

Scarsdale High School



COURSE CATALOG
2023-24

TABLE OF CONTENTS

GENERAL INFORMATION	4-9
GRADUATION REQUIREMENTS	4-5
NEW YORK STATE TESTING	5
SENIOR OPTIONS	5
GRADING SYSTEM	6
COLLEGE-LEVEL COURSES	6
ACADEMIC HELP	6-7
COURSE CODES	7
PASS/FAIL	7
ACADEMIC INTEGRITY	7
SPORTS	8-9
COUNSELING SERVICES	10-11
COUNSELING AT SCARSDALE HIGH SCHOOL	10
THE COLLEGE TESTING PROGRAM	11
COURSE DESCRIPTIONS	12-45
ART	12-16
ELECTIVES IN DESIGN, ENGINEERING, & TECHNOLOGY ..	16-18
ENGLISH	18-21
HEALTH	21
MATHEMATICS	21-25
PERFORMING ARTS	25-28
PHYSICAL EDUCATION	28-29
SCIENCE	29-32
SOCIAL STUDIES	33-38
WORLD LANGUAGES	38-45
SPECIAL PROGRAM OPPORTUNITIES	46-48
BOARD OF COOPERATIVE EDUCATIONAL SERVICES	46
LEARNING RESOURCE CENTER	46
CIVIC EDUCATION PROGRAM	46
LIBRARY	46-47
OUTLOOK	47
SCARSDALE ALTERNATIVE SCHOOL	47-48

GENERAL INFORMATION

GRADUATION REQUIREMENTS

To graduate, students must complete 22 credits of study. The following 18½ credits are required:

English	4 credits
social studies	4 credits
science	3 credits
(biology, a physical science, and one additional science)	
mathematics	3 credits
world languages	1 credit
art and/or music	1 credit
health	½ credit
physical education	2 credits

The art/music requirement can be satisfied by taking courses offered by the Department of Fine Arts and/or the Department of Performing Arts, some of which involve participation in the high school's major performance organizations, such as band, chorus, orchestra, wind ensemble, and drama groups.

All would-be graduates of Scarsdale High School must pass five New York State Regents examinations, in English, mathematics, science, United States history, and world history.

MINIMUM CREDIT REQUIREMENTS

All students must take a sufficient number of courses to meet the minimum credit requirement for their grade.

Grade 9	5 credits
Grade 10	5 credits
Grade 11	4½ credits
Grade 12	4 credits

Each quarter all students must take at least 20 periods per week of courses (exclusive of physical education).

PROMOTION REQUIREMENTS

In order to be promoted to the next grade and enjoy the privileges associated with it, students must earn a minimum number of academic credits.

To Enter Grade	Academic Credits
12	14
11	8.5
10	4

ENGLISH AND SOCIAL STUDIES

All students must be continuously enrolled in both English and social studies courses during both semesters.

ENGLISH AS A NEW LANGUAGE (ENL)

The ENL program is for students who, by reason of foreign birth or ancestry, speak or understand a language other than English, speak or understand little or no English, and require support in order to become proficient in English.

All Scarsdale High School students must pass a New York State Regents examination in English before receiving a high school diploma. ENL students are not permitted to use dictionaries or glossaries during the English Regents exam.

SUMMER SCHOOL CREDIT

Scarsdale High School awards credit for summer school courses when they are taken for credit recovery or to improve a course grade. Both the original and summer school grades appear on the student's transcript and are used in computing the student's grade point average. If a student retakes a Regents examination, the new Regents grade is not used to re-calculate the final grade in a course. Students seeking credit for a summer school course must secure in advance the written permission of the department chairperson and the dean.

Scarsdale High School awards no credit for courses taken for enrichment. Summer school course work for acceleration is not permitted in any subject other than mathematics, and then only in very exceptional circumstances.

