

2022-2023 | UPPER SCHOOL

Course Catalog

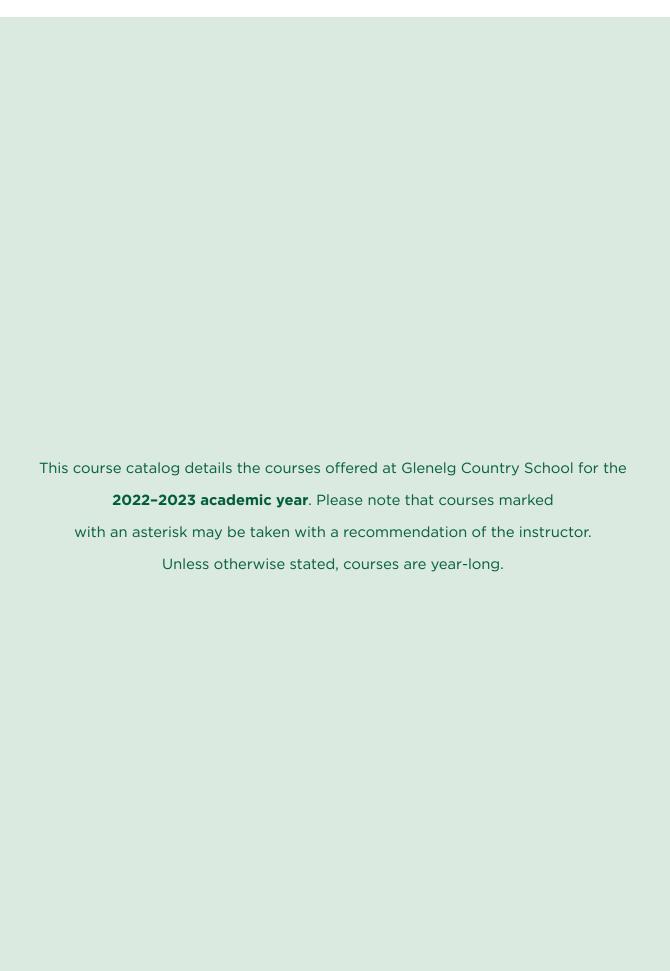


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CORE COURSES REQUIRED FOR GRADUATION

FINE ARTS

To meet graduation requirements, students must take one full year of fine arts. Students may take one or more courses in the arts each year, as schedule allows.

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Freshman Year Requirement

Ancient Studies (2 credits)

☐ Ancient Studies

Sophomore Year Requirement

Western Studies (2 credits)

☐ Western Studies (OL or Honors)

Junior Year Requirement

American Studies (2 credits)

☐ American Literature (OL or Honors)

☐ United States History (OL or Honors)

Senior Year Requirement

Senior Studies (2 credits)

☐ Integrative Seminar (Honors)

■ Modern World History

MATHEMATICS

Four years of high school math required

ш	l Algebra	ı

☐ Algebra II (OL or Honors)

■ AP Calculus AB*

☐ AP Calculus BC*

■ AP Statistics*

☐ Calculus (Honors)

☐ Geometry (OL or Honors)

☐ Pre-Calculus with Trigonometry (OL or Honors)

☐ Statistical Analysis Honors

PHYSICAL EDUCATION

Freshman Year Requirement

☐ A full year of physical education

Sophomore Year Requirement

☐ Fitness

or

Participation in one season of a school sport

or

Participation in an outside physical activity

approved by the department

Junior and Senior Year Option

Strength and Conditioning

Juniors and seniors who wish to enroll in a fitness class may do so. The course for upperclassmen will focus on weight training.

SCIENCE

■ Biology I

☐ Chemistry I (OL or Honors)

☐ Physics I (OL or Honors)

WORLD AND CLASSICAL LANGUAGES

At least two years, through Level 3 of one language.

- ☐ Chinese I
- ☐ Chinese II Honors
- ☐ Chinese III Honors
- ☐ Chinese IV Honors
- ☐ French I
- ☐ French II (OL or Honors)
- ☐ French III (OL or Honors)
- ☐ French IV Honors
- ☐ French V: AP French Language and Culture*
- ☐ Latin I
- ☐ Latin II (OL or Honors)
- ☐ Latin III (OL or Honors)
- □ Latin IV Honors
- □ Latin V: AP Latin Vergil*
- ☐ Spanish I
- ☐ Spanish II (OL or Honors)
- ☐ Spanish III (OL or Honors)
- ☐ Spanish IV Honors
- ☐ Spanish V: AP Spanish Language and Culture*
- ☐ Spanish VI: AP Spanish Literature and Culture*

^{*} Course may be taken with the recommendation of instructor

[†] Elective course available to Grade 9-10 students

ELECTIVE COURSES

BUSINESS & ECONOMICS Year-Long Courses Marketing Honors Fall Trimester Business Management Honors* Winter Trimester AP Macro Economics (Two Trimesters)* Financial Literacy†	FINE ARTS Music Year-Long Courses AP Music Theory Choir† Choir (Advanced) Choir/Instrumental Music Practicum† Instrumental Music† Music Theory I
COMPUTER SCIENCE Year-Long Courses □ AP Computer Science □ Introduction to Software Development and Web Design†	Year-Long Courses ☐ Costuming for Theatre† ☐ Stagecraft† ☐ Stagecraft (Advanced) ☐ Theatre I† ☐ Theatre (Advanced) ☐ Theatre Practicum†
Year-Long Courses Advanced 3D Modeling and Artistic Rendering Civil Engineering and Architecture Honors Digital Electronics Honors Engineering Design and Development Honors Introduction to Engineering Design† The Manual Arts: Tools, Materials, and Methods The Organic Arts: Farming, Food, and Sustainability	Fall Trimester □ Survey of Musical Theatre† Winter Trimester □ Survey of Theatrical Makeup† Spring Trimester □ Survey of Stage Combat† Visual Arts Year-Long Courses □ AP 3D Art and Design* □ AP Studio Art* □ Digital Media† □ Digital Photography □ Digital Photography (Advanced) □ Photography I □ Photography (Advanced) □ Pottery I† □ Pottery II: Independent Study □ Sculpture I† □ Sculpture II □ Studio Art I: Introduction to Art† □ Studio Art II: Drawing, Painting, and Two-Dimensional Art □ Studio Art III: Directed Art Studies □ Studio Art IV: Senior Studio Art □ Video Production† □ Video Production (Advanced)

ELECTIVE COURSES

HUM	AN	ITI	Ε
Year-	Loi	ng	C

Yea	r-Lo	ng Courses
		AP Art History
		AP Comparative Government and Politics*
		AP English Literature* (Seniors only)
		AP Psychology*
		Asian Studies Honors
		Broadcast Journalism
		• • • • • • • • • • • • • • • • • • • •
		• •
		Psychology
		Western Philosophy Honors
	Tuin	nester
FdII		Global Education [†]
	П	Introduction to Creative Writing:
	_	Short Stories†
		Short Stories
Win	iter	Trimester
		Intercultural Leadership
		Introduction to Creative Writing: Poetry [†]
Spr		Trimester
		Global Diplomacy
		9
	_	Singular Forms [†]
	Ц	Personal Leadership [†]
SCI	ENC	E
Yea		ng Courses
		Anatomy and Physiology Honors*
		AP Biology*
		AP Chemistry*
		AP Environmental Science*
		AP Physics C: Electricity and Magnetism*
		AP Physics C: Mechanics*
		Astronomy
		Forensic Science

 $[\]ensuremath{^{*}}$ Course may be taken with the recommendation of instructor

 $^{^{\}dagger}$ Elective course available to Grade 9-10 students

UPPER SCHOOL FOUR-YEAR COURSE PLAN

	GRADE 9	GRADE 10	GRADE 11	GRADE 12
Humanities	Ancient Studies	Western Studies	American Literature (OL or Honors)	Integrative Seminar (Honors)
	7.11.51.51.51.51.51.51.51	(OL or Honors)	United States History (OL or Honors)	Modern World History
Mathematics				
Physical Education	Physical Education			
Science	Biology I	Chemistry I (OL or Honors)	Physics I (OL or Honors)	
World Language				
Electives	Grade 9 may select electives denoted with [†] only.	Grades 10-12 may select any	v elective course for which red	quirements are met.
Trimester 1				
Trimester 2				
Trimester 3				

Student Name	Grade
Advisor Name	

TRIMESTER COURSE OFFERINGS AVAILABLE TO GRADES 9-10

TRIMESTER 1: FALL		TRIMESTER 2: WINTER	TRIMESTER 3: SPRING	
	Introduction to Creative Writing: Short Stories [†]	☐ Introduction to Creative Writing: Poetry [†]	☐ Introduction to Creative Writing: Singular Forms [†]	
	Global Education†	☐ Financial Literacy [†]	☐ Personal Leadership [†]	
	Survey of Musical Theatre [†]	☐ Survey of Theatrical Makeup [†]	☐ Survey of Stage Combat [†]	

Course descriptions are subject to change. Please visit myGCS for updates.

