is voluntary). Students will want and need to bring their instruments home regularly, since personal at-home practice outside of class meetings is expected. This course is performance-based; participation in all on-campus performances is mandatory, and performances are included in the grading rubric.

Grade levels: 9-12

Course type: Performance/production based elective course

Prerequisite: Two years band experience or private study AND recommendation and signed approval of the band teacher

Required: Some after-school and weekend commitments

### **Choir 2A/Choir 2B**

Choir 2A and 2B are individual one-semester courses; students may take one or both. Emphasis is on the performance of high-quality music, training in the skills of choral singing, solo singing, music theory and literacy, and ear and sight-reading skills. The course is performance-based; participation in both on-campus and off-campus performances is required and included in the grading rubric. Music ranges from sacred to secular, from Renaissance to Broadway, including pieces sung in languages other than English. Students are encouraged to audition for the Arizona Regional Choral Festival, and the choir will most likely participate in at least one other choral festival.

Grade levels: 8-12

Course type: Performance/production based elective course

Course offered: First semester/Second semester elective

Required: Some after-school and weekend commitments

### **Choir 2**

Emphasis in Choir 2 is on the performance of high-quality music, training in the skills of choral singing, solo singing, music theory and literacy, and ear and sight-reading skills. The course is performance-based; participation in both on-campus and off-campus performances is required and included in the grading rubric. Music ranges from sacred to secular, from Renaissance to Broadway, including pieces sung in languages other than English. Students are encouraged to audition for the Arizona Regional Choral Festival, and the choir will most likely participate in at least one other choral festival.

Grade levels: 8-12

Course type: Performance/production based elective course

Prerequisite: Choir 2A, 2B, or other previous choir experience (to be assessed by the instructor)

Required: Some after-school and weekend commitments

### **Beginning Guitar**

Open to all middle and upper school students, this course is intended as an introduction to the acoustic classical guitar, with an emphasis on the basic techniques required to play simple tunes and strum common chords. The course will also introduce common music notation and standard music theory, including rhythm concepts, music reading, tuning and performance of simple tunes and songs. Live solo and group performances are a part of the class expectation and grading rubric. No previous musical experience is required, and instruments for the class will be provided.

Grade levels: 6-12

Course type: Performance/production based elective course

Required: Some after-school and weekend commitments

### **Intermediate Guitar**

Open to middle and upper school students, this course will build and develop classical acoustic guitar skills and concepts introduced in the beginning course. There will be emphasis on performing in mixed groups using contemporary performance techniques, standard music notation and a broad range of music styles common to the guitar. Live solo and group performances are a part of the class expectation and grading rubric.

Grade levels: 6-12

Course type: Performance/production based elective course

Prerequisite: Beginning Guitar or permission of the instructor as determined through a short audition process.

Required: Some after-school and weekend commitments

### **Advanced Music Theory**

Advanced Music Theory is a yearlong course designed for the student to learn skills of music theory and beginning composition, in addition to aural skills, dictation, and sight singing. The objectives for this course are taken from the

AP Music Theory course published by the College Board. Students learn the basics of music notation and score analysis along with knowledge of basic tonal harmony in the eighteenth century common practice period style. The ultimate goal of the course is to develop a student's ability to recognize, understand, analyze, and describe the aspects and processes of music that is heard or seen on a score. Students engage in a variety of written, vocal, and composition exercises which highlight the many aspects of musical composition and analysis. The focus is on learning the foundational principles of music theory that lead to aptitude in analysis and beginning composition. Students can elect to take the AP Music Theory and Composition exam in May.

Grade levels: 9-12

Course type: Academic elective course

Recommended: Student ability to read music and/or play an instrument

### **Art History**

In this one-semester course, students will examine the significance of some of the parodied art works in history and understand how visual works have changed the course of humanity. Students will also learn why a two year old actually could *not* have produced some of the most important modern art works in the world and why investors are willing to spend millions of dollars on a single art piece. Throughout the semester, creative birthday parties will be celebrated for each student's "birthday buddy."

Grade levels: 9-12

Course type: Academic elective course

Course offered: One-semester elective

### **Studio Art 1A/Studio Art 1B**

Beginning Art 1A and 1B are individual one-semester courses; students may take one or both. During the first-semester course, students learn and apply the elements and principles of art and design using a variety of two-dimensional media and brainstorming skills. Drawing and design skills and techniques are emphasized. Though they may stand alone, they lay a foundation for all other work. During the second semester, students may also apply elements and principles to three-dimensional compositions. Sculptural media such as wood, wire, foam core, found objects, papier mache, and polymer clay may be used to create original sculptures of various dimensions. Work for both semesters is assessed on demonstration of concept understanding, creativity, composition, craftsmanship, and communication skills.

Grade levels: 9-12

Course type: Performance/production based elective course

Course offered: First semester/Second semester elective

### **Studio Art 2**

Students expand and advance techniques and skills introduced in Level 1 Studio Art. Students continue to be assessed based on the criteria of concept understanding, creativity, composition, craftsmanship, and communication. In this course, students are expected to demonstrate a more individual and sophisticated connection to their artwork.

Grade levels: 10-12

Course type: Performance/production based elective course

Prerequisite: Studio Art 1A or 1B

### **Studio Art 3**

This course is designed for serious art students who are interested in developing a portfolio for college or personal exploration. Students continue to advance in sophisticated use of media and concepts, individual project proposals, thoughtful critique, and careful reflection.

Grade levels: 11-12

Course type: Performance/production based elective course

Prerequisite: Studio Art 2

### **Advanced Studio Art**

The Advanced Studio Art course is intended for highly motivated students interested in the serious study of art. Course emphasis is placed on the quality, concentration, and breadth of work and the development of a college level portfolio. Students at this level may qualify for the National Art Honor Society.

Grade level: 12

Course type: Performance/production based elective course

Prerequisite: Three years of visual arts course work (studio art and/or photography)

### **Photography 1**

Students learn how to shoot and produce strong, aesthetic photographs in the medium of digital photography. They use Photoshop CS5 as the main means editing. There is an emphasis on alternative processes within the course as

well. Topics covered: how to manually use a 35mm DSLR (digital) camera; how to use Adobe Photoshop CS5; how to produce both technical and artistic photographs; and how to critique their work and the work of their peers. Students are graded on their photographs, technical exercises and tutorials, and class participation.

Grade levels: 9-12

Course type: Performance/production based elective course

Required: 35mm DSLR camera, at least six megapixels

### **Photography 2**

This course is designed to teach students to apply all they have learned in the beginning level course to their own personal, artistic works. The course is comprised of more in-class critiques and discussions. Students are responsible for keeping a personal blog, which consists of, but is not limited to, notes about their photographs, the world around them, and all that inspires them. The first part of the class is comprised of short assignments which refer back to the basics of photography and give the students the chance to strengthen and perfect these skills to a higher, more personal level of photography. Students are then given an entire quarter to work solely on a documentary of their choosing. It is the student's responsibility to keep up with and manage their work time wisely during the duration of the course. Along with their portfolios, they complete artist statements and résumés.

Grade levels: 10-12

Course type: Performance/production based elective course

Course offered: First semester or full year

Prerequisite: A- (90%) or better in Photography 1

Required: 35mm DSLR camera, at least six megapixels

### **Photography 3**

This course is designed to teach students to apply all they have learned in the beginning and intermediate level courses to their own personal, artistic works. It is comprised of more in-class critiques and discussions. Students are responsible for keeping a personal blog, which consists of, but is not limited to, notes about their photographs, the world around them, and all that inspires them. They are expected to shoot a number of photographs of their choice throughout the course which are eventually narrowed down to become part of their final portfolios at the end of each semester. It is the student's responsibility to keep up with and manage their work time wisely during this course. Along with their portfolios, they complete artist statements and résumés. The goal for advanced photography students is to prepare them for college and/or a professional career in photography, as well as all that the art world around them has to offer.

Grade levels: 11-12

Course type: Performance/production based elective course

Course offered: First semester or full year

Prerequisite: A- (90%) or better in Photography 2

Required: 35mm DSLR camera, at least six megapixels

### **Digital Design 1**

Students will create digital images using basic photoshopping techniques by building and painting directly on the computer. They will develop design knowledge through balance, emphasis, texture, color theory and mixing. Students will gain an understanding of various digital formats for both print and web use and study various historical art movements related to their projects.