GRADUATION EXERCISES

A student who has not completed all graduation requirements established by the Scarsdale Board of Education and the New York State Board of Regents may participate in June graduation exercises if the student has:

- earned a minimum of 18 credits
- provided his or her dean with an approved summer school program that will allow for the completion of all requirements by the September following graduation

NEW YORK STATE REQUIRED TESTING

In order to receive a high school diploma, a student must pass five examinations, four of which must be Regents examinations or other New York State approved alternatives (one each in English, mathematics, science, and social studies). The fifth assessment may be one of the following:

- a fifth Regents examination
- a state-approved pathway assessment
- a career and technical education (CTE) pathway assessment (following the successful completion of an approved CTE program)
- an arts pathway assessment
- one of the following state-approved alternative assessments (minimum passing score listed for each):

English

AP = 3

Mathematics

AP = 3

Science

AP Biology = 3

U.S. History

AP = 3

Global History

AP = 3

This New York State Department of Education requirement is supplementary to Scarsdale High School's graduation requirements.

For students classified by the Committee on Special Education, scores of 55 to 64 are passing scores on any Regents examination required for graduation with a local diploma.

All Regents examinations are offered in June. Some Regents examinations are offered in January. Although Regents examinations are not given at Scarsdale High School in August, the deans can help students arrange to take them at other high schools.

SENIOR OPTIONS

The Senior Options program takes place during the last six weeks of the senior year. Participants learn and grow in new ways by serving an internship and/or performing community service.

Midway through the school year, seniors select and collaborate with a mentor from the high school faculty to plan the Senior Options experience. Once it is underway, they meet with their mentors weekly to chart and reflect on their field work and their interactions with sponsors and collaborators.

The Senior Options Steering Committee reviews proposals and monitors projects, each of which culminates in a presentation for classmates, parents, faculty, staff, and sponsors. Grades for this graduation requirement are awarded on a pass/fail basis.

Students are issued quarterly report card grades. The final course grade is cumulative, a combination of grades from individual marking periods and a final assessment, if one is given.

GRADING SYSTEM

Letter Grade	Numerical Equivalent	Grade Point Equivalent
A+	97 and above	4.4
A	93-96	4.0
A–	90-92	3.7
B+	87-89	3.4
B	83-86	3.0
B–	80-82	2.7
C+	77-79	2.4
C	73-76	2.0
C–	70-72	1.7
D+	67-69	1.4
D	65-66	1.0
F	below 65	0.0

Each department has its own policy for weighting individual marking periods. Students may obtain this information from their teachers and the department chairs.

For seniors, the first-semester grade appears on the mid-year college report.

COLLEGE-LEVEL COURSES

Advanced Topics courses, the high school's most rigorous offerings, are designated with a "5" as the last digit of the course number. Course descriptions appear in the following departmental sections of this catalog: art, English, mathematics, music, science, social studies, and world languages. Students in these college-level courses may choose to take Advanced Placement (AP) examinations linked to the subject area. Offered in May, they are administered by the College Board. Students for whom the AP exam fee presents a financial hardship are eligible to apply for a fee reduction through the Counseling Department. Except in rare cases (and only following the principal's approval of recommendations from both the dean and the department chairperson), students are not permitted to drop an Advanced Topics course after the course has begun.

ACADEMIC HELP

Scarsdale High School provides a number of resources for students who need extra academic help. First and foremost among them are a student's teachers. When not teaching classes, they are available to provide students with individualized assistance, support, and enrichment materials. They post their schedules in their classrooms and offices at the start of the school year, explain procedures for making appointments, encourage students to seek them out, and invite students to meet with them. By engaging in this process, students become increasingly responsible and independent, develop organizational skills and learning approaches that foster productive one-to-one meetings, and build important relationships that support and sustain them throughout their years at the high school. The mathematics and world languages departments also offer similar assistance in their departmental centers. Signifer, the Scarsdale High School Honor Society, provides

student tutors. Students seeking assistance can request a tutor by completing the request form that is available under “Activities”—> “Signifer” on the Scarsdale High School web page.