BUSINESS & ECONOMICS

AP Macro Economics (Two Trimesters)

Acceptance to the course is by instructor permission only

AP Macro Economics will prepare students to take the AP exam in May. Students will gain a basic understanding of how households and firms interact in the economy. Special emphasis will be placed on broader economic phenomena such as economic growth, inflation and unemployment. Supply & Demand analysis along with other economic models will be covered. In addition, we will study the capital, labor and international markets as well as the role of government policymaking. At the end of the course students should have a basic understanding of how the overall economy functions.

Business Management Honors (One Trimester) Acceptance to the course is by instructor permission only

Through project-based learning, the class will appreciate how to manage group dynamics and resource allocation. The class will have ownership of several projects during the term and will need to work as a group for successful delivery. Acceptance of accountability, ability to be creative, willingness to work hard and possessing a positive attitude are all positives for this heavily group work orientated class! This course is meant for students that want to learn how to run a business by applying concepts learned in class to real world projects.

Financial Literacy (One Trimester)

Financial Literacy is designed as a one trimester course available to interested ninth and tenth graders. The course will introduce students to basic financial literacy skills to help them make responsible financial decisions. Subjects covered include market structures, budgeting, net worth statements, taxation, banking and credit, insurance, basic finance, investing, retirement planning and management of financial goals. At the completion of the course, students will have the tools needed to get a head start on their personal finances.

Marketing Honors

This course will teach students marketing and business skills that they will apply during a series of hands-on projects throughout the year. The textbook will allow students to comprehend marketing terms and concepts. Using case studies, students will apply Microsoft Excel as an estimating tool & Microsoft Power Point as a presentation tool. In addition, case studies will allow students to learn how managers deal with conflict between employees, consumers and other stakeholders. Current business news will be integrated within the curriculum where possible.

COMPUTER SCIENCE

AP Computer Science

Prerequisite: Introduction to Software Development and Web Design or instructor's approval

This AP course focuses on object-oriented programming methodology with an emphasis on problem solving strategies and developing algorithms. This course is designed to be the equivalent of a first-semester college-level course in computer science.

Introduction to Software Development and Web Design

This course is an introduction to the current techniques and technologies used in website design, game design, databases, and programming. Emphasis is placed on the variety of web site design elements including HTML, XHTML, JavaScript, Cascading Style Sheets, and PHP. Students also explore graphics manipulation with Photoshop. Students learn the syntax, structure and flow of object-oriented programming using Python and C#. Students will obtain the skills necessary to create applications and games in the Windows environment, mobile platforms, and for the web.

ENGINEERING

Advanced 3D Modeling and Artistic Rendering Prerequisites are IED, or CEA, or 3D Sculpture

In this advanced digital CAD (Computer-Aided Design) class students will take their 3D modeling skills to a new level. Working with various digital 3D modeling software packages, students will learn the intricacies of 3D modeling, artistic renderings, video game elements, and 3D printing. Students will be exposed to a variety of tools, materials, and techniques to fabricate their designs. At the end of the class students, will be given the opportunity to sit for a professional certification in their area of interest.

Civil Engineering and Architecture Honors

This course is only available to Grades 10–12 students Prerequisite IED or DE.

Civil Engineering and Architecture is an introductory study of design and construction of residential and commercial building projects. This course introduces students to the art of architecture as well as the varied factors and components involved in structural design and fabrication. We will take a broad view of how the spaces that people utilize daily help shape human behavior, culture, and sustainability. In addition, they will analyzing the careers, mechanics and standards that make up architecture as an industry. The major focus of this course is to expose students to the design and construction of building projects, design teams and teamwork, communication methods, engineering standards, and technical documentation.

Utilizing the activity-project-problem-based teaching and learning pedagogy, students will analyze, design, and build electronic and physical models of residential and commercial facilities. This range of drawing and model-making skills will advance the students seeing, understanding, and presenting the CEA concepts. As well, a writing section will concentrate on conceptualizing and articulating architectural and engineering elements.

Digital Electronics Honors

This course is only available to Grades 10-12 students Co-requisite: Algebra II or higher.

Digital electronics is the foundation of all modern electronic devices such as mobile phones, MP3 players, laptop computers, digital cameras, and high-definition televisions. Students are introduced to the process of combinational and sequential logic design, engineering standards and technical documentation. Students use computer simulations to learn about the logic of electronics while they design, test, and actually construct circuit and devices.

Engineering Design and Development Honors

This course is only available to Grades 10-12 students Prerequisites: Stagecraft or IED and one of the following PLTW classes (POE, DE, or CEA).

This capstone course allows students to design a solution to a technical problem of their choosing. This is an engineering research course in which students will work in teams to research, design, test, and construct a solution to an open-ended engineering problem. The product development lifecycle and a design process are used to guide and help the team to reach a solution to the problem. The team presents and defends their solution to a panel of outside reviewers at the conclusion of the course. The EDD course allows students to apply all the skills and knowledge learned in previous Project Lead The Way courses. The use of 3D design software helps students design solutions to the problem their team has chosen. This course also engages students in time management and teamwork skills, a valuable asset to students in the future.

Introduction to Engineering Design

The focus of IED is the engineering design process and its application. Through hands-on and computer projects, students apply engineering standards and document their work. Students use industry standard 3D modeling software to help them design solutions to proposed problems, document their work using an engineer's notebook, and communicate solutions to peers and members of the professional community.

The Manual Arts: Tools, Materials, and Methods

Prerequisite: Foundations 9

This thoroughly hands-on course will explore a wide variety of tools and methods of working in wood and metal. This course is focused on developing the skills that will give students confidence in working with their hands and making their abstract plans into concrete reality. From hand tools like the axe, adze, froe, spoke shave, drawknife, plane to powered shop tools like the band saw, jigsaw, router, table saw, planer, lathe, joiner, the exposure to tools will be wide. Students will become introduced to the multitude of ways that materials can be wrought: splitting, resawing, joinery, carving, book matching, steaming, finish planing, inlay, turning, marquetry, welding, casting, soldering, and forging are just some. While the main emphasis will be on manual/hand tools computer design and modeling tools (such as CNC cutting and 3D printing) will be introduced for the purpose of planning and prototyping. Skill acquisition will be won while completing personal building projects.

The Organic Arts: Farming, Food, and Sustainability

This thoroughly hands-on course aims to foster the skills of gardening and horticultural, working primarily out of doors in our school garden. Learning by doing, students will create growing spaces (hoop greenhouse, hügelkultur, raised beds, indoor hydroponic garden towers) and grow a variety of edible plants using a host of propagation techniques (from seed propagation, grafting, cutting, division, and layering). Beyond the garden, students will grow indoors during cold months, designing aeroponic and hydroponic systems. They will also learn about plants-especially useful onesacross our campus. Local agricultural efforts, such as Mary Land Farm, Living Lettuce, or Clark Elioak Farm will provide opportunities for students to understand the larger system of food production. This course is also deeply interdisciplinary. The garden, so essential to simply living ("No farms No food"), will demand students to learn about chemistry, economics, local history, national policy, health, culture, meteorology, literature, etc. Students will read some of the seminal writing in the agricultural arts from Jefferson to Thoreau to Pollan and research contemporary issues defined by agricultural concerns.

FINE ARTS

DRAMA

Costuming for Theatre

In the Costuming for Theatre class, students will learn and expand on the following skills: Examine text and character analysis; Explore concept development; Discuss useful collaboration techniques and professional best practices; Discover effective methods for research; Develop an understanding of period silhouettes; Practice rendering techniques using pencil and watercolor; Learn presentation techniques; Learn basic hand and sewing skills; Understand how to read and sew a commercial fashion pattern; Create designs from rough sketch to final costumes. Students will design, make, and finish Costumes and accessories for the variety of plays and musical performances scheduled for the school year.

Stagecraft

Stagecraft is a three trimester, hands-on course designed to challenge students in a fast-pace, STEAM environment. Students will become immersed in the technical aspects of performing arts in the areas of scenic design, lighting and sound, painting techniques, and construction. Students will develop a practical knowledge of tools, material, and building principles in addition to the elements and engineering process of design. The texts used are *Theatrical Design and* Production by Gillette, The Backstage Handbook by Paul Carter, and the operating manuals for the ETC Element, Yamaha TF5 Digital Mixer, and Lincoln MIG Welder. Because the Mulitz Theatre is an active Performing Arts complex, students gain firsthand experience with artistic collaboration, real-word deadlines, and producing a product for invested patrons. Students will learn how to make adaptive, deliberate, and impactful decisions associated within each divisions scheduled performance. Utilizing the activity-project/problem-based teaching and learning pedagogy, this course applies and concurrently develops secondary level knowledge and skills in mathematics, technology, art, and artisanship.