Grade levels: 7-12

Course type: Performance/production based elective course

### **Digital Design 2**

Digital Design 2 will be a continuation and building of more PhotoShop skills and tools, especially to build atmosphere and depth digitally through color contrast and size. In this class, students will discover a new means of drawing digitally through vector imaging and the bezier pen tool to create logos and their own typography. Students will also be challenged to work creatively by using traditional art making methods and turning them in to digital images and vice versa.

Grade levels: 8-12

Course type: Performance/production based elective course

Prerequisite: Beginning Digital Design, Digital Design 1 or approval from instructor based on portfolio

### **Digital Design 3**

This course will expand on the basics of photoshopping and digital painting to communicate visually through a digital format. Projects will challenge the student to explore the digital format as a means of both personal expression and commercial purpose. Students will continue to develop their creativity, knowledge of design and color to build their projects.

Grade levels: 9-12

Course type: Performance/production based elective course

Prerequisite: Intermediate Digital Design, Digital Design 2 or approval from instructor based on portfolio

### **Beginning Dance**

The purpose of this course is to promote a balanced dance program that enables students to develop an appreciation of the use of the body as a means of communication and expression. Students will receive instruction in basic dance techniques and choreographic principles as they engage in movement activities designed to develop an understanding of the elements of dance, develop balance, coordination, flexibility, strength and endurance.

Grade levels: 8-12

Course type: Performance/production based elective course; can be used for fine arts credit or PE graduation requirement

Required: Some after-school and weekend commitments

### **Intermediate Dance**

The purpose of this course is to promote a balanced dance program that enables students to develop an appreciation of and skill in the use of the body as a means of communication and expression. Students will receive instruction in both dance techniques and choreographic principles that builds on skills developed in Beginning Dance. They will engage in dance activities designed to increase movement skills (balance, coordination, agility, flexibility, strength and endurance); develop their ability to effectively utilize the elements of dance in performance and the choreographic process; and develop their expressive performance skills. There will be performance opportunities. Additional rehearsal time may be required.

Grade levels: 8-12

Course type: Performance/production based elective course; can be used for fine arts credit or PE graduation requirement

Prerequisite: Beginning Dance or Approval of Instructor

Required: Some after-school and weekend commitments

### **Advanced Dance/Choreography Lab**

This course is designed for advanced dance students and will focus on refining technical proficiency, artistic expression and creative fluency. Students will engage in the processes of creation, rehearsal, and performance of original student dance choreography; ensemble skills; repertoire maintenance, and performance disciplines. A variety of opportunities will be provided for performance of completed works. Additional rehearsal time required.

*The student will be able to:*

- Compose original dance works for performance applying each step of the choreographic process.
- Analyze, critique and discuss choreography in an intelligent, productive manner.
- Learn, recall with accuracy and expressively perform original choreography and the choreography of peers and others.
- Collaborate with others in creating and performing dance works.
- Work creatively and efficiently under deadlines.
- Manage rehearsals effectively.
- Recall choreography and perform it with confidence and accuracy.
- Effectively use technical theatre elements: costumes, make-up, set design, and props.

Grade levels: 8-12

Course type: Performance/production based elective course; can be used for fine arts credit or PE graduation requirement

Prerequisite: Audition or Approval of Instructor

Required: Some after-school and weekend commitments

### **Stagecraft A/Stagecraft B**

Stagecraft A and B are individual one-semester courses; students may take one or both. Stagecraft A is an introductory course focused on backstage work for a straight show or non-musical production, while Stagecraft B focuses on a musical production. Students learn theater terminology, safety rules, and procedures for building sets and working behind the scenes. Each student becomes a vital crewmember required to attend specified rehearsals and performances for one Gregory School mainstage show and an additional theatrical event.

Grade levels: 9-12

Course type: Performance/production based elective course

Course offered: First semester/Second semester elective

Required: Some after-school and weekend commitments

### **Theater Production 1 and Theater Production 2**

These one-year courses are designed for students who know the basics of stagecraft and can begin implementing their knowledge. Students expand their experience in technical theater and are required to be involved in the planning and execution of theatrical productions. Each student becomes a vital crewmember, required to attend specified rehearsals and performances for two Gregory School mainstage shows and additional theatrical events.

#### **Theater Production 1**

Grade levels: 10-12

Course type: Performance/production based elective course

Prerequisite: B (83%) or better in Stagecraft A or B

Required: Some after-school and weekend commitments

#### **Theater Production 2**

Grade levels: 11-12

Course type: Performance/production based elective course

Prerequisite: B (83%) or better in Theater Production 1

Required: Some after-school and weekend commitments

### **Theater Design**

Theater Design is an advanced course in backstage work with emphasis on technical theater design. Students design the publicity, scenery, props, lighting, and sound for all of The Gregory School shows and may be asked to perform special duties for outside groups renting the theater space. Each student becomes a vital crewmember, required to attend specified rehearsals and performances for all Gregory School mainstage shows and additional theatrical events.

Grade levels: 11-12

Course type: Performance/production based elective course

Prerequisite: A (93%) or better in one or two years of Theater Production or with instructor approval

Required: Some after-school and weekend commitments

### **Beginning Drama A/Beginning Drama B**

Beginning Drama A and B are individual one-semester courses; students take one or both. Both sections provide an introduction to the basics of theatrical performance. Students explore acting skills, vocal and physical strategies, scene work, improvisation, character development, ensemble work, and theater games. Assignments include textual analysis, historical research, playwriting, daily class activities, and review of professional, individual, partner, and group performances. Students participate in local acting festivals as well as performances for the school community.

Grade levels: 9-12

Course type: Performance/production based elective course

Course offered: First semester/Second semester elective

Required: Some after-school and weekend commitments

### **Intermediate Drama 1 and Intermediate Drama 2**

These one-year courses are continuations of the basic performance skills developed in Beginning Drama. Students advance their study of playwrights, texts, acting styles, and characterization. Assignments include reading, viewing, and analyzing plays for scene study and performance. Skills covered in class include textual analysis for characterization, recognition of dramatic and historical styles, and the preliminary techniques of directing. Students participate in acting festivals and performances for the school community.

#### **Intermediate Drama 1**

Grade levels: 10-12

Course type: Performance/production based elective course

Prerequisite: B (83%) or better in Beginning Drama A or B

Required: Some after-school and weekend commitments

#### **Intermediate Drama 2**

Grade levels: 11-12

Course type: Performance/production based elective course

Prerequisite: Intermediate Drama 1

Required: Some after-school and weekend commitments

### **Advanced Drama**

This one-year course is a collaborative effort toward demonstrating all of the acting, directing, and producing skills students have learned in Beginning and Intermediate Drama in order to create public performances. Assignments include reading, viewing, and analyzing plays and the exploration of various directing styles. Skills covered in class include the in-depth study of directing, textual analysis, and production concept creation, sophisticated work with

different dramatic styles, and historical and cultural dramaturgy. Students participate in acting festivals and direct performances for the school community.

Grade levels: 11-12

Course type: Performance/production based elective course

Prerequisite: A (93%) or better in Intermediate Drama 2 or with instructor's approval

Required: Some after-school and weekend commitments

**After-School Musical/Drama Productions:** These productions are after-school and on weekends. Interested students become part of an ensemble producing a dramatic stage presentation. Material is taken from a wide range of dramatic and musical literature. Singing and dancing may be required. Participation for acting, singing and dancing is by audition. (No course credit awarded.)

## LANGUAGES

Native Spanish/French speakers are encouraged to meet their foreign language requirement with French, Spanish or Latin.

Native speakers of Spanish or French may take advanced courses in their native languages as electives. They will take a test to be placed in the appropriate class.

### French 1

This course assumes little or no prior instruction in French. In class, we emphasize conversational skills while written work is done at home. Students learn familiar, concrete vocabulary and phrases geared toward everyday life in a French-speaking country. Various aspects of Francophone culture are introduced, with concentration on France, Senegal, and Québec. We use primarily the present tense, but learn about the past tense in the fourth quarter.