COURSE CODES

This is the key to coded course numbers:

- first digit represents department
- second digit represents year of sequence
- third digit represents level of work

0-level courses are remedial.

1-level courses are foundational.

2-level courses are regular.

3-level courses are accelerated.

4-level courses are honors.

5-level courses are advanced topics.

Enrollment in all remedial, skills, honors, and college-level courses requires permission of the department. A course will not be offered if enrollment for it is insufficient.

PASS/FAIL

Courses at Scarsdale High School that are not pass/fail courses can be taken on a pass/fail basis only in extraordinary situations. The student, parent, dean, teacher, department chairperson, and administrator must all agree, in writing, to the implementation of the pass/fail option.

ACADEMIC INTEGRITY

If a student cheats, the person most harmed is the student. The integrity of the school is also compromised. The following statements reflect the seriousness with which we at Scarsdale High School view cheating.

Cheating includes, but is not limited to:

- representing someone else’s work as one’s own, including test answers, papers, creative work, homework, and labs
- using unauthorized auditory, visual, or written assistance on a quiz, test or other assignment
- knowingly providing others with the opportunity to cheat in one of the ways described above

All incidents of cheating are reported to the department head, the student’s dean, and the student’s parents. Consequences for a first incident are determined by the teacher and the department head. While any incident *may* be referred to the principal, all second incidents *must* be so referred and result in a meeting between the principal and the student and his or her parents or guardians. The principal determines appropriate consequences. If there are subsequent incidents, the student will be required to appear before the Academic Integrity Committee. The committee recommends consequences to the principal, who renders a final determination.

All teachers have the obligation to make clear to students that cheating is not tolerated, to proctor in-class evaluations, and to monitor assignments with vigilance and seriousness; however, the primary responsibility for honorable behavior resides with the student.

SPORTS

TEAMS AND TEAM MEMBERSHIP

Scarsdale High School fields a wide variety of teams during the fall, winter, and spring sports seasons. When a sport is not offered at all three levels (freshman, junior varsity, and varsity), qualified younger athletes play on the next-to-highest team. In some sports, all interested players are usually retained on the team, except when facilities and/or safety considerations require a reduced squad size. In most sports, however, team membership is selective. Students are expected to report in shape to the first practice, since evaluations for team membership begin on that day.

GOLD CARDS

Students must have an Interscholastic Sports Clearance Card, known as the Gold Card, to practice for or compete in interscholastic sports. A new Gold Card must be obtained for each new sports season. The requirements for the Gold Card include:

- an annual sports physical by a private physician or the school's doctor, which must be recorded on the school's form
- a signed parental response to a health questionnaire

All information related to sports clearance is on the nurse's website. The website lists start dates for each sports season and also indicates when the nurse's office will begin accepting Gold Card clearance packages.

FALL SPORTS

	Fr	JV	V
Cheerleading (G)		▪	▪
Cross Country (B&G)		▪	▪
Field Hockey (G)		▪	▪
Football (B)	▪	▪	▪
Soccer (B&G)		▪	▪
Swimming (G)			▪
Tennis (G)		▪	▪
Volleyball (B&G)		▪	▪

WINTER SPORTS

	Fr	JV	V
Basketball (B)	▪	▪	▪
Basketball (G)	▪	▪	▪
Bowling (B&G)			▪
Cheerleading (G)		▪	▪
Gymnastics (G)			▪
Ice Hockey (B)		▪	▪
Skiing (B&G)		▪	▪
Swimming (B)			▪
Track (B&G)		▪	▪
Wrestling (B)		▪	▪

▪ = sport offered

SPRING SPORTS

	Fr	JV	V
Baseball (B)	▪	▪	▪
Crew (B&G)		▪	▪
Golf (B&G)			▪
Lacrosse (B)	▪	▪	▪
Lacrosse (G)	▪	▪	▪
Softball (G)		▪	▪
Tennis (B)		▪	▪
Track (B&G)		▪	▪