Stagecraft (Advanced)

Prerequisite: Stagecraft

In-depth study of scenic design and theatrical engineering during the first trimester. Expanding on the principles, elements, and engineering process studied in Stagecraft, students will analyze the script chosen for the Upper School Musical and create a fully realized scenic design. Project leadership skills such a budgeting, vertical collaboration, effective scheduling, and artistic ownership will be key developments in producing a successful product for invested patrons. The texts and digital software used are Theatrical Design and Production by Gillette, The Backstage Handbook by Paul Carter, and SketchUp Suit by Trimble. Utilizing the activity-project/problem-based teaching and learning pedagogy, this course applies and concurrently develops secondary level knowledge and skills in mathematics, technology, art, and artisanship.

Survey of Musical Theatre (One Trimester)

Survey of Musical Theatre expands knowledge of the musical theatre canon and the importance of various theatrical pieces/figures in relation to both American and music history. Students will engage in discussion, read articles, watch aspects of theatrical performance. Students will present on research topics and have the option to include participating in live performance and attending live performance.

Survey of Stage Combat (One Trimester)

Stage combat is a one term, hands-on, intensive actor combatant course. The emphasis is on the development of technique within a specified performance, with a focus on accuracy and safety. Students will achieve personal understanding and command of their bodies as they relate to theatrical physical conflict. Students will learn basic unarmed/hand-to-hand, rapier/dagger, quarterstaff, and found-object techniques. The texts include Swashbuckling by Richard Lane and The Stage Combat Handbook by Wolf Christianson.

Survey of Theatrical Makeup (One Trimester)

During this comprehensive hands-on course, discover an exciting variety of theatrical makeup techniques, tips and tricks. In this makeup intensive, students will: become familiar with makeup history, trends and careers; learn hygienic procedures for applying makeup to others; use a variety of application tools - brushes, sponges, air brushes, stencils and fingers; create reusable and disposable prosthetics for face and body, applying makeup to them; work with a variety of sealers, adhesives and removers; apply special effects products such as liquid latex, nose and scar wax, gelatin flesh effects, rigid collodion, and different fake-blood products. This is a hands-on class that will incorporate research, design, and makeup application to a model or self.

Theatre I

The student is introduced to aspects of acting, directing, oral interpretation and playwriting. Improvisation is used as a class tool to develop the imagination and the fundamental tool of risk-taking in performance. In the first semester, students participate in a class performance project. Theatre I is introduced to a survey of theatre history. The spring Evening of the Arts gives students the opportunity to share works developed in class. The year concludes with a performance final. Text: various texts and scripts.

Theatre (Advanced)

Prerequisite: Theatre I

Advanced levels of theatre work in common space and on mutual projects. The student continues to explore a deeper investigation of character development seeking to extend his range of emotional, psychological, and presentational choices. Various styles of theatrical presentation and study of theatre in society is researched. Skills are honed by exploring various methods of "telling the story" in acting, directing, oral interpretation and playwriting. Text: various texts and scripts including *The Essential Theatre* by Oscar Brockett.

Theatre Practicum

Permission of the Instructor is required.

This course is open to students grades 9-12 who wish to take part in two of Choir, Instrumental Music and Theatre courses but due to scheduling limitations, must do so within a single class period. These students will attend both Choir and Instrumental classes, and Choir/Instrumental Lab during Tuesday Enrichment, on a rotating schedule as determined by the instructors. Practicum students will be also responsible for scheduled rehearsals and performances for both disciplines.

MUSIC

AP Music Theory

Prerequisite: Successful completion of Music Theory 1, Independent Study and/or permission of the instructor is required.

AP Music Theory is open to students in grades 11–12 who are advanced in their grasp of music theory, are extremely self-motivated, and wish to explore concepts at an introductory collegiate level. Students will take the AP Music Theory exam in the spring, and must be prepared to have nightly homework and practice which involves written work as well as singing, listening, and using the piano. Students may receive credit for college after completion of this course. Topics studied: ear training, sight singing, dictation, four-part harmonic composition/voice leading, and score analysis. Texts required at the discretion of the instructor, in the past have used Kostka's *Tonal Harmony*, Barron's *AP Music Theory*, and Julie Johnson's *Guide to AP Music Theory*.

Choir

Permission of the Instructor is required.

This year-long course is open to all students and is intended for students who wish to sing in an ensemble while strengthening their vocal technique and music literacy skills. The choir demonstrates these skills in various performances throughout the year, at which they present a wide variety of choral literature including pieces from around the globe and from various historic eras. Enrollment in Choir involves enrollment both in class and in our Choir Enrichment course that occurs during Tuesday Enrichment. Choir may be repeated for credit.

Choir (Advanced)

Successful completion of at least one year of choir and teacher recommendation

This year-long course is a fully auditioned ensemble that rehearses together during the school day and frequently performs at school and community events. The group primarily consists of eleventh and twelfth grade students that have successfully completed one year of choir and a simple audition process in the first two weeks of April. Students that are invited to join the ensemble should expect to learn challenging music quickly, perform for the school and community often, as well as rehearse and perform with the GCS non-auditioned choir during Tuesday Enrichment and at various concerts and competitions outlined at the beginning of the academic year.

Choir/Instrumental Music Practicum

Permission of the Instructor is required.

This course is open to students grades 9-12 who wish to take part in two of Choir, Instrumental Music and Theatre courses but due to scheduling limitations, must do so within a single class period. These students will attend both Choir and Instrumental classes, and Choir/Instrumental Lab during Tuesday Enrichment, on a rotating schedule as determined by the instructors. Practicum students will be also responsible for scheduled rehearsals and performances for both disciplines.

Instrumental Music

Permission of the Instructor is required.

This year-long course is open to all students in grades 9-12 and is intended for the student who enjoys playing music and is personally committed to daily practice at home. The two types of ensemble that the music department offer are The Wind and String Ensemble and the Contemporary Small Group Ensemble. Being a member of our Wind and String Ensemble also requires enrollment in our Band Enrichment course that occurs on Thursdays. Our Wind and String Ensemble performs standard Concert Band and festival repertoire while our Contemporary Small Group Ensemble focuses on a wide variety of genres and styles in addition to learning the fundamentals of basic theory and music composition. Students receive daily instruction on rehearsal techniques and practice strategies, ensemble awareness, and presentation for performances and festivals during the school year.

Music Theory 1

Permission of the Instructor is required.

In studying music theory, the instructor will meet students where they are in terms of understanding of fundamentals of music literacy and tonality. Basics include scales, triads, music reading, fundamentals of piano and aural skills training, and may continue into intermediate topics of harmonization and composition.

VISUAL ARTS

AP 3D Art and Design

Prerequisite: At least two years of any combination of Sculpture or Pottery.

Students will work in materials of their own choice to create a series of complex and unique sculptures based on a central theme. Students will continue to develop their skills and techniques in the language of sculptural expression with the requirements of the AP Portfolio in mind, both concentration, and breadth. There will be summer homework and some work outside of class during the school year.

AP Studio Art

Prerequisite: permission of instructor. At least two years of Studio Art and strongly suggest a summer art course.

The Advanced Placement course in Studio Art is intended for highly motivated students who are seriously interested in the study of art. The course aims at preparing students to produce work to submit for evaluation in a portfolio. The scope of the work should be equivalent to that of introductory college courses in studio art. The three major concerns are:

- 1. A sense of quality in a student's work;
- 2. The student's concentration on a particular visual, interest or problem;
- 3. The student's need for breadth of experience in the formal, technical, and expressive means of the artist.

Digital Media

This year-long survey course introduces students to the multi-facet world of digital media and the most common software to produce it. Students will explore graphic design through the image editing capabilities and expansive features of Adobe Photoshop. Students will then study various types of commercial and documentary-style audio podcast and will be encouraged to develop their own personal voices and styles, while acquiring the practical skills necessary to produce their own broadcast quality podcasts. Interwoven with these processes, students will constantly evaluate the way information is shared. A study of current events covered through social and corporate/traditional media outlets will be vehicle for analyzing how news is being covered, who is covering it, and what information is being shared and what information is omitted. By the end of this course, students will be conscientious consumers as well as capable producers of digital media.

Digital Photography

Prerequisite: Photography I or permission of the instructor.

Students will be taught the basics of digital photography. Students will take pictures and learn how to save, store, and retouch the images. They will work with Adobe Photoshop CS5 to learn how to enhance the images and prepare them for printing. We will print large format images on the classroom inkjet printer. Students will be given variety of assignments. The students must have their own digital camera, provide their own inkjet photo papers and if possible, their own laptops to work individually during the classes.

Digital Photography (Advanced)

Prerequisite: Photography II, Digital Photography, or permission of the instructor.

Students will continue to improve their skills in Adobe Photoshop, Studio Lighting, and on-location photography. They will also explore more in depth the camera RAW files. Students will work on their own projects to develop their individual portfolios for college. This can be done digitally and analog. Students are required to complete 20 11x14 matted photographs and a CD by the end of the year. The instructor will critique the finished work with each student.