Grade levels: 8-12

Course type: Academic course required for graduation

Prerequisite: Students who have taken French 1A and French 1B in middle school will be placed in French 1 or French 2 by department.

### French 2

Students further develop conversational skills through study of concrete vocabulary and idiomatic expressions. They study the culture, geography and daily life of various Francophone regions. Writing assignments are more varied than those of French 1. We use storytelling to illustrate uses of the past tense, and students write and illustrate an original fairy tale, which they then read to an audience. We do a thorough review of present tense before working on *passé composé* and *imparfait*.

Grade levels: 8-12

Course type: Academic course required for graduation

Prerequisite: C (73%) or better in French 1 **OR** students who have taken French 1A and French 1B in middle school will be placed in French 1 or French 2 by department.

### French 3

By third year French, a student is able to maintain a conversation about a wide variety of topics. More emphasis is given to reading and writing than in the past two years. Vocabulary and composition topics are varied. Students examine the culture, literature, and music of French-speaking Europe, Africa, Polynesia, North America, and the Caribbean. They read short selections from the French-speaking world. Tenses/moods covered: conditional, future, and subjunctive. As a final assessment, students give a presentation and do a discussion with French speakers from the community.

Grade levels: 9-12 (or 8th graders who are native speakers or have done an immersion program)

Course type: Academic course required for graduation

Prerequisite: C (73%) or better in French 2

### Francophone Identities

The goal of this class is to continue developing the skills of reading, writing, listening, and speaking French in the context of various cultural issues in the Francophone world. We will address the issues of identity: How does our identity form and how does it evolve over time? What factors influence acceptance or exclusion from a group? How does one identify with a group, but retain individuality? We will also review grammar extensively and practice conversational skills. We will read short stories, poems, essays, and excerpts from novels and we will watch a number of films, such as *Oscar et la dame rose* and *Le Huitième jour*.

Grade levels: 9-12

Course type: Academic elective course

Prerequisite: 3 years or more of French; C (73%) or better in the previous French class

### Advanced Francophone Identities

This class is designed for students who are native speakers of French, have done an immersion program, or have reached a skill level the teacher deems adequate. The goal of this class is to continue developing the skills of reading, writing, listening, and speaking French in the context of various cultural issues in the Francophone world. We will address the issues of identity: How does our identity form and how does it evolve over time? What factors influence acceptance or exclusion from a group? How does one identify with a group, but retain individuality? We will review grammar as needed and practice both conversational and presentational skills. We will invite native speakers of French to visit the class periodically. We will read short stories, poems, essays, and excerpts from novels and we will watch a number of films, such as *Oscar et la dame rose* and *Le Huitième jour*.

Grade levels: 9-12

Course type: Academic elective course

Prerequisite: Intermediate or high proficiency in French; B (83%) or better in previous French class

### AP French Language and Culture

This course is designed for students who want to further develop their language skills and would consider taking the AP exam. Students build vocabulary, thoroughly review grammar, and study a variety of cultural themes. Students read short stories, poems, and other readings, and write compositions on a variety of topics. They read the novel *Candide* by Voltaire. Students occasionally watch movies, listen to the news or other videos on *tv5.org*, and they write frequently in journals. An extra “lab” period once a week is required for those who intend on taking the AP test. Students are encouraged, but not required, to take the AP exam in May.

Grade levels: 9-12

Course type: Academic elective course

Prerequisite: B+ (87%) or better in French 3

Course Note: Offered as an independent study to compliment Francophone Identities classes during the 2018-19 academic year

### Latin 1

The Latin program offers a comprehensive foundation in the language from the introduction of basic vocabulary and grammar through the study of grammatical syntax and literature. Our course is based on the universal stories of Ovid. Reading comprehension, translation, and Latin prose composition are emphasized in the latter part of the course. Readings from ancient authors and modern retellings focus on classical culture, history, and mythology.

Grade levels: 8-12

Course type: Academic course required for graduation

Prerequisite: Students who have taken Latin 1A and Latin 1B in middle school will be placed in Latin 1 or Latin 2 by department.

### Latin 2

This course continues the study of grammar, syntax, and vocabulary, and makes the transition from fabricated Latin to the original language. In the second semester students practice their new ability to read excerpts of the original works of Ovid’s *Metamorphoses* and *Fasti*.

Grade levels: 8-10

Course type: Academic course required for graduation

Prerequisite: C (73%) or better in Latin 1 **OR** students who have taken Latin 1A and Latin 1B in middle school will be placed in Latin 1 or Latin 2 by department.

### Latin 3

Using many different Latin authors in various genres, this course emphasizes reading skills. In a prominent position are the orations of Cicero and the histories of Caesar. To complement the foundation are the letters of Cicero, epigrams of Martial, philosophy of Lucretius, history of Livy, and elegies of Propertius and Tibullus, et al. This course is a wonderful examination of Roman culture through great literature.

Grade levels: 10-11

Course type: Academic course required for graduation

Prerequisite: C (73%) or better in Latin 2

### Latin 4

Latin 4 is for those students who choose to continue on in Latin after finishing their language requirements. The course is designed to prepare students to be successful in Advanced Placement Latin through a thorough review of grammar, extensive practice in writing text-based critical essays and exposing students to a wide range of original works in both prose and poetry. In the first semester students translate and analyze prose works from Cornelius Nepos, Livy, Cicero

and Julius Caesar. In the second semester students translate and analyze poetry from Catullus, Ovid, Martial and the early works of Vergil.

Grade levels: 11-12

Course type: Academic elective course

Prerequisite: B (83%) or better in Latin 3

### AP Latin

This course will feature passages from the great Roman epic the Aeneid as well as passages from De Bello Gallico, Julius Caesar's commentaries on the Gallic Wars. Students will translate passages from both works as well as reading both works in translation. The new AP Latin course will expose students to two very different genres: epic poetry and a primary source historical document. Students will learn historical context of the Julio-Claudian dynasty in Rome in which these masterpieces were created. The course will emphasize close reading and applied understanding of the text. Students also develop essay writing skills in preparation for the AP exam.

Grade levels: 11-12

Course type: Academic elective course

Prerequisite: B+ (87%) or better in Latin 4

### Spanish 1

Spanish 1 is an introductory course primarily in Spanish, which assumes no prior knowledge of the language. Emphasis is on developing the student's ability to use the language for basic communicative competence by developing the four skills: listening, speaking, reading and writing. Culture is introduced through the videos and readings. The emphasis in the classroom is the use of oral Spanish. By the completion of the first year, students are able to introduce one friend to another, describe likes and dislikes, shop for food and clothing, order a meal in a restaurant, talk about daily routines, weekend activities, classes, family, health, and holidays. Students are able to speak, read, and write in the present, past, and future.

Grade levels: 8-9

Course type: Academic course required for graduation

Prerequisite: Students who have taken Spanish 1A and Spanish 1B in middle school will be placed in Spanish 1 or Spanish 2 by department.

### Spanish 2

Spanish 2 continues the four-skill approach begun in Spanish 1 through the continued use of the direct method and develops the student's ability to begin to express abstract concepts such as desires, doubts, and possibilities, through the use of the subjunctive mood. Emphasis is also on commands, the contrast of the two past tenses (the preterit and the imperfect), and the future tense. Cultural content is enhanced through the use of video material and short readings. Students at this stage are writing short compositions in Spanish on a variety of cultural and personal topics.

Grade levels: 8-12

Course type: Academic course required for graduation

Prerequisite: C (73%) or better in upper school Spanish 1 **OR** students who have taken Spanish 1A and Spanish 1B in middle school will be placed in Spanish 1 or Spanish 2 by department.

### Spanish 3

Students are introduced to the study of literature in Spanish 3. The study of the subjunctive mood is completed and the perfect tenses, conditional, and passive voice are introduced. Students continue to develop their knowledge of vocabulary and idiomatic expressions so that they can discuss, in Spanish, complex topics suggested by films, readings in literature and cultural presentations. Compositions become longer and are more varied in content.