▪ = sport offered

COUNSELING SERVICES

COUNSELING AT SCARSDALE HIGH SCHOOL

Counseling services at Scarsdale High School are designed to meet the educational, social, and emotional needs of students at each grade level. Incoming freshmen are assigned a dean (counselor) who works with them throughout their four years at Scarsdale High School. The deans are both academic advisors who guide students toward the fulfillment of their academic potential and trained counselors who help them develop socially and emotionally. Transitioning into and out of the high school, dealing with changing family structures, coping with academic pressures, managing a busy life, navigating the college process: These issues are common to all, but they play out in as many ways as there are students. Sometimes they are best addressed in group seminars; sometimes they require individualized attention and counseling. The deans provide both.

The formal counseling program begins in the spring before students enter the high school, when eighth-graders meet their new deans. In addition, the deans meet with the middle school house counselors for transition conferences and run an evening information session for parents.

The department offers an array of other programs and services, including the following:

Grade 9

- Freshman Seminar or Civic Education
- Report Card and Progress Review
- Course Planning Conference
- Schedule Review and Follow-up

Grade 10

- Schedule and Program Review
- Report Card and Progress Review
- Sophomore Seminar
- Course Planning Conference

Grade 11

- Schedule and Program Review
- College Information Program for Parents
- Junior Seminar
- Parent/Student College Conference
- Course Planning
- College Panel Presentations for Students and Parents

Grade 12

- Parent/Student College Planning Conference
- College Application/Admission Process
- Post-High School Planning
- Senior Day Program

The formal counseling sessions planned for each student are supplemented by frequent informal contacts about issues of individual concern. The deans are available for meetings at the request of a student, parent, or teacher and help their students resolve academic and personal issues.

Deans receive copies of all progress, academic, and discipline reports. Their ongoing communications with teachers, administrators, and parents provide them with a comprehensive understanding of each student in their case load and enable them to coordinate resources to help the student achieve and grow in personally meaningful ways.

For a more complete description of the counseling services available at Scarsdale High School, please visit the Counseling Center website via the Scarsdale High School web page: www.scarsdaleschools.k12.ny.us.

THE COLLEGE TESTING PROGRAM

native speakers of English must take this test. Detailed information on the TOEFL can be found online at www.ets.org/toefl.

Grade 11

- PSAT/NMSQT: (see description below)
- SAT
- ACT
- TOEFL (if appropriate; see description below)
- Advanced Placement examinations (optional)

Grade 12

- SAT
- ACT
- TOEFL (if appropriate; see description below)
- Advanced Placement examinations (optional)

PSAT/NMSQT: The PSAT/NMSQT (Preliminary SAT/National Merit Scholarship Qualifying Test) is a standardized test offered by the College Board. It is taken in the fall of 11th grade and is the basis for the National Merit Scholarship competition. Juniors who take the PSAT are automatically considered for Merit competition.

SAT: The SAT is a standardized college entrance test offered by the College Board. Many colleges require this test or an ACT (see below) as part of the admission process. Students are encouraged to seek the advice of their deans about whether and when to take the SAT. Information on the SAT can be found online at www.collegeboard.org.

ACT: The ACT is a standardized college entrance test offered by ACT. Many colleges require this test or an SAT (see above) as part of the admission process. Students are strongly encouraged to seek the advice of their deans about whether and when to take the ACT. Detailed information on the ACT can be found online at www.act.org.

Important note: Colleges that require a standardized college entrance test accept either the SAT or the ACT.

TOEFL: The TOEFL (Test of English as a Foreign Language) is a standardized test offered by the Educational Testing Service for students whose first language is not English. Colleges may require that students who are not

ART

The program in visual arts encourages students to express themselves creatively and discuss art critically by learning fundamentals, using their imaginations, taking risks, solving problems, and articulating their thinking processes. Student work is exhibited throughout the year in room 277, the Positive Space Gallery.