Photography I

Open to students in Grade 10, 11, and 12.

Students learn the basic technical skills of black and white photography, learn about darkroom safety, receive an introduction to the history of photography, and create a photographic portfolio with a personal voice. The students should have a working condition 35mm SLR camera (old or new), lenses, if any, and filters, film, and 8x10 photo paper (100 or 250 sheets). The class size is limited to 10 students.

Photography (Advanced)

Prerequisite: Photography I or permission of the instructor.

Students expand photographic skills to a creative/fine art level. They explore other photographic formats. Students also learn more about different kinds of image processing, besides regular black and white

photography, and some digital color. The students should be willing and extremely interested in creative/fine art photos. They must have a working condition 35mm SLR camera (old or new), lenses, if any, filters, film, 8x10 photo paper (100 or 250 sheets), and Holga camera. The class size is limited to 10 students.

Pottery I

This class will introduce the joy of hand-made vessels and sculptural forms in clay. Beginning with very simple and basic techniques such as pinch pots, coil building and slab construction, students will construct a series of simple pots and vessels. They will advance to combining these techniques together to form more intricate pieces, such as teapots and animals. Throwing clay on the pottery wheel will be introduced.

Pottery II

Prerequisite: Pottery I

Students will continue to use hand building techniques to create more complex and exciting forms. We will continue to explore and improve the skills necessary for wheel throwing clay. Dish sets, vases, serving platters and sculptures will be fabricated and students will be encouraged to learn about the properties of different clay and glazes.

Pottery III: Independent Study

Prerequisite: Pottery II

Students must obtain instructor permission to take the class. Each student will decide on an area of study to focus on and make a plan with direction from the teacher. Students will include research and experimentation in their work and keep a journal and sketchbook to record their progress.

Sculpture I

Students will work with the materials and processes available for fabricating three-dimensional objects. They will start with clay, which is the most malleable and versatile of all sculpture materials. Other projects may include bridge design, wire forms, stone carving, wood carving, and mixed media projects.

COURSE DESCRIPTIONS

Sculpture II

Prerequisite: Sculpture 1

This class will continue to explore and combine the basic skills and principles of sculpture. Students will create recycled sculptures, kinetic sculptures in wood and wire, continue to improve skills in carving with stone or wood, and also work with clay.

Studio Art I: Introduction to Art

This is an introductory art course designed for the student who has a general interest in art techniques and processes but not necessarily training or background in art. The course provides an opportunity to work with both two- and three-dimensional media, such as drawing, painting, printmaking, and ceramics. Students are introduced to the basic elements and principles of design, and they are encouraged to experiment with various artistic techniques and representational styles.

Studio Art II: Drawing and Painting and Two-Dimensional Art

Prerequisite: Studio Art I or equivalent.

These courses offer further work in two-dimensional art emphasizing drawing and painting techniques and media.

Studio Art III: Directed Art Studies

Prerequisite: Studio Art II or equivalent.

This is a directed art course designed for the student who has demonstrated the ability to work independently and has a desire to pursue studies in specific art media or techniques. With the guidance of the teacher, the student is expected to write a contract that will specify which media, techniques, or specific problems she/he will explore. The student will work closely with the teacher for artistic and technical guidance and have periodic critiques of each project.

Studio Art IV: Senior Studio Art

Prerequisite: Studio Art III or equivalent.

This course is intended for students who have successfully completed Studio Art III and who wish to continue their work in one or more media in much greater depth. The approach that is taken is generally similar to that followed in Studio Art III. The emphasis is on development of an individual approach to student's work and in the development of a portfolio.

Video Production

Video Production is a year-long, hands-on introduction to all of the elements of digital film making. Students will explore the production and editing processes. From concept to execution, students will produce a series of short creative productions using specific techniques of pre- and post-production. The course will focus on the basic principles of videography, audio recording, and editing as well as the study of narrative production techniques, how to operate video cameras, Adobe Premiere Pro software, and lighting equipment.

Video Production (Advanced)

Prerequisite: Video Production

Advanced Video Production is a year-long course that builds on the techniques and principles learned in Video Production. Students will expand and sharpen their abilities and techniques of video production including scripting, directing, lighting, shooting, and editing. Students will also engage in the analysis and critique of student projects. Documentary and short length features will be produced throughout the year. Students will also produce videos that may be used for marketing and commercial use at Glenelg Country School.

HUMANITIES

In Grades 10-11, students will be recommended for On Level or Honors required courses. This recommendation takes into account reading efficiency and comprehension, frequency of contributions to class discussion, abstract thinking skills, and level of enthusiasm for the Humanities.

American Literature/American Literature Honors Required for all Grade 11 students.

This course synchronizes with U.S. History by exploring American heritage through a chronological view of its literature. Beginning with a brief view of colonial literature and moving through the Enlightenment and the Romantic periods, students are directed to consider the worldviews that underpin and define the form and content of the literary endeavors. Students will consider the process of American writers' adopting and adapting of European intellectual and literary traditions, and the way that they make those traditions particularly American. In addition, students will attempt to define the emerging American culture and character. In the second trimester, the course delves into the Transcendental and Anti-Transcendental movements, culminating in an in-depth study of Melville's Moby Dick. The year winds up with a close look at the emerging American voice in poetry with Whitman and Dickinson. After a brief look at Realism and Naturalism, The Great Gatsby becomes the focus of the study of the Modern period. The course will emphasize skill reinforcement in the areas of reading fluency and basic composition. Students may elect to prepare for the Advanced Placement English Language and Composition exam.

Ancient Studies (2 credits) Required for all Grade 9 students.

This course aims to give all ninth graders the historical perspective and literary tools that will empower them to examine the foundations of different world civilizations. Class members will look closely at the formation of government in early civilizations including Mesopotamia, China, India, Greece, Rome, Nubia, and Egypt, and the Arabian Peninsula as well as the development of several early religions. To better understand the dilemmas human civilizations have encountered, students will study a diverse body of literature—both ancient and modern—that will shed light on what it means to be human. In addition to the religious and philosophical documents used in the study

of history, students will read selections of poetry, one of Shakespeare's plays, and several works of fiction. The central goals of the class are to teach ninth graders how to think critically about historical events and literature and how to express ideas effectively orally and in writing. Students will write extensively in a variety of compositional styles throughout the year to enhance the clarity, precision and organization of their writing. By joining the study of history and literature, the course will not only help students develop the skills required to study, think, and write about history and literature, but it will also require them to question how ancient history relates to their place in the present world.

An Honors program is not offered in the ninth grade.

AP Art History

This course requires the permission of the instructor. The course provides a college-level survey of the visual arts from Pre-Historic times to present. Students will be introduced to a wide range of artistic practices, styles, and media, including painting, drawing, prints, photography, sculpture, installation art, performance art, and architecture. The class will examine the many major periods and movements in the history of art, from Renaissance, Baroque, and Rococo art to Impressionism, Cubism, Abstract Expressionism, and the multiple artistic currents that characterize art being created today. This class also focuses on the many rich collections of non- Western art and architecture from Asia, Africa and Latin America. This class will prepare students for the Advanced Placement Art History examination. Students will be expected to complete extensive nightly readings and to participate actively in class discussions.

AP Comparative Government and Politics

This course requires the permission of the instructor.

AP Comparative Government and Politics is an introductory college-level course in comparative government and politics. The course uses a comparative approach to examine the political structures; policies; and political, economic, and social challenges of six selected countries: China, Iran, Mexico, Nigeria, Russia, and the United Kingdom. Students cultivate their understanding of comparative government and politics through analysis of data and text-based sources as

they explore topics like power and authority, legitimacy and stability, democratization, internal and external forces, and methods of political analysis.

AP English Literature

Limited to seniors, this course requires the permission of the instructor.

This course will prepare students for the Advanced Placement Exam in Literature and Composition. Students will train for the exam as they cultivate advanced reading practices through the careful study of great works, by learning and applying the terms of literary discourse, and by refining their ability to compose logical, coherent, and thoughtful timed essays. In short, students will develop more meaningful habits of reading and writing. The course will continue the study of American Literature from the eleventh grade course, focusing on 20th Century American literature. Texts will include In Our Time, The Grapes of Wrath, All the Pretty Horses, The Ghost Writer, On the Road, and Norton's Anthology of American Literature (shorter 7th ed.) A year long life writing project will also be a component that will help students understand the choices authors make by confronting those same decisions in their own writing.

AP Psychology

This course requires the permission of the instructor or department chairperson.

This course is the scientific study of behavior and mental processes. In AP Psychology, you will learn to think about your thinking and to reason through your actions (and the actions of others). We will also analyze contemporary and historical psychological studies and examine the extant roles of psychologists in society. This class conforms to the College Board topics for the Advanced Placement Psychology Examination, a list of which will be provided in the syllabus. The objectives of this course are to:

- Gain general knowledge of psychological concepts
- 2. Apply and utilize psychology for self-improvement
- 3. Promote self-understanding, and
- 4. Foster interest in the professional field of psychology.