Grade levels: 9-12

Course type: Academic course required for graduation

Prerequisite: C (73%) or better in Spanish 2

### Spanish 4

Spanish 4 is an elective course designed for students who want to continue the study of Spanish beyond the requirement for foreign language in the Upper School. The study of some Spanish and Latin American literature, along with different aspects of Hispanic culture such as painting, music, festivals, places of interest, and cultural differences are highlights of the course. Students continue to master the spoken and written aspects of Spanish through discussions and diverse oral exercises, as well as compositions and theme writing. The course includes a complete review of grammar presented to date, as well as the introduction of more advanced grammatical topics. The course is also designed as preparation for taking AP Spanish Language and Culture course.

Grade levels: 10-12

Course type: Academic elective course

Prerequisite: C (73%) or better in Spanish 3

### AP Spanish Language and Culture

Advanced Placement Spanish Language and Culture is an elective course designed to prepare students for more advanced Spanish language studies at the university level, as well as for the AP Spanish Language and Culture Exam. The course is structured to cover the six thematic areas as presented on the AP Exam: Global Challenges, Science and Technology, Contemporary Life, Personal and Public Identities, Family and Communities, Beauty and Aesthetics. Students continue to master the spoken and written aspects of Spanish through discussions and diverse oral exercises, as well as compositions and theme writing. The course includes a detailed review of all grammar presented to date, as well as a general introduction to Spanish and Latin American literature.

Grade levels: 10-12

Course type: Academic elective course

Prerequisite: B+ (87%) or better in Spanish 4 or with instructor's recommendation

### AP Spanish Literature and Culture

Advanced Placement Spanish Literature and Culture is designed for students with a high level of proficiency in the Spanish language. Grammar is reviewed as needed. The course introduces students to the formal study of a representative body of texts from Peninsular Spanish, Latin American, and U.S. Hispanic literature. The overarching aims of the course are to provide students with ongoing and varied opportunities to further develop their proficiencies across the full range of language skills – with special attention to critical reading and analytical writing – and to encourage them to reflect on the many voices and cultures included in a rich and diverse body of literature written in Spanish.

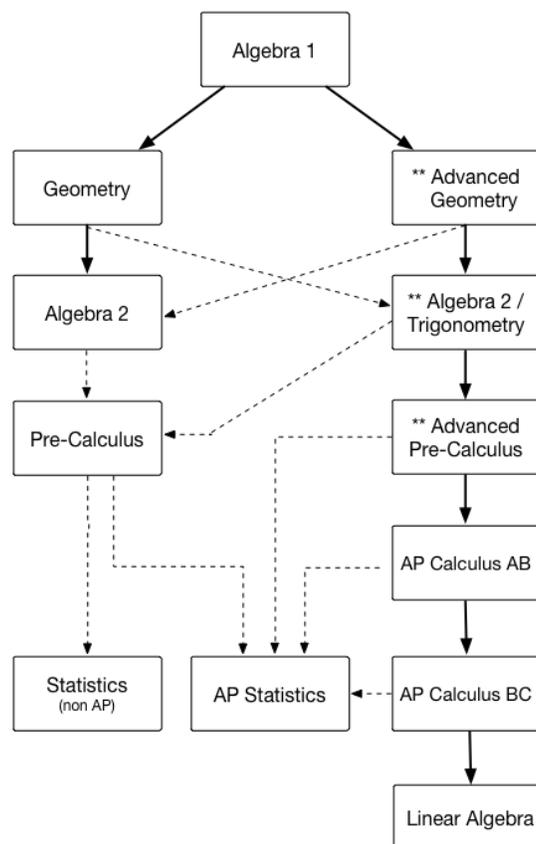
Grade levels: 11-12

Course type: Academic elective course

Prerequisite: B+ (87%) or better in AP Spanish Language

## MATHEMATICS

In each mathematics course, emphasis is placed on four essential skills: problem-solving, reasoning and proof, communication, and connections. As students acquire more skills, they use them to solve increasingly complex problems from a variety of disciplines. Students generally have assignments due every class. Whenever possible, time is taken for exploratory problem-solving, in which students look for patterns, vary approaches, use concepts previously learned, apply new ideas to solve a problem, and finally write up and present their solutions.



**\*\* See course description for placement criteria.**

## **Algebra 1**

Algebra 1 is the freshman level Algebra course. It is a full year course taught over the two semesters of the academic school year. Algebra 1 is a foundational course that teaches students how to extend their knowledge of mathematics from the concrete to the abstract. Students learn how to generalize operations with numbers and variables in order to approach more dynamic problem solving scenarios.

The course begins with an in depth review of topics in: number systems, theory of equations and algebraic application of geometric principles. The new topics in semester one include: solving and modeling with linear equations, studying the graphs of degree 1, 2 and 3 polynomials, the absolute value function and the square root function and their properties under transformations using the graphing calculator as a primary tool.

The second semester of the course focuses more on non-linear forms including: solving systems of linear equations, linear inequalities and their applications, factoring and its applications, and quadratic and cubic functions and their applications. Problem solving and application of each topic is an integral part of the course.

Mathematical Practices are emphasized throughout the course. Process standards include problem-solving, reasoning and proof, communication, representation and connections. Additionally, mathematical fluency of expression is modeled by teaching adaptive reasoning, strategic competence, command of linguistic expression using mathematical symbols and models.

Grade level: 9

Course type: Academic course required for graduation

Prerequisite: Successful completion of Pre-Algebra

## **Geometry**

Geometry is a full year course taught over the two semesters of the academic school year. The course is concerned with describing the size, shape and properties of figures in the plane and in space under transformations. It is used as a vehicle to develop students' logical reasoning abilities and to further develop fundamental mathematical ways of thinking. Students engage in activities that extend their learning and allow them to explore geometric concepts in greater depth via in-class experiments and projects.

The course begins with exploring relationships and patterns in geometric shapes and the world around us. Students will then explore topics in: constructions using traditional tools as well as geometry software, numerical and spatial invariants, reasoning and proof, congruence, similarity, measurement, polygons and circles on the coordinate plane as well as three-dimensional figures, and right-triangle trigonometry.

Grade levels: 9-10

Course type: Academic course required for graduation

Prerequisite: Successful completion of Algebra 1

## **Advanced Geometry**

Advanced Geometry is a full year course taught over the two semesters of the academic school year. This is an accelerated course that will emphasize deductive and inductive reasoning to develop the notion of geometric proof. Students will engage in a variety of activities that extend their learning and allow them to explore geometric concepts in depth and with rigor via in-class experiments and projects. The course begins with exploring relationships and patterns in geometric shapes in the world around us. Students will then explore topics in: constructions using traditional tools as well as geometry software, numerical and spatial invariants, reasoning and proof, congruence, similarity, measurement, polygons and circles on the coordinate plane as well as three-dimensional figures, and right-triangle trigonometry.

Grade levels: 7-10

Course type: Academic course required for graduation

\*\*Prerequisite: B (85%) or better in both semesters of Algebra (1 or B) and teacher recommendation

## **Algebra 2**

Algebra 2 is a full year course taught over the two semesters of the academic school year. The course is concerned with a variety of functions; linear, quadratic, rational, radical, higher order polynomials, exponential and logarithmic. We examine functions as they relate to modeling real world applications, graphing and solving equations and inequalities, while employing the entirety of the complex number system (rational, irrational, and non-real numbers).

Grade levels: 9-11

Course type: Academic course required for graduation

Prerequisite: Successful completion of both Algebra 1 and Geometry

### **Algebra 2/Trigonometry**

Algebra 2/Trig is a full year course taught over the two semesters of the academic school year. This is an accelerated course that combines the topics in Algebra 2 with Trigonometry and its applications. Functions investigated will focus on higher order polynomials, rational, radical, exponential and logarithmic functions. We examine functions and their inverse functions as they relate to modeling real world applications, graphing and solving equations. We will be employing the entirety of the complex number system (rational, irrational, and non-real numbers) to solve problems and to represent them geometrically. During the second semester, we will examine periodic functions by applying trigonometric principles. This course will include an applied Statistical Unit to prepare students for the “new SAT.”