The Visual Arts Department is committed to meeting the needs of a diverse student population. Studio art foundation classes introduce various modes of expression (drawing, print-making, painting, etc.), provide relevant background into art history and visual culture, and offer trips to museums, sculpture parks and other venues that exhibit art. All students are required to take a foundation course before enrolling in an elective in a specific art subject. Advanced Topics courses are open to qualified seniors (and some juniors) who wish to engage in college-level study. Independent study is available to highly motivated, highly focused students who have completed the most advanced level of a given course. It cannot be used to fulfill the graduation requirement in art.

Those who expect to make art their college major and/or a career choice should consult with an art teacher early on to plan a sequential art program. Students who wish to create an art portfolio should enroll in *The Art Portfolio*, which is offered to juniors during the second semester.

Visual art courses that satisfy the arts/music graduation requirement are noted with an asterisk (*).

***STUDIO ART FOUNDATION**

Grades 9 through 12

4 periods per week, half year, ½ credit

In this one-semester course students use a range of materials and apply critical thinking skills to produce a variety of studio projects that grow out of their study of the elements and principles of art, visual culture, and art history.

ELECTIVES

Successful completion of the Studio Art Foundation course is prerequisite to enrolling in any elective. Not all elective courses run every year.

***ARCHITECTURE AND DESIGN I**

Grades 9 through 12

4 periods per week, half year, ½ credit

This introductory course in architecture and design teaches fundamental design skills, drawing, spatial visualization, model making, and creative design problem solving. Students will learn the historical development of architectural styles through presentations, projects, and field trips.

***CERAMICS I**

Grades 9 through 12

4 periods per week, half year, ½ credit

Ceramics I focuses on the hand building techniques: pinch, coil, and slab. It also provides an introduction to throwing vessels on the potter's wheel. Students learn about pottery styles from past cultures, traditional, and contemporary works. Surface decoration techniques are introduced, as are basic firing and finishing techniques.

***COMPUTER ANIMATION I**

Grades 9 through 12

4 periods per week, half year, ½ credit

Students work with both cartoon-based and realistic images to create 3-D characters and virtual environments that seem real. Become a visual storyteller by using Cinema 4D and Adobe Premier software applications to create a 3-D animated movie.

***DIGITAL PHOTOGRAPHY I**

Grades 9 through 12

4 periods per week, half year, ½ credit

In this introductory course, students examine the world through the lens of a 35mm, digital, SLR camera. Studies in the history of film and digital photography combine with instruction in camera basics (shutter speed, aperture, and ISO) to facilitate the composition of artful, personally meaningful photographs. Students develop skill and confidence as they investigate and apply Adobe Photoshop's tools and filters

for refining, transforming, and printing finished images.

***DIGITAL VIDEO I**

Grades 9 through 12

4 periods per week, half year, ½ credit

This course introduces students to the basics of cinematography, screenwriting, storyboarding, and editing. The study of film and video history inspires individual and collaborative efforts to translate ideas from paper to the screen. Students work with Adobe Premiere to capture, edit, and export movies to DVD.

***DRAWING AND PAINTING I**

Grades 9 through 12

4 periods per week, half year, ½ credit

This course helps students sharpen their skills of visual observation and creative expression while developing their drawing and painting abilities. Students keep a personal sketchbook and work in a variety of media, such as pencil, ink, charcoal, watercolor, and acrylic.

***FASHION I**

Grades 9 through 12

4 periods per week, half year, ½ credit

This course introduces students to the basics of fashion illustration and design, along with sewing by hand and machine, as they learn simple fabric construction techniques. While working on original fashion collections students will learn the history of fashion by studying virtual museum exhibitions as sources of inspiration. Hands-on projects with a contemporary DIY focus (“do it yourself”) will be completed, exploring textile design and the use of recycled garments and materials to create new unique pieces of clothing and accessories.