Asian Studies Honors

This year-long elective deepens the exposure students have to some of the most influential cultures in world history. Beginning with Islamic culture, students will explore the integration of spirituality, art, and science as well as the ways Muslim culture influenced the European Renaissance and our contemporary lifestyle. The class will then shift its focus to the influence of the Mongol culture through the social, political, economic, and military achievements of Genghis Khan as recorded by Persian and Chinese sources. Students will then conclude the year by more deeply analyzing leadership in Indian and Chinese cultures as the governance moves from dynastic to colonial to independent rule.

Broadcast Journalism

Prerequisite: Video Production or approval by instructor.

This year-long course is designed for the study and practice of the basic elements of broadcast journalism. The course will emphasize news-gathering, writing, video recording, editing, and the study of mass media's techniques and delivery. Students will learn the basic elements of news value and vocabulary specific to broadcasting They will also identify various news sources and use interview skills to create stories using video and editing software. Students will use professional grade equipment. Completed work will be broadcast to the school community through GCS News.

Broadcast Journalism (Advanced)

Prerequisite: Broadcast Journalism

This year-long course will build upon the skills and techniques students learned in Broadcast Journalism. In this course, students will be encouraged to move from behind the camera to in front of the camera, gaining and demonstrating a comfort with public speaking. The students in Advanced Broadcast Journalism will take on greater leadership roles by determining who is assigned to each story and critiquing completed stories of their peers.

Creative Writing Honors (Advanced)

Co-requisite: American Literature and instructor permission

This year-long, workshop-based course provides an opportunity for students to pursue advanced creative writing work by strengthening student technique. In this honors course, students will fine tune their understanding of the ways writers use language to provide both meaning and enjoyment for their readers. This will require students to study writing outside the confines of the class and dedicate additional time to improving their own craft. In addition, students will create and develop works of literature in various genres, including, but not limited to short story, creative nonfiction, drama, and poetry. Throughout the year, students will workshop their writing with their peers, and finish the year with a portfolio of their own writing. An additional expectation of this honors course is that students actively pursue avenues of publication as suggested by the instructor.

Film Appreciation

This class will introduce students to the film industry and history of cinema through the study of classic and contemporary films. Emphasis will be placed on exposing the class to a wide variety of styles and genres as well as formulating and justifying criticisms of the works. Participation in class discussions, journal responses and written analyses will be requirements for successful completion of the course.

Global Diplomacy (One Trimester)

To become an effective diplomat for international development, business, and peacekeeping necessitates a fundamental understanding of the nature of culture and its influence in inter-cultural communication. This course is designed to provide a framework that stems from personal leadership development to intercultural collaboration on global issues of importance. Case studies in literature and film will help students to understand effective negotiation for mutual advantage in mediating inter-cultural differences. A culminating inter-cultural project will have students learn about the Mega-Diplomacy players and how an individual can partner with one or more of them in addressing a global issue of importance.

Global Education (One Trimester)

This trimester elective establishes a foundation to properly prepare students for their civic and work roles in a globalized environment. In this introductory course, students will investigate the challenges facing the world, recognize different cultural perspectives, be able to communicate with diverse audiences, and know how to use resources to address and act upon global issues. Focus will be given to the progress made with and the challenges to the United Nations 17 Sustainable Development Goals. Students will be encouraged to use their leadership and talent to address at least one world need. This course serves as an excellent precursor to other electives with a similar global perspective like Intercultural Leadership and Global Diplomacy offered to tenth, eleventh, and twelfth grade students.

Intercultural Leadership (One Trimester)

To be a successful leader in this age of globalization necessitates cultural competence. This competence includes the knowledge, skills and dispositions needed to effectively interact with people from other cultures. Understanding the interconnectedness of global issues is essential to successfully address challenges especially in times of crisis. Through literature, film, guest speakers, field trips, and class discussions students will learn about different cultural traditions and world views as well as the importance of leadership in community development. The fundamentals of intercultural leadership will be discussed and students will apply these fundamentals in an independent inquiry project on a topic of global significance.

Integrative Seminar Honors

Required for all Grade 12 students.

Integrative Seminar intends to train students in interdisciplinary study as well as in seminar-style learning. Students consider a topic throughout the year from a variety of disciplinary perspectives drawn from both the sciences and the humanities. During the first trimester, students examine and discuss a series of common readings that reflect the history and development of the most persistent ideas and perspectives bearing on the topic. Faculty presentations and hands-on activities supplement the seminar skills.

During the second and third trimesters, each student undertakes an extended research project in a tutorial relationship with a faculty member, orally presents their findings in the middle of the process, prepares a major paper or project, and submits himself or herself to an oral examination of their work before a faculty committee. All students receive honors credit for their enrollment in this challenging course.

Introduction to Creative Writing: Poetry

(One Trimester)

This trimester long, workshop-based course will explore creative writing through an exploration of varying types of poetry. From traditional forms such as the sonnet and the sestina to nontraditional "nonce" poetic forms such as the golden shovel and the cascade, students will read, write, and share poetry. Working closely with peers on completed poems, students will produce a portfolio of their own poetry written during the course.

Introduction to Creative Writing: Short Stories (One Trimester)

This trimester long, workshop-based course is an introduction to the theory and practice of writing creatively through short stories. Students will have an opportunity to workshop their writing with their peers and share progress as a class. By the end of the trimester, students will produce a portfolio of their own creative short stories.

Introduction to Creative Writing: Singular Forms (One Trimester)

This trimester long, workshop-based course will explore singular forms of creative writing such as the graphic novel, scripts, and song lyrics. Students will focus on the theory and practice of writing creatively to produce their own work and workshop those pieces with their peers. When finished, students will have a portfolio of their own writing in the forms studied during the trimester.

Modern World History

Required for all Grade 12 students.

In this class students will explore the history of the post-World War II era and gain a framework for understanding the forces that shape the modern world. Each section will study the far reaching changes begun after World War II from the rise of superpowers, the decline of colonialism, and the growth of new countries throughout the world. Students will study the effects of the Cold War, technological transformations, and emergence of a global economy. While this class is a forum to discuss current events, the chronological coursework will conclude with a look at the causes and effects of 9/11.

Personal Leadership (One Trimester)

The Personal Leadership course is an opportunity for students to work with a leadership professional. Students will be expanding their leadership potential, creating activities, and developing on campus projects. Projects will require collaboration and organizational resilience. Students will develop as trustworthy, respectful, responsible and fair leaders.

Psychology

This course is a brief introduction to the field of psychology: the study of behavior and mental processes. The course provides a broad overview of the field and introduces the different aspects and subfields of psychology. Topics of study include, but are not limited to: Biological Bases of Behavior, Motivation, Learning, Cognition, Sensation and Perception, Memory, Language, Social Behavior, Personality Development, Intelligence, Therapies, and Psychological Disorders. The course will include the history of the discipline as well as its recent developments and conflicts.

United States History/United States History Honors Required for all Grade 11 students.

In this course, students study the origins and development of the United States through a detailed exploration of its social, constitutional, economic, and political history. The class delves into a chronological study starting with the colonial, revolutionary, and

critical periods and a detailed look at the working of the U.S. Constitution during the first trimester. The focus then shifts to cover the expansion of the nation and the attendant regional struggles culminating in the Civil War. This leads students to the eras of post-war reconstruction, industrialism, imperialism, populism, and progressivism. Finally, students will study the first half of the 20th century-both its international and domestic conflicts. Throughout the course, students will examine primary documents, study works of art, engage in class discussions and debates, write analytical essays, and complete an independent research paper on a topic in United States history. Students may elect to prepare for the AP US History exam, but students who elect to do so will have to do much independent study with guidance from the instructor. They will not receive credit for taking an AP course nor will their AP work directly affect their course grade.

Western Philosophy Honors

This course requires the permission of the instructor. In this class, we will explore the major developments in the history of western philosophy from Plato in Classical Athens to William James in 19th century Harvard University. We will use seminars and essays to explore issues of justice, duties of citizens and states, morality, and the good life. In a course of this nature, strong reading, thinking, and seminar skills will be required and regularly practiced.

Western Studies/Western Studies Honors (2 credits) *Required for all Grade 10 students.*

The Western Studies course is a double period introduction to the art, history, and literature of the Western World. It explores the connections between the creations, events, and the underlying or essential ideas of these cultures. Through fundamental questions that examine the relationship between the structure of power and authority as well as changing beliefs in any given society, students search for answers not only in historical events but also through visual arts, music, architecture, drama, and literature. Tenth grade students will emerge from this class with a deeper understanding of the Western World from the Middle Ages to World War II and with improved writing, speaking, reading, and rhetorical skills.

MATHEMATICS

All students are required to have a TI-84 Plus or TI-84 Plus CE graphing calculator for use in class every day. Students may not use calculators that have computer algebra systems.