Grade levels: 9-11

Course type: Academic course required for graduation

\*\*Prerequisite: B+ (87%) or better in both semesters of Geometry, B (85%) or better in both semesters of Algebra 1, and teacher recommendation

### **Precalculus**

This elective course is a full year course that will continue to solidify a student’s Algebraic and Trigonometric skills through transformational Geometry. In this course we will focus on the properties and applications of functions by analyzing form. Units of instruction will extend previous learning by investigating domain and range as it relates to polynomial functions, rational functions, exponential and logarithmic functions and trigonometric functions. Students will study Arithmetic and Geometric sequences and their applications. The course also includes a Statistics component. Units of instruction will include applications of combinatorics, binomial distribution systems and data displays/data analysis.

Grade levels: 11-12

Course type: Academic elective course

Prerequisite: Successful completion of Algebra 2 or Algebra 2/Trig

### **Advanced Precalculus**

Topics include: linear, quadratic, polynomial, rational, exponential, logarithmic, and trigonometric functions; triangle trigonometry; trigonometric equations and identities, and applications; discrete algebra; limits and continuity. The purpose of the course is to prepare students for AP Calculus AB.

Grade levels: 10-12

Course type: Academic elective course

Prerequisite: B+ (87%) or better in both semesters of Algebra 2/Trig and teacher recommendation.

### **Statistics**

Statistics is the science of data analysis and inference. This course will focus on exploring and visualizing data, planning a study (observational studies and experimental design), and generating statistical inferences based on data. Topics covered will include interpreting data, probability, normal, Chi-Squared and t-distributions, and linear regression. Computer software will be routinely used to analyze large data sets. Students will conduct classroom experiments, will carry out individual and group projects and will be expected to read and evaluate information in various media outlets through a statistical lens. Students should expect to gain technical writing skills through laboratory exercises and interpretation of statistical analyses.

Grade level: 12

Course type: Academic elective course

Prerequisite: Successful completion of Precalculus or Algebra 3/Stats or Advanced Algebra 3/Stats

Course note: Can be taken concurrently with either AP Calculus AB or AP Calculus BC

### **AP Statistics**

AP Statistics is the high school equivalent of a one-semester, introductory college statistics course. In this course, students develop strategies for collecting, organizing, analyzing, and drawing conclusions from data. Students design, administer, and tabulate results from surveys and experiments, and simulations aid students in constructing models for chance behavior. Topics covered include data organization and statistical data summaries, binomial, Chi-squared, normal and t-distributions; sampling distributions, probability, experimental design, confidence intervals, hypothesis testing and linear regression. Students use a TI-83/84 graphing calculator, Fathom, and JMP statistical software, and Web-based java applets to investigate statistical concepts. To develop effective statistical communication skills, students are required to prepare frequent written and oral analyses of real data. This course meets three times per week. Teacher recommendation required for placement.

Grade levels: 11-12

Course type: Academic elective course

Prerequisite: Successful completion of Precalculus with teacher recommendation

Course note: Can be taken concurrently with either AP Calculus AB or AP Calculus BC with teacher recommendation

### AP Calculus AB

This course prepares students to take the AB Advanced Placement Calculus exam, which covers roughly one and a half semesters of college calculus. Students are expected to take the AP exam in May. Topics include: limits and continuity, derivatives and differentiation techniques, applications of derivatives, definite and indefinite integrals, the fundamental theorem of calculus, some techniques of integration, and applications of integrals. Some time is spent during the last quarter preparing for the AP exam and, if time permits, independent projects are assigned to research and teach a mathematical concept new to the class. This course will meet three times a week. Teacher recommendation required for placement.

Grade levels: 11-12

Course type: Academic elective course

Prerequisite: Successful completion of Advanced Precalculus and teacher recommendation

### AP Calculus BC

This course prepares students to take the BC Advanced Placement exam, which covers roughly two semesters of college calculus. Students are expected to take the AP exam in May. In the course, all AB topics are reviewed and additional topics include: more integration techniques and applications, numerical solutions of differential equations using Euler's method, l'Hopital's Rule, improper integrals, sequences and series, convergence of infinite series, power series, function approximation using Taylor series, derivatives and integrals of parametric, vector, and polar functions. If time permits, additional advanced topics may be covered such as mathematical induction, binomial series, multivariable calculus, and fundamentals of analysis. Some time is spent during the last quarter preparing for the AP exam. This course meets three times per week. Teacher recommendation required for placement.

Grade level: 12

Course type: Academic elective course

Prerequisite: Successful completion of AP Calculus AB and teacher recommendation

### Linear Algebra

Linear algebra is the study of vectors, vector geometry, multivariate linear functions, geometric transformations and the approaches used to solve multiple linear systems of equations. Course topics will include vectors and vector spaces, linear functions, elementary row operations, matrices, matrix operations, determinants, eigenvalues and eigenvectors, matrix symmetry, linear transformations, multivariate regression and clustering algorithms. This course will explore the applications of linear algebra through case studies and examples of applications in environmental science, computer science, engineering, statistics and finance. Students will have the opportunity use computer software for matrix manipulation.

Grade levels: 12

Course type: Academic elective course

Prerequisite: Successful completion of AP Calculus AB or BC

Course note: Can be taken concurrently with either AP Statistics, AP Calculus AB or AP Calculus BC with teacher recommendation

## **PERSONAL DEVELOPMENT**

### The Farmyard Classroom - Interdisciplinary Studies of Real Life

In this zero hour class, students will deepen their responsibilities and learning with activities tailored to their individual interests and skill levels. The foundational tier of this class is the tending and care for our animals. Beyond care, this will be a building and design class: not only upkeeping doors and latches, but also creating chairs, swings, and a total environment where the aesthetics of the yard contribute to the health of the animals. To contribute to the total experience of the yard, students will study texts of anatomy, physiology, ecology, and behavior. When students link nutrition, behavior, play, leisure, sleep, arts, and the environment of the animals with their *own* needs in life, The Gregory School will find our students thinking of the whole of each and every life.

Grade levels: 5-12

Course type: Academic elective course

Course offered: Elective during zero hour

### Intro to Leadership and Innovation in Society

Students will explore the concept of leadership within an historical context as they research and analyze the careers of individuals who are well-known leaders and agents of change in society. Within the context of these studies, students will be introduced to and given opportunities to develop individual leadership skills.

The three phases of the course content are:

1. An introduction to the types of leadership through research-based studies of famous leaders, past and present

2. Exploration of personal leadership philosophies and values
3. Development and extension of basic individual and team-based leadership skills and knowledge of leadership concepts

Grade levels: 8-12

Course type: Academic elective course

Course offered: First semester elective during zero hour

### **Advanced Leadership**

The underlying objectives of the course are to empower students with the confidence and abilities to engage in leadership opportunities beyond and outside of their Gregory School experience, and to support their individual development into engaged citizens who are capable of leading and becoming innovative agents of change. The Advanced Leadership course at the Gregory School is a comprehensive leadership development program that involves three sequential phases:

1. An inventory of existing leadership skills and personal leadership philosophies and values
2. Development of advanced individual and team-based leadership skills and knowledge of leadership concepts
3. A case study approach to understanding various leadership styles including Servant Leadership, Spiritual Leadership, Transformational Leadership, Charismatic Leadership, and Authoritative Leadership

Grade levels: 8-12

Course type: Academic elective course

Course offered: Second semester elective during zero hour

### **Junior College Seminar**

Juniors may elect to enroll in the Junior College Seminar, which meets once per week. The seminar will survey a number of topics related to the college process from types of colleges and universities to types of applications, to the application process. Students can expect to finish seminar with a sense of interest, with a list of well-researched college options, with an essay roughed, with a testing plan in place and partially executed, and with a game plan for the summer.

Grade level: 11

Course type: Non-credited elective course

Course offered: Second semester elective meeting once per week

### **Senior College Applications Seminar**

Seniors have the opportunity to take Senior College Applications Seminar, which allows seniors to dedicate time to completion of college applications. The goal of the seminar is for each senior to submit all applications by fall semester finals. In addition to issues germane to application completion, the seminar covers a plethora of topics from use of Naviance, to essay writing, to standardized testing, to requesting letters of recommendation. Each senior works closely with the college counselor to develop polished applications and to nurture communications with college admissions offices.

Grade level: 12

Course type: Non-credited elective course

Course offered: First semester elective

### **PE Exemption**

A ninth grade student who has a consistent, significant commitment to one or more physical activities outside of school may be exempted from the P.E. requirement in order to 1) take six or more academic courses or 2) add a second elective to the required five academic courses and one other elective course. Student and parents must write and sign a letter requesting the exemption to be kept in student's file.