***GRAPHIC ARTS I**

Grades 9 through 12

4 periods per week, half year, ½ credit

Students learn the essentials of graphic arts by combining study of the elements and principles of design with their use of technology, such as Adobe's Illustrator, Photoshop, In-Design, Cinema 4D and After Effects. Core topics: illustration, typography, identity, package, publication, advertising design, and three-dimensional animation. Supporting material: a history of

graphic arts from the Art Nouveau era to the present day.

***SCULPTURE I**

Grades 9 through 12

4 periods per week, half year, ½ credit

This course explores a variety of additive, subtractive, traditional, and contemporary approaches to assembling, constructing, and carving three-dimensional forms. Students can expect to work with metal, stone, clay, plaster, glass, and non-traditional materials.

***HOT GLASS, METAL WORKS, AND JEWELRY I**

Grades 9 through 12

4 periods per week, half year, ½ credit

In this introduction to working with glass and metals, students learn a variety of techniques—glass torchworking, wire wrapping, soldering, bead stringing, finishing—and use them to create functional works, sculptures, and jewelry.

ADVANCED ELECTIVES

Prerequisite: completion of an elective course in the same area as the advanced elective

***ARCHITECTURE II**

Grades 10 through 12

4 periods per week, half year, ½ credit

In addition to preparing plans, elevations, sections, and perspective drawings, students practice advanced model-making techniques. Preparatory readings, research, and fieldwork expose students to architectural history and complex principles of design, which they apply to several extended studio projects.

***ADVANCED 2D IMAGE MAKING PRACTICES**

Grades 10 through 12

4 periods per week, half year, ½ credit

This advanced semester art course meets 4 times per week for ½ credit. Students will explore a wide range of new (Adobe Creative Suite software) and traditional (printmaking, drawing, painting and photography) image-making tools to communicate ideas and expand aesthetic possibilities. Through experimental

strategies and techniques students will discover new boundaries in artistic expression and address the impact of art and creative technologies within their artwork and documented process in their sketchbooks. This course is designed to encourage exploration, questioning, risk taking and to reflect a student's originality and creativity.

***ADVANCED CERAMICS AND SCULPTURE**
Grades 10 through 12

4 periods per week, half year, ½ credit

This course focuses on advanced sculptural and/or functional techniques. A natural extension of Ceramics I or Sculpture I, artists will choose the three-dimensional medium and technique appropriate to their ideas, focusing on clay or using a variety of mediums. Through further study of three-dimensional design as it applies to traditional and contemporary sculptural techniques, students work on problems that challenge their creativity and broaden their awareness of sculptural and/or functional possibilities.

Advanced ceramic artists utilize handbuilding and wheel-throwing techniques, exploring new glazing processes and techniques while advanced sculpture focused students learn and apply techniques for working with mixed media, clay, glass, and metal. Students are challenged to create a personal body of work, problem solve creatively, and to think and work independently.

***COMPUTER ANIMATION II**
Grades 10 through 12

4 periods per week, half year, ½ credit

Participants will create realistic models, work with typography, and use camera, lights and animation to explore ways of applying three-dimensional modeling and animation techniques to the creation of motion graphics and visual effects. Computer Animation II investigates the creative capacity of digital technology to improve communication, develop creative self-expression, and explore perception and interaction among people, objects, and ideas.

***DIGITAL PHOTOGRAPHY II**

Grades 10 through 12

4 periods per week, half year, ½ credit

In this second-level elective, students expand their knowledge of both the camera and related software programs, such as Adobe Photoshop and Corel Painter. Participants may focus on specific photographic genres (portrait, still life, photojournalism, fashion, landscape/architecture) as they develop personally relevant portfolios that demonstrate technical proficiency. Participants study the history of film and digital photography, contemporary fine art, and the work of commercial photographers.