Advancing a Level in Mathematics

The usual progression of Math classes for students in the College Preparatory sequence begins with either Algebra I or Geometry in grade 9, and continues through Algebra II, Precalculus, and Calculus. Honors students begin in grade 9 Honors Geometry or Honors Algebra II, and then continue with Honors Precalculus, AP Calculus AB, followed by AP Calculus BC, with AP Statistics as an option in junior or senior year. Multivariable Calculus is offered in years in which there are enough students to form a class.

Students who wish to accelerate their math progress by summer work should consider the difficulty of mastering a year's work in a few hours during the summer. The Mathematics Department believes classroom participation is essential to allow students the opportunity to learn through exploration of mathematical concepts, to communicate ideas by participating in group activities, and to investigate the many applications of their skills to science and engineering fields. Therefore, the Math Department discourages placing out of classes through testing, except in unusual circumstances. But for the student who appropriately desires to advance, the procedure and requirements follow.

Students must have earned an A each trimester in their current math placement, as well as A in the midterm and final exam.

Students are permitted to test out of only one class during their GCS education.

Students entering grade 9 are not permitted to test out of classes beyond Geometry. Testing out of Honors Algebra II or Honors Precalculus will not be approved.

Students obtain a request form from the Math department chair, and obtain signatures from parents, current Math teacher, Math department chair and the Director of Academic Counseling. This form includes a description of the course or tutoring they will use during the summer. A minimum of 100 hours of combined instruction and homework is expected (completed course or minimum 25 hours of tutoring).

Students will be provided with the name and publisher of the textbook and the chapters that will be evaluated.

Students are required to take an exam in the subject on a date in August specified on their application. Students must achieve an 85% average on this exam in order to advance.

AP Calculus AB

Prerequisite: Precalculus Honors and recommendation from instructor.

This course presents techniques and applications of derivatives of functions, which include polynomial, trigonometric, logarithmic, and exponential functions. Applications include, but are not limited to, problems involving related rates, velocity and acceleration, graphing, and maximization and minimization. Additionally, students will learn methods of integration and use them to calculate areas between graphs and volumes of solids of revolution. Students will become familiar with the format of the AP exam and learn strategies to optimize his/her score. The use of a graphing calculator is an integral part of this course.

AP Calculus BC

Prerequisite: Calculus AB and recommendation of instructor.

This course is an extension, not an enhancement, of the AB Calculus course covering all of the topics that would be included in a second semester, college calculus class. Some topics, such as arc length of a curve, surface area, integration by parts, partial fractions and trigonometric substitution, the logistic growth differential equation, Euler's Method, and L'Hospital's Rule build directly off the ideas discussed in AB Calculus. Other topics, such as the calculus of parametric and polar functions, will have starting points that are entirely new. A large portion of the course deals with series and sequence, Taylor Polynomials and approximations and the determination of convergence/divergence through a variety of convergence tests. After the AP exam, students will complete the course by learning about hyperbolic and inverse hyperbolic functions as well as the Wallis product.

AP Statistics

Prerequisite: Precalculus and permission of instructor.

This course will follow the AP Statistics syllabus and integrate use of the TI-84 calculator, statistical capabilities of Microsoft Excel, and other statistical software packages. The themes of the course include experimental design, organizing and exploring data, linear regression and transformations, probability and simulation, and statistical inference (to include confidence intervals, significance tests, and chi-squared tests). Emphasis will be placed on both performing statistical calculations and writing concise and complete interpretations. A significant amount of reading and writing is required for this course.

Algebra I

Prerequisite: Pre-Algebra

This course provides the foundation for further work in mathematics. Students will learn methods of simplifying and manipulating algebraic expressions and solving equations. They will graph functions and investigate patterns and relationship among them. Algebra I will emphasize problem-solving methods that require students to represent problems numerically, verbally, analytically and graphically.

Algebra II

Prerequisite: Algebra I and Geometry
May be taken concurrently with department approval.

Students will be introduced to the properties and graphs of linear and quadratic functions, systems of equations and inequalities, rational, exponential and logarithmic functions, as well as the algebra of matrices and determinants. Probability, statistics and data modeling are also included.

Algebra II Honors

Prerequisite: Algebra I and Geometry and permission of the department. May be taken concurrently with department approval.

This course covers the material described in Algebra II, above, as well as a thorough study of analytic geometry, an introduction to sequences and series, and some trigonometry. The graphing calculator is an integral part of the Algebra II curriculum.

Calculus Honors

Prerequisite: Precalculus and recommendation from instructor.

This content of this course is similar to that of the AB Calculus curriculum but is designed for students who have done well in Precalculus, who are capable of learning the material in Calculus, but who need extra time and practice with each concept. This is an excellent preparatory course for students planning to take Calculus in college. Concepts covered in Calculus include limits, differentiation of various functions, applications of differentiation, and an introduction to integration. The use of a graphing calculator is an integral part of this course.

Geometry

Prerequisite: Algebra I

This course introduces the basics of geometry with an emphasis on algebraic applications of all geometric concepts. Students develop formal proof writing skills through inductive and deductive reasoning. Geometric topics include lines and angles, triangles (congruency, similarity, and special segments), direct and indirect proof, right triangle trigonometry, basic transformations, area and perimeter, volume and surface area, and properties of circles.

Geometry Honors

Prerequisite: Algebra I and recommendation of the department.

This course covers all topics described in Geometry with the expectation that students are able to make connections and demonstrate a higher level of understanding through a variety of real world applications. This course also covers the introduction of vectors in a plane and space, as well as a study of tessellations and the manipulations of shapes in a plane. Students are required to complete a project, which demonstrates their understanding of geometric concepts.

Precalculus with Trigonometry

Prerequisite: Algebra II

This course focuses on solving and graphing functions, including: linear, quadratic, polynomial, rational, logarithmic, and exponential functions. Half of the course is devoted to an in-depth study of trigonometry. Students learn to graph trigonometric functions, manipulate trigonometric expressions using identities, and solve right and oblique triangle problems.

Precalculus with Trigonometry Honors

Prerequisite: Algebra II Honors and recommendation of the department.

Same as Precalculus above, but the class solves more difficult problems and proceeds at a quicker pace. In addition, students will study topics from Analytic Geometry in preparation for the study of Calculus.

Statistical Analysis Honors

The Statistical Analysis course is designed to introduce the methods used in the field of applied statistics. This course is designed to provide a fundamental understanding of descriptive and inferential statistics. Topics include the measures of central tendency, standard deviation, combinations and permutations, probability, sampling, and various distributions. Emphasis is on applications of statistical concepts. It relies extensively on realworld situations, critical analysis, and interpretation of graphs and data. Students will be expected to analyze and write detailed descriptions and interpretations about graphs, data, and procedures.

PHYSICAL EDUCATION/ HEALTH

All ninth graders will take a year-long course in PE. Students will be engaged in an in-day Physical Education class, the primary focus of which is physical fitness and an overall approach to wellness. Approximately one quarter of the year, students will be engaged in a Red Cross First Aid and CPR certified training in addition to a wellness curriculum.

Fitness

Tenth grade students must either enroll in a onetrimester course in Fitness, participate in at least one season of a school sport, or request an exemption for participation in a sport outside of school.

Strength and Conditioning

Juniors and seniors who wish to enroll in a fitness class may do so. The course for upperclassmen will focus on weight training.

SCIENCE

Anatomy and Physiology Honors

Departmental permission required.

Prerequisites: Biology and Chemistry Honors

This course is directed toward students with an interest in the biomedical sciences. Students will investigate various aspects of the human body, including: anatomical terminology, body organization, and histology, as well as the integumentary, skeletal, muscular, nervous, cardiovascular, respiratory, and digestive systems. Laboratory work includes brain, heart, and whole animal dissections.

AP Biology

Departmental permission required.

Prerequisites: Biology and Chemistry Honors

This course is the equivalent of a two-semester college introductory biology course, providing students with the conceptual framework, factual knowledge, and analytical skills necessary to critically approach the rapidly changing science of biology. Course content is built upon the four Big Ideas: evolution, cellular processes, genetics and information transfer, and biological interactions. This is a rigorous curriculum that demands personal responsibility from the student and is designed to prepare students for the Biology College Board Advanced Placement® Exam.

AP Chemistry

Departmental permission required. Prerequisite: Chemistry Honors

Co-requisite: AP Calculus AB or Calculus Honors

Advanced Placement Chemistry builds on the principles of Honors Chemistry and is designed to be the equivalent of a first-year college chemistry course. This course analyzes chemical principles in great depth, emphasizes mathematical relationships, and concentrates on lab skills and inquiry-based laboratory design. The class will follow nine units as outlined by the College Board®:

- 1. Atomic Structure and Properties
- 2. Molecular and Ionic Compound Structure and Properties
- 3. Intermolecular Forces and Properties
- 4. Chemical Reactions
- 5. Kinetics

COURSE DESCRIPTIONS

- 6. Thermodynamics
- 7. Equilibrium
- 8. Acids and Bases
- 9. Applications of Thermodynamics

A carbonless copy lab notebook will be required for the class.