### **Lifelong Fitness**

The goal of this year-long class is to promote lifetime physical fitness through an emphasis on individual sports. Students will show steady personal improvement in all activities throughout the year. The class will incorporate aerobic and anaerobic workouts, practice in proper stretching and strengthening techniques, skill development for various individual sports including bike riding, hiking, weight training, golf and more! There will be some team sports and play. Cooperative behavior and good sportsmanship are reinforced each class meeting. This course is graded on a pass/fail basis.

Grade Levels: 9-12

Course type: Elective course; can be used for PE graduation requirement

### **Yoga**

This year-long class will help students to learn, explore, and enjoy an ancient practice backed by modern science with benefits beyond compare. Yoga instruction will offer personalized direction on proper alignment, technique, exertion,

and modifications. This class will be a gathering place for those who seek to care for themselves in a welcoming, safe, comfortable, and supportive environment at all levels.

Grade Levels: 8-12

Course type: Elective course; can be used for PE graduation requirement

### **Beginning Dance**

The purpose of this course is to promote a balanced dance program that enables students to develop an appreciation of the use of the body as a means of communication and expression. Students will receive instruction in basic dance techniques and choreographic principles as they engage in movement activities designed to develop an understanding of the elements of dance, develop balance, coordination, flexibility, strength and endurance.

Grade levels: 8-12

Course type: Performance/production based elective course; can be used for fine arts credit or PE graduation requirement

Required: Some after-school and weekend commitments

### **Intermediate Dance**

The purpose of this course is to promote a balanced dance program that enables students to develop an appreciation of and skill in the use of the body as a means of communication and expression. Students will receive instruction in both dance techniques and choreographic principles that builds on skills developed in Beginning Dance. They will engage in dance activities designed to increase movement skills (balance, coordination, agility, flexibility, strength and endurance); develop their ability to effectively utilize the elements of dance in performance and the choreographic process; and develop their expressive performance skills. There will be performance opportunities. Additional rehearsal time may be required.

Grade levels: 8-12

Course type: Performance/production based elective course; can be used for fine arts credit or PE graduation requirement

Prerequisite: Beginning Dance or Approval of Instructor

Required: Some after-school and weekend commitments

### **Advanced Dance/Choreography Lab**

This course is designed for advanced dance students and will focus on refining technical proficiency, artistic expression and creative fluency. Students will engage in the processes of creation, rehearsal, and performance of original student dance choreography; ensemble skills; repertoire maintenance, and performance disciplines. A variety of opportunities will be provided for performance of completed works. Additional rehearsal time required.

*The student will be able to:*

- Compose original dance works for performance applying each step of the choreographic process.
- Analyze, critique and discuss choreography in an intelligent, productive manner.
- Learn, recall with accuracy and expressively perform original choreography and the choreography of peers and others.
- Collaborate with others in creating and performing dance works.
- Work creatively and efficiently under deadlines.
- Manage rehearsals effectively.
- Recall choreography and perform it with confidence and accuracy.
- Effectively use technical theatre elements: costumes, make-up, set design, and props.

Grade levels: 8-12

Course type: Performance/production based elective course; can be used for fine arts credit or PE graduation requirement

Prerequisite: Audition or Approval of Instructor

Required: Some after-school and weekend commitments

### **Physical Conditioning for Athletes**

This is a class for interscholastic or club athletes to improve fitness, conditioning, and skills during the off season and the regular season. It will focus on daily stations of weights, plyometrics, footwork, cardio, and individual sport skills to develop a strong, complete and whole athlete. This will cater to the specific skills that each athlete desires to develop. The main coaches on campus will supervise the development of each athlete. This is an opportunity for every sport participant to improve in play over the duration of his/her Gregory School career. The focus in this class is physical improvement with individualized one-on-one attention with a specific coach.

Elements of this class will include:

- Weight training

- Plyometrics
- Footwork
- Conditioning
- Specific sport drills

Grade levels: Grades 9-12

Course type: Elective course; can be used for fine arts credit or PE graduation requirement

Prerequisite: Athletes who are currently/planning on being involved in competitive sports

### Interscholastic Athletics

Fall	Cross Country (Boys and Girls) Swimming (Boys and Girls) Volleyball (Girls)	Winter	Basketball (Boys and Girls) Soccer (Boys)	Spring	Golf (Boys and Girls) Tennis (Boys and Girls) Track (Boys and Girls) Volleyball (Boys)
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## SCIENCE

All students are required to take four years of science in order to be prepared to make responsible decisions in today's world. We recommend that students who anticipate majoring in a science-related field in college take one physics course and one Advanced Placement course in addition to the required biology and chemistry.

### Biology (Lab science)

This course introduces the student to the unifying principles of biology including the overarching theory of evolution by natural selection, as exemplified through experimentation, lectures, readings and discussions on the unity and diversity of life. An overview of the unifying concepts in biology, ecology, and life at the cellular level are covered during the first semester. Areas of study during the second semester include genetics, evolution, and human anatomy and physiology.

Grade level: 9

Course type: Academic course required for graduation

### Chemistry (Lab Science)

This course provides the student with an introduction to the study of matter and its changes. Both qualitative and quantitative approaches are used to develop an understanding of the current models of the nature of matter. Topics addressed include atomic theory, the Periodic Table and periodicity of the elements, chemical bonding, stoichiometry, gases, solution chemistry, oxidation and reduction, nuclear chemistry, acid-base theories, and basic organic chemistry. Laboratory experiences become part of this course once the students develop a basic understanding of chemical principles. The laboratory activities are designed to allow the student to explore the concepts presented in a laboratory environment.

Grade level: 10

Course type: Academic course required for graduation

Prerequisite: Algebra 1

### Physics (Lab science)

Physics is a fundamental field of science which attempts to explain physical phenomena. Investigating the patterns and principles which occur in the natural world develops the students' skills in analytical thinking, allowing them to explain the mechanics of motion, energy, thermodynamics, waves and the electromagnetic spectrum, electricity and magnetism, and quantum mechanics. Exploring these subjects also equips students with the tools to solve problems, and thus to understand the basis for the changes we observe. Emphasis is placed on basic scientific explanations, which are intertwined with ongoing investigation into the relationship between observable realities and their mathematical explanations. Concepts are explored through observation, reading, writing, problem-solving, experimentation, and discussion of our inquiries and findings.

Grade levels: 10-12

Course type: Academic elective course

Prerequisite: Algebra 2 (or concurrent enrollment), and Biology

### Introduction to Botany (Lab science)

Introduction to Botany is a one-semester, project-based advanced biology course with a focus on plants. Students will study plant anatomy and physiology, plant diversity and classification, plant ecology, the importance of plants to biomes, plant genetics, ethnobotany and the basics of gardening. Although the course will demand readings from a

text and online sources, both lab and field work will be emphasized.

Grade levels: 10-12

Course type: Academic elective course

Course offered: First semester elective

Prerequisite: Biology

### **Neotropical Ecology** (Lab science)

This course is a study of many New World tropical ecosystems, including rainforests, cloud forests, dry forests, mangrove swamps, wetlands and volcanic lava flows. Students will learn about nutrient recycling, species diversity and interdependence, evolutionary processes and coevolutionary interactions. There will also be units on the history of tropical fieldwork and advances in the understanding of tropical ecology over the years. Additionally, we will explore the effects of global warming, deforestation, reforestation, fragmentation, and conservation efforts on the health and well-being of the flora and fauna of the Neotropics.

Grade levels: 10-12

Course type: Academic elective course

Course offered: Second semester elective

Prerequisite: Biology

### **Organic and Biochemistry** (Lab science)

Organic and Biochemistry is a full year course that includes lecture and laboratory components. The first semester of this course covers topics in Organic chemistry including classification and identification of organic functional groups, nomenclature of organic compounds, the relationship between structure and physical/chemical properties, and chemical reactions (and basic mechanisms) of organic compounds. The second semester uses these principles to explore more complex biochemical systems. Specific topics in Biochemistry include a study of carbohydrates, lipids, proteins, enzymes, nucleic acids, and metabolism.