AP Environmental Science

Departmental permission required.

Prerequisites: Biology and Chemistry.

Advanced Placement Environmental Science is a course that integrates various branches of science as well as topics in humanities and policy in order to develop a well-rounded understanding of the human impact on the natural world. The course focuses around four Big Ideas as outlined by College Board®: Energy Transfer; Interactions between Earth Systems; Interactions between Different Species and the Environment; and Sustainability.

Topics covered include ecosystems, biodiversity, populations, earth systems and resources, land and water use, energy resources and consumption, pollution, and global change. Students will work to develop skills in concept explanation; visual and textual analysis; experimental design; data analysis (including field work); quantitative methods; and proposing environmental solutions.

The course is designed to be the equivalent of a one-semester, introductory college course in environmental science, and students will work to prepare for the Environmental Science Biology College Board Advanced Placement® Exam.

AP Physics C: Electricity and Magnetism

Departmental permission required.

Prerequisite: Physics Honors and AP Calculus AB or

Calculus Honors

Co-requisite: AP Calculus BC.

AP Electricity and Magnetism is an in-depth exploration of topics that are usually part of a second semester calculus-based physics course in college. Calculus techniques will be used frequently to solve problems or derive relationships. Students should have already completed a course in introductory physics and are

likely to be concurrently enrolled in AP Mechanics C. The course will begin with an introduction to electrostatics, and electrical properties of materials. Electrical circuits, both DC and AC, will be covered in depth and the course will include significant lab experience in this area. Magnetic fields, magnetic properties of materials and electromagnetism will make up the final portion of the course.

AP Physics C: Mechanics

Department permission required. Prerequisite: Physics Honors

Co-requisite: AP Calculus AB or Calculus Honors, if not

already completed.

AP Mechanics is an in-depth exploration of topics in that branch of physics that encompasses motion, forces and energy. Often referred to as "Newtonian", the foundation of the approach is grounded in the Laws encapsulated by Sir Isaac Newton, but also relies heavily on an understanding of conservation laws and the results of observation and experimentation over the centuries before since Newton. Students will learn to apply an understanding of why objects move, and how they move to help them see the many applications of physics in their lives. They will apply calculus techniques to solve problems, or derive relationships, throughout the course. Although a corequisite, it is strongly recommended that students complete a Calculus course prior to taking this class.

Astronomy

Co-requisite: Physics, if not already completed.

Why does the Moon have phases? How do stars shine? What are black holes? This course introduces students to the study of astronomy, including its history, basic scientific laws that govern celestial motion, and the technology that allows astronomers to explore the unknowns of the universe. Students will learn about the properties of planets, the life cycle of stars, and modern space exploration methods.

COURSE DESCRIPTIONS

Biology I

Prerequisite: Middle School Physical Science course

This course provides an introduction to the many metabolic processes and ecological interactions that collectively contribute to the sustainability of life. Through classroom discussions, laboratory investigations, and our vast collection of living botanical and animal specimens, students are provided with the skills, strategies, and knowledge that will encourage the development of intellectual curiosity and scientific inquiry.

Chemistry I

Prerequisite: Algebra I

This introductory chemistry course focuses on the fundamental principles of chemistry and their practical applications. Topics include atomic theory, bonding, formulae and nomenclature, molecular structures, phases of matter, chemical reactions, thermochemistry, acid-base, and nuclear chemistry. Students examine topics qualitatively and quantitatively through laboratory experiments to ascertain the validity of chemical principles.

Chemistry I Honors

Departmental permission required. Co-requisite: Algebra II Honors

This course is designed for students with exceptional math ability and interest in science who desire a more intensive introductory chemistry course. Topics include those taught in Chemistry as well as additional focus on thermochemistry, equilibrium, and acid-base chemistry. This course explores concepts in greater depth than Chemistry, focuses on mathematical relationships, and examines exceptions to general rules in preparation for AP Chemistry. This course is required for students planning to take AP Chemistry.

Forensic Science

Prerequisites: Biology and Chemistry Co-requisite: Physics, if not already completed.

Forensic Science is an interdisciplinary course designed to introduce students to the many aspects of crime scene investigation. Students will use concepts introduced in basic biology, chemistry, and physics courses to further investigate the scientific theories behind working a crime scene, fingerprinting, blood spatter analysis, toxicology, DNA fingerprinting, hair and fiber analysis, and more. Frequent laboratory work will reinforce concepts presented in class.

Physics I

Co-requisite: Algebra II

This course covers the major concepts in physics in an interactive, project-based curriculum. Students apply math and reasoning skills and use graphical methods to discover relationships between quantities. There is also extensive focus on developing good problemsolving strategies and making scientifically sound predictions. Students investigate kinematics, the laws of motion and energy, electricity and magnetism, and the properties of sound and light waves.

Physics I Honors

Departmental permission required. Co-requisite: Precalculus

This course covers the major concepts in physics in an interactive, project-based curriculum. Students apply math and reasoning skills and use graphical methods to discover relationships between quantities. There is also extensive focus on developing good problemsolving strategies and making scientifically sound predictions. Students investigate kinematics, the laws of motion and energy, the properties of sound and light waves and electricity and magnetism.

WORLD AND CLASSICAL LANGUAGES

Glenelg Country School offers Chinese, French, Latin, and Spanish. For Levels II and III of French, Latin, and Spanish, students have the option to obtain honors credit through supplementary work that expands their vocabulary and deepens their understanding and use of the language. Level IV of these languages is only offered as an honors course. All Chinese classes from II through IV are considered honors level.

Chinese I

Chinese I is the first year of a four-year course where students will learn and improve their Chinese communicative proficiency in listening, speaking, reading, and writing. Students will learn both pinyin (a 70-year-old system designed to assist foreigners in their pronunciation of Chinese characters) and Chinese characters from day one. The class will focus on real-life communication skills and introduce Chinese cultures such as: festivals, tea, traditional medicine, cooking, and calligraphy. Simultaneously, the course will learn Chinese pop culture, geography, poem, literature, and discuss relevant current events through YouTube, news, and movies. Text: *Integrated Chinese Volume 1*, 4th edition.

Chinese II Honors

Prerequisite: Chinese I or equivalent.

The second year of Chinese consists of a continued improvement in the four language skills. Students will learn how to talk about school life, shopping, traffic, ordering food in a restaurant, asking and telling the directions, talking about the weather, planning a birthday party, and seeing a doctor. Also, the students will systematically study Chinese culture and history through two books, "Common Knowledge About Chinese Culture" and "Common Knowledge About Chinese History." The class will continue to learn Chinese pop culture and discuss relevant current events through YouTube, songs, news, and movies. Text: Integrated Chinese, Volume 2, 4th edition; Common Knowledge About Chinese Culture; and Common Knowledge About Chinese History.

Chinese III Honors

Prerequisite: Chinese II or equivalent.

This course reinforces communication skills and includes more sophisticated writing and spontaneous speaking, roughly 80% of which will be in Chinese. Events will discuss in the present, past, and future tenses. Topics include dating, renting an apartment, sports, travel, going to an airport, the first day of school, and living at a dorm. The students will read "Tao De Ching," "The Art of War," and "Three Character Classic." Reading those books will help the students better understand the context to how the modern Chinese may think. Text: Integrated Chinese, Volume 3, 4th edition; Common Knowledge About Chinese Culture; and Common Knowledge About Chinese History.

Chinese IV Honors

Prerequisite: Chinese III or equivalent.

This course reinforces communication skills and includes more sophisticated writing and spontaneous speaking. Ideally the class conducts 90% of the course in Chinese. A heavy focus on improving their speaking skills over the past three years will allow the students to become relatively fluent. Events discuss in the present, past, future tenses, and passive voice. Topics include talking about ordering at a restaurant, go shopping, choosing the school courses, making friends, the internet, finding a job, and education. The students will continue reading Tao De Ching, The Art of War, and Three Character Classic. Reading those books will help the students to the general Chinese way of think. Students continue to study real-life skills through reading, literature, singing, movies, news, and cooking. Text: Integrated Chinese, Volume 3, 4th edition.

French I

French I introduces the French language to students while placing it in the context of the vibrant global Francophone culture. Through this course, students will be able to interpret written texts and spoken communication through authentic materials (such as newspapers, menus, songs, and videos). Additionally, students will be able to present their thoughts through both conversation and written expression. The focus of French I is on basic, real-life situations such as introducing oneself, expressing likes and dislikes, ordering in a restaurant, describing people and objects, making purchases, and talking about past events. Text: Look I Can Talk 1 and various novels

French II and French II Honors

Prerequisite: French I or equivalent.

French II continues building upon the novice level French language skills, while placing it in the context of the vibrant global Francophone culture. Through this course, students will be able to interpret simple written texts and spoken communication through authentic materials (such as newspapers, menus, songs, and videos). Additionally, students will be able to present their thoughts through both conversation and written expression. The focus of French II is to expand on basic, real-life situations such as describing daily activities, working with the past tenses in simple sentences, expressing ideas, exploring Paris, Quebec, and Sénégal, and creating a recipe. Texts will include various short novels and other readings.

French III and French III Honors

Prerequisite: French II or equivalent.

French III exposes students to the more advanced syntax and vocabulary of the French language in addition to concepts such as cultural relativism. Students are expected to have a good understanding of present, passé composé, and imperfect tenses as well as the use of object pronouns, reflexive verbs, and all remaining irregular verbs. The focus of French III is on more challenging, real-life situations such as talking on the phone, analyzing the role of technology, expressing hypotheticals, discussing one's ancestry, and running errands. The students will also read selections from the novel *Le Petit Nicolas*. Class will be conducted in

French with occasional English explanations of the most challenging grammatical concepts. Texts will include various novels and other short readings.

French IV Honors

Prerequisite: French III or its equivalent.

French IV builds upon the past three years of study in French and introduces students to the more advanced grammatical concepts. Students are expected to have a good understanding of present, past, and future tenses, the imperative and conditional moods, and the use of pronouns in French. Like its prerequisites, French IV uses authentic materials to expose students to the grammar and vocabulary of French while placing it in its cultural context. The focus of French IV is on more advanced, real-life situations such as reviewing a film, describing the role of an artist with his art, expressing obligation, explaining the role of history on the present day, using more complex hypotheticals, and using French in the business world. The year will culminate in the reading of Le Petit Prince, discussing through written and verbal expression the themes and morals of the book as well as its social and historical context. This course is conducted entirely in French. Texts: Le Petit Prince.

French V: AP French Language and Culture

Prerequisite: French IV or equivalent, plus permission of the instructor.

The Advanced Placement French Language and Culture Exam focuses on proving that the students can interpret written and oral French, present their ideas in both written and spoken French, and communicate on an interpersonal level both in writing and speech. Thus, the goal of this course is to provide the motivated student with proficiency in the French language such that he or she can communicate in a variety of contexts using authentic materials ranging from news websites to e-mail, from conversations on Skype to chapters of a novel, and from critical essays to podcasts. Students are expected to have a good understanding of all tenses, moods, and grammatical concepts—the focus in this class is on perfecting what they already have learned. Successful completion of this course and the exam is approximately equivalent to a third-year college course in French. This course is conducted entirely in French. Texts: Thèmes.

Latin I

This course offers an introduction to the grammar, syntax, vocabulary, and etymology of Latin by way of mythology. Students will begin reading mythological novels written entirely in Latin by the end of the second week and will create stories of their own throughout the year. In this course, students will also gain an appreciation of the mechanics of English grammar through the act of reading in Latin. Texts: Familia Mala: Saturnus et Juppiter, Pluto: Fabula Amoris, and Ego Polyphemus.

Latin II and Latin II Honors

Prerequisite: Latin I or equivalent.

Latin II rounds out the student's introduction to the Classical Latin language and Roman culture by continuing the storybook approach presented in year one. Students in year two will be encouraged to be active participants in their own language training by giving presentations comics they have written and drawn. Texts: Via Periculosa, Labyrinthus, and Filia Regis et Monstrum Horribile.

Latin III and Latin III Honors

Prerequisite: Latin II or equivalent.

Students in Latin III get an opportunity to both consolidate their knowledge of Latin grammar as well as begin reading longer novels written entirely in Latin. Latin prose-composition exercises will increase in complexity, requiring students to imitate the styles of various authors as they come to have a greater appreciation for the different ways in which ancient authors composed their works. Texts: *Perseus et Medusa, Perseus et Rex Malus, Leonidas,* and *Commentarii de Puero Inepto*.

Latin IV Honors

Prerequisite: Latin III or equivalent.

Students in Latin IV get a chance to read many of the canonical authors of ancient Rome in a class focused primarily on the epic and lyric poetry of Catullus, Horace, and Ovid. In this course, students will be expected to give oral and written reports on topics germane to our readings. Latin prose-composition exercises will

increase in frequency, calling for students to imitate the styles of the poets of ancient Rome. At the end of year IV, students should be ready for the AP Vergil curriculum. Texts: Love and Transformation: An Ovid Reader, LaFleur, ed., Writing Passion: A Catullus Reader, Collins Gem Latin Dictionary: Second Edition

Latin V: AP Latin Vergil

Prerequisite: Latin III/IV at the discretion of the instructor, plus permission of the instructor.

This course prepares students to take the Advanced Placement examination for Latin, with an emphasis on the epic poetry of Vergil and the historical writing of Julius Caesar. In addition to reading the works that inspired such authors as Dante, Chaucer, and Milton, students in this course will begin to think more critically about the Latin they are reading, both in terms of its content as well as the author's diction. Students in AP Latin will also become proficient in the scansion of dactylic hexameter as well as memorize sections of the poem which they will recite aloud in class. Texts: Vergil's Aeneid Reader, Pharr, ed., Caesar, Selections from Caesar's Commentarii De Bello Gallico, 2012, Bolchazy-Carducci Publishers., Collins Gem Latin Dictionary: Second Edition

Spanish I

Spanish I is designed to be an introduction to the language and help students acquire communicative proficiency in each of the four language skills: listening, speaking, reading, and writing. The class will focus on basic communication skills and give students a working vocabulary for basic, real-life situations through comprehensible input strategies. At the same time, the course introduces Hispanic culture, geography and relevant current events. We will use online activities to reinforce concepts learned. A combination of the curriculum *Entre Culturas 1* by Wayside publishing and *Look I Can Talk* and *Brandon Brown Quiere un Perro* for reading is used as well as accompanying audio and visual activities.

Spanish II and Spanish II Honors

Prerequisite: Spanish I or equivalent

This is the second year of the three-year sequence and is designed to build on the skills acquired in Spanish I. Grammar concepts are reviewed and then a more intense study of verb types, tenses, and object pronouns is begun. Students are expected to have a good command of the present, preterit, and imperfect tenses as well as the imperative mood by the end of the course. Concepts of grammar are reinforced with unit projects. Students will also study Hispanic cultures in the target language. We will use online activities to reinforce concepts learned. Honors students will participate in the National Spanish Exam at level II in April. The curriculum, Wayside Publishing's *Entre Culturas 2* is used as well as accompanying audio and visual activities.

Spanish III and Spanish III Honors

Prerequisite: Spanish II or equivalent

This course is the third year of the three-year sequence in Spanish. It is designed to impart a greater awareness and understanding of the heritage and culture of the Spanish-speaking world through language, excerpts from Hispanic literature, and history. Along with a review of grammar, new structures are introduced to complete the basic Spanish grammar. In addition to structures learned in Spanish I and II, students are expected to have a good command of the imperfect vs. preterit, future, present perfect and pluperfect tenses, and the present subjunctive mood by the end of the course. We will use online activities to reinforce concepts learned. Honors students will participate in the National Spanish Exam at level III in April. The curriculum, Wayside Publishing's Entre Culturas 3 is used as well accompanying audio and visual activities.

Spanish IV Honors

Prerequisite: Spanish III or equivalent

This course is designed to be a pre-AP year. It will begin with a review of all the grammar learned in Spanish I through III. At this level, however, emphasis is placed on reading in the target language while working on gaining aural/oral proficiency. Students learn the skills of gaining meaning through context clues and cognates, and inferring meaning. There are several major written and oral projects of a creative nature. Some works of twentieth century Spanish and Hispanic literature will be investigated, read, analyzed and discussed. The course is taught almost totally in the target language. We will use online activities to reinforce concepts learned. Students will participate in the National Spanish Exam at level IV in April.

Spanish V: AP Spanish Language and Culture Prerequisite: Spanish IV or equivalent and permission

Prerequisite: Spanish IV or equivalent and permission of the instructor.

The AP course for the motivated learner is designed to prepare the student for the rigors of the exam given each May by the College Board. This exam tests the ability to do third year college work in all four areas of speaking, reading, writing, and listening. As additional preparation, students will participate in the National Spanish Exam at the end of the year. The grammar learned in levels I-IV is reentered at this advanced level. The course is taught entirely in the target language. The books include an AP Prep workbook in addition to the regular text. There are also many outside readings.

Spanish VI: AP Spanish Literature and Culture

Prerequisite: Spanish V or equivalent, plus permission of the instructor

This AP course is designed to prepare the student for the AP Spanish Literature Exam given each May. It is designed for seniors who have already scored a 3 or above on the AP Spanish Language exam and for others at the discretion of the teacher. Students will read and discuss the entire body of literature tested by the exam as found in Azulejo, Anthology and Guide. It will be necessary to read both during class and in isolation in order to get through authors from Cervantes to Borges, the Middle Ages to the present. Some literary investigation is also required in the target language.



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