Grade levels: 11-12

Course type: Academic elective course

Prerequisite: Chemistry

### **Physical and Analytical Chemistry** (Lab Science)

Physical and Analytical Chemistry is an advanced chemistry course that introduces students to chemical properties of matter and the fundamentals of chemical thermodynamics, molecular structure, spectroscopy and chemical kinetics. The theoretical foundations of thermodynamic principles, principles of kinetics, and molecular structure (including quantum mechanics) are covered and illustrated with a wide variety of examples from the sciences, engineering and technology fields. The course may cover the following topics: chemical kinetics, rates of reactions, gas laws, equations of state, the First Law of Thermodynamics, work and heat, internal energy, enthalpy changes, heat capacity, the Second Law of Thermodynamics, entropy and entropy changes, the Third Law of Thermodynamics, Helmholtz and Gibbs energies, phase stability and phase boundaries, phase diagrams, phase equilibrium, surface tension, capillary action, partial molar quantities, thermodynamics of mixing, chemical potential, solvent and solute activities, colligative properties, the phase rule, thermodynamics of two-component systems, chemical equilibrium, spontaneity of chemical reactions, the response of equilibria to experimental conditions, and equilibrium electrochemistry.

Grade levels: 11-12

Course type: Academic elective course

Prerequisite: AP Chemistry or Calculus (concurrent)

### **Cell Biology and Genetics** (Lab science)

This course will reinforce and then extend the student's understanding of cells and genetics previously experienced in the freshman Biology course. A more in-depth study of the cell as the basic unit of life will be covered in the first semester including an exploration of various types of cell, their common cellular structures and their metabolic functions. The second semester will concentrate on developing the students understanding of genetics and how cells pass on their genetic information. Learning will take place through labs, hands-on activities, research, reading, writing, data analysis, discussion and the use of technology.

Grade levels: 11-12

Course type: Academic elective course

Prerequisite: Biology

Course note: Not recommended to be taken concurrently with or after AP Biology

### **AP Biology** (Lab science)

This course is designed to be the equivalent of a college introductory biology course usually taken by biology majors during their freshman year. The course utilizes a text adopted by many top colleges and includes coverage of the conceptual framework of biology from the various levels of structural complexity, such as molecular, cellular,

organismal, population and ecosystem levels. AP Biology meets three times per week. Students are expected to take the Advanced Placement examination in May.

Grade levels: 11-12

Course type: Academic elective course

Prerequisite: A- (90%) or better in Biology, and B+ (87%) or better in Chemistry

Course note: May not be taken concurrently with Cell Biology and Genetics

### **AP Chemistry** (Lab science)

AP Chemistry is designed to cover the material presented in a college introductory chemistry course. Offering a deeper and broader investigation of the topics covered in Chemistry, AP Chemistry also takes an extended look at the topics of kinetics, thermodynamics, and equilibrium. Laboratory experiments parallel course work. Students who have an interest in chemistry and who fulfill the prerequisites should consider AP Chemistry. AP Chemistry meets three times per week. Students are expected to take the Advanced Placement examination in May.

Grade levels: 11-12

Course type: Academic elective course

Prerequisite: A- (90%) or better in Chemistry, and Algebra 2 or Algebra 2/Trig

### **AP Physics C** (Lab science)

Knowledge of physics is fundamental to understanding the world around us and forms the basis for improved understanding of other sciences. This course emphasizes the in-depth study of a wide range of physics topics and involves the frequent application of advanced algebra, trigonometry, graphical analysis, and calculus to problem-solving. As a result of the math-intensive nature of this course, calculus is a required co-requisite. Lab work and experimentation are emphasized as methods of gathering data for analysis. The course covers the material traditionally presented in an introductory calculus-based college physics class. Newtonian mechanics and thermal energy will be covered during the first semester. The second semester involves the study of waves, optics, electricity, magnetism, and nuclear physics. Students who are interested in physics and fulfill the requirements should consider AP Physics C. AP Physics meets three times per week. Students are expected to take the Advanced Placement examination in May.

Grade levels: 11-12

Course type: Academic elective course

Co-requisite: Calculus

### **Computer Science A** (Not a lab science)

This course serves as an introduction to computer programming. This class focuses on computational thinking and the design of simple computer programs. Students are introduced to a variety of computer languages and learn techniques to create effective and efficient computer code. The main programming language will vary and the course emphasizes many aspects of programming that are not language specific. Additional topics covered include: data storage, computer logic, basic HTML programming, and networking.

Grade levels: 9-12

Course type: Academic elective course

Course offered: First semester elective

### **Computer Science B** (Not a lab science)

This course is a continuation of Computer Science A. The goal of this class is to advance students in their understanding of computer languages and applications. The main programming language will vary and the course emphasizes many aspects of programming that are not language specific. Topics include: program design and implementation, standard algorithms and numerical techniques, simple applications, and building apps.

Grade levels: 9-12

Course type: Academic elective course

Course offered: Second semester elective

Prerequisite: Computer Science A (or sufficient background)

### **Computer Science C** (Not a lab science)

In Computer Science A and Computer Science B students have developed the ability to write computer programs and learned several techniques for doing so. In Computer Science C those programming skills are enhanced by learning more techniques and increasing student awareness of specific algorithms. The course completes the learning objectives needed to take an AP Computer Science exam, but the focus of the programming projects as well as most of the work done is student-directed and aimed at creating functional and innovative computer programs. Students also help intro-level Computer Science students with their understanding, and students will be given time to develop programs which can help in classrooms or in the community.

Grade levels: 10-12

Course type: Academic elective course  
Course offered: First semester elective  
Prerequisite: Computer Science B

### **Computer Science D** (Not a lab science)

In Computer Science A and Computer Science B students have developed the ability to write computer programs and learned several techniques for doing so. In Computer Science C and Computer Science D those programming skills are enhanced by learning more techniques and increasing student awareness of specific algorithms. The course completes the learning objectives needed to take an AP Computer Science exam, but the focus of the programming projects as well as most of the work done is student-directed and aimed at creating functional and innovative computer programs. Students also help intro-level Computer Science students with their understanding, and students will be given time to develop programs which can help in classrooms or in the community.

Grade levels: 10-12  
Course type: Academic elective course  
Course offered: Second semester elective  
Prerequisite: Computer Science C

### **AP Computer Science** (Not a lab science)

In Computer Science A and Computer Science B students have developed the ability to write computer programs and learned several techniques for doing so. In Computer Science C and Computer Science D those programming skills are enhanced by learning more techniques and increasing student awareness of specific algorithms. The course completes the learning objectives needed to take an AP Computer Science exam, but the focus of the programming projects as well as most of the work done is student-directed and aimed at creating functional and innovative computer programs. Students also help intro-level Computer Science students with their understanding, and students will be given time to develop programs which can help in classrooms or in the community.

Grade levels: 10-12  
Course type: Academic elective course  
Prerequisite: Computer Science B

### **Technology Innovations: Design and Build** (Not a lab science)

This course is designed to give you, the student, the opportunity to explore and discover new knowledge, to gain expertise in some new skill, and to share that skill with your fellow classmates. It is the quintessential hands-on course. Each student or group of students will define a project to be developed over the course of the academic year. Learning objectives are set by the students and guided by the teachers. Designing, building and creating are the cornerstones of the class. Projects should therefore aim to produce a physical prototype, but students are otherwise free to choose whatever project they are passionate about and to pursue the skills necessary to see that project to completion, from initial concept to final product. Students are encouraged to share with classmates the skills and techniques they develop during the course of their project - the class is meant to build a collective wisdom. This class is graded pass/fail.

Grade levels: 9-12  
Course type: Performance/production based elective course  
Course offered: First semester/Second semester elective

## **SOCIAL SCIENCES**

### **Topics in World Civilizations: A History through Trade**

The backbone of this course is Europe's interactions with the world. Beginning in ancient times, extending through the Scientific and Industrial Revolutions, and finally tiptoeing into the 20<sup>th</sup> century, students will investigate topically the ways in which world cultures interacted through the exchange of significant commodities and how that interaction fundamentally altered and created the modern world we know today.

Grade level: 9  
Course type: Academic course required for graduation

## **U.S. History:**

### **United States History and AP United States History**

These courses introduce students to the nature and practice of writing history and teach critical reading, writing, research, and analytical skills that are necessary for The Gregory School graduates to excel in college and the world beyond. The specific content and readings are decided upon by the instructor according to expertise and interests, but in every class students experience how history is made, understood, revised, and debated. Themes include cultural encounters and adaptation; complexities of international relationships (including imperialism, ethnicity, and

immigration); the success and failures of social and political movements; the tension between individualism and community throughout American history; and the formation of American cultures (including the political cultures of America). The Advanced Placement section includes intensive, test-based review sessions.

### **United States History**

A history survey course covering United States history from the pre-Columbian era to the 2000s. The course will follow a survey textbook, *America, A Narrative History*, with collaborative projects, including four research projects per year.

Grade level: 10

Course type: Academic course required for graduation

### **AP United States History**

An advanced, writing intensive college-level course that will require weekly essays, extensive reading, research and class discussions. Course would be designed for juniors and seniors who have already completed the U.S. survey course with a 90% or better, or sophomores who have demonstrated the skills and dedication to prepare over the summer to take this course. The class explores themes in US history such as immigration, civil rights, music and art, innovations, resource management, etc. Students will prepare in spring to take the Advanced Placement United States History Test (APUSH), although this test is not required for the course.

Grade levels: 11-12 (10 with petition)

Course type: Academic elective course

Prerequisite: A- (90%) or better in United States History

Course note: Students are permitted to take AP United States History after taking United States History.

## **Advanced Upper School History Seminars:**

### **The History of Sport in America**

This class will introduce students to the major historical transformations in American athletic competitions, from their origins in the colonial era to present times. The course will analyze the evolution of sports as physical competitions, leisure activities, youth rituals, cultural spectacles, loci of masculinity, sites for education, spaces of social protest, important realms of labor, and finally paradigms of big business. In the process of studying these topics, students will build their critical capacity as readers, writers, and historical thinkers. Course is reading and writing intensive.

Grade levels: 11-12

Course type: Academic elective course

Course offered: First semester elective

Prerequisite: U.S. History or AP U.S. History

### **The History of World Sports**

This course is a continuation of The History of Sport in America, a one-semester course. Specifically, we will look at the development of ancient sports and their importance in Greco-Roman society; the emergence of martial sports in medieval, leisure sports in the renaissance, court sports, and the emergence of modern sporting society. The objective will be to enhance students' understanding of the role sports play in the social, religious, military, political and economic life of societies, both modern and ancient.

Grade levels: 11-12

Course type: Academic elective course

Course offered: Second semester elective

Prerequisite: The History of Sport in America

### **Gender and Diversity Studies in World History**

This course raises awareness about the under-explored history of women and minorities. Theoretical studies will be highlighted that discuss the changing views on gender and diversity in historical and social analysis. The contributions of women and minorities, as individuals and groups, will also be individually highlighted. Students will also be asked to design and conduct their own research and social experiments in order to explore what inherent bias and assumptions about gender and minorities exist today in everyday life. This course is envisioned as a fast-paced, collaborative, and fun way to expand understandings of gender and diversity, historically and contemporarily.

Grade levels: 11-12

Course type: Academic elective course

### **Globalization**

Do you know how many countries your t-shirt likely traveled through before reaching you? What do you know about what's happening around the world? Some say the world is "flattening" in a variety of ways, resulting in an increased interconnectivity of its peoples. However, there is a great deal of controversy over the reality of this trend, as well as over the varying impacts this interconnectivity has on the world and its peoples. This course will examine multiple

topics under the theme of “Globalization”, such as global politics, global social movements, and human migration patterns. Throughout, we will explore the impacts of these movements on culture, human lives, and the environment, etc. This is a discussion-based class that relies heavily on global current events, group projects and individual explorations of the threads of globalization.

Grade levels: 11-12

Course type: Academic elective course

Course offered: First semester elective

### **Modern Asia**

When people speak of “Asia” today, what do they mean exactly? Is it a cultural unit made up of nations that share roots in a common civilization or history? Or can we identify a certain historical experience that defines an Asia that is distinctly modern? This course will focus primarily on the countries of China, India, Japan, and the Koreas. It will delve briefly into the histories of each in order to provide some context. However, the key focus will be on the current situations in each country now—economically, politically, culturally. We will explore where each country stands on our global political stage, specifically with each other and with the U.S. This is a discussion-based course that will include readings on history, politics, and culture, and much focus on current events.

Grade levels: 11-12

Course type: Academic elective course

Course offered: Second semester elective

### **AP European History**

This survey course in European History prepares the student for the variety of questions asked and skills required by the AP European History exam. It examines European history from the Renaissance to the present using primary source materials and historiography. Political, economic, social, cultural, and intellectual history are included.

Grade levels: 11-12

Course type: Academic elective course

Prerequisite: A- (90%) or better in U.S. History or Advanced Upper School History Seminar, or B (83%) or better in AP U.S. History

### **AP U.S. Government and Politics**

AP U.S. Government and Politics prepares students for the AP exam in U.S. Government and Politics by simulating a university-level political-science course. It uses college-level textbooks to examine the U.S. governmental system, extending beyond a narrow focus on institutions to study all relevant aspects of politics, including how external factors influence public-policy decisions. In the process, it exposes students to political-science terminology and aims to help students develop their skills of comprehension, analysis, judgment, organization, synthesis, and explanation, both written and verbal, with an emphasis on participation in class discussion.

Grade level: 12

Course type: Academic elective course

Prerequisite: B+ (87%) or better in second semester junior history course, or by petition

### **Economics:**

#### **Microeconomics and Macroeconomics**

Together, these two independent semester courses provide students with an overview that serves as a precursor for courses in related disciplines, a foundation for further study of economics, and a knowledge base for life as an informed worker, consumer, and citizen.

In the first semester, students focus on microeconomics. Trade, supply and demand, and different market structures are the central focus of the semester. The dry, staid vocabulary of economics bursts with new life as students experience the joys of elasticity, opportunity cost, and scarcity. The second semester focus is on macroeconomics and the exciting world of financial markets, interest rates, and economic policy. In both semesters, students read various blogs, journal articles, classic texts, and news stories that catch the fancy of the instructor.

#### **Microeconomics**

Grade levels: 11-12

Course type: Academic elective course

Course offered: First semester elective

#### **Macroeconomics**

Grade levels: 11-12

Course type: Academic elective course

Course offered: Second semester elective

## Psychology:

### Psychology and Literature

This upperclassmen course is designed to familiarize students with basic psychological theories through the study of works that embody such themes as guilt, vengeance, justice, loneliness, loss, and the journeys that encompass our psychological growth toward self-knowledge. While literature invites us to present a “thesis,” psychology requires a “diagnosis” to support our findings. Students will approach psychologists such as Freud, Jung, Skinner, and Rogers to understand how the study of psychology can enrich our understanding of contemporary and classic works, as well as to better know ourselves and those we love. In addition to psychology texts, we will explore *Catcher in the Rye*, *In the Lake of the Woods*, *Equus*, *Streetcar Named Desire*, *Everything That Rises Must Converge: Short Stories*, *The Boy who was Raised by a Dog*, *Ordinary People*, and *The First Time She Drowned*. This is a two- part, two-semester course. Students must take semester one in order to continue into the spring semester, but they may opt to take only semester one of the course. The first four texts will make up semester one. The remaining works will be explored in semester two.

Grade levels: 11-12

Course type: Academic elective course

Course offered: First semester/Second semester elective

Prerequisite for second semester: Must take first semester

### Advanced Psychology

This upperclassmen course is designed to follow the introductory Psychology and Literature course. Using a college level text, students will explore such topics as:

- Neurological and Biological Foundations
- Stress and Health Psychology
- Sensation and Perception
- States of Consciousness
- Learning
- Memory
- Thinking, Language, and Intelligence
- Motivation and Emotion
- Personality
- Psychological Disorders
- Therapy
- Social Psychology
- Thanatology

Grade levels: 11-12

Course type: Academic elective course

Prerequisite: While it is recommended that students take Psychology and Literature as a prerequisite, seniors in good standing (who could not fit Psychology and Literature into their course load during 2017-2018) may opt to take this advanced level course instead.