***ADVANCED STUDIO IN**
PHOTOGRAPHY/DIGITAL VIDEO

Grades 10 through 12

4 periods per week, half year, ½ credit

This course is for students who have completed Digital Photography II or Digital Video I and would like to continue to explore the media. Students of digital photography study specific genres in greater depth while continuing to develop technical skills and an increasingly critical eye for photography. Students of digital video study the work of directors, cinematographers, editors, and screenwriters, with the goal of transforming their own creative visions into narrative films, experimental video art, and commercial video projects. Students create portfolios and participate in exhibitions and film festivals.

***DRAWING AND PAINTING II**

Grades 10 through 12

4 periods per week, half year, ½ credit

This course facilitates a fuller investigation into drawing and painting methods, processes, and techniques, with attention to the development of personal vision. Although emphasis is placed on drawing and painting observation, stylized and non-objective work is also included.

***FASHION II**

Grades 10 through 12

4 periods per week, half year, ½ credit

In this second-level elective course fashion enthusiasts will learn advanced drawing and-sewing techniques such as draping on a mannequin and sewing a simple garment. Students will also learn how to work from a pattern and

how to design one, while exploring the properties of different fabrics and textile pattern techniques. The Spring MET Fashion Gala and exhibition will be a focus to learn about new fashion trends and the artistry of the fashion designers behind them--inspiration for students' own original fashion collections.

Prerequisite: Fashion I

***SCULPTURE II**

Grades 10 through 12

4 periods per week, half year, ½ credit

This course provides further study of three-dimensional design as it applies to traditional and contemporary sculptural techniques. Students work on problems that challenge their creativity and broaden their awareness of sculptural possibilities. Students learn and apply advanced techniques for working with mixed media, clay, glass, and metal.

***HOT GLASS, METALS, & JEWELRY II**

Grades 10 through 12

4 periods per week, half year, ½ credit

This class is a continuation of Hot Glass, Metal, and Jewelry 1. Students learn more advance techniques, think more in depth, and speak explicitly about personal processes and creations through class critics. Advanced techniques will include stained glass, kilnformed bas-relief, glass sculptures, metal and glass jewelry making, metal forging and chasing, image fusing and etching.

THE ART PORTFOLIO

Grade 11

4 periods per week, spring semester, ½ credit

This is a course for students who are interested in creating an art portfolio that demonstrates their observational skills, creativity, originality, mastery of techniques, range, breadth, personal vision, and ability to develop and explore ideas. Students will investigate a variety of media and image-making tools to communicate ideas and expand aesthetic possibilities. Through experimental strategies and techniques, students will discover new boundaries in artistic expression and address the impact of art. This course is designed to encourage exploration, questioning, risk taking and to reflect a student's originality and creativity within an

entire body of work. Students will learn how to photograph and edit their work as well as design and present their art portfolio.

Prerequisite: successful completion of three or more Scarsdale High School art courses

ADVANCED TOPICS COURSES

ADVANCED TOPICS ART HISTORY 715

Grades 11 and 12

4 periods per week, full year, 1 credit

This college-level course provides a solid foundation in painting, sculpture, and architecture from ancient through modern times, largely through the study of art objects in New York City museum collections. The course exposes students to the discipline through four field trips, two museum projects, textbook readings, current exhibition and gallery reviews, and research in museum databases. Participants will learn and use the most current visual and critical thinking strategies to shape and present their ideas, and to explore their own creative interpretations and analyses of the art they study.

ADVANCED TOPICS STUDIO ART COURSES

Advanced Topics Studio Art courses are for committed students whose passion for art and seriousness of purpose allow them to commit the significant time and energy required of participants in these college-level offerings. The recommended preparation for Advanced Topics courses includes a portfolio review in January of the junior year and previous experiences in a variety of art classes. Students intending to enroll in Advanced Topics courses as seniors should confer with their teacher during the sophomore or junior year to plan an appropriate course of study.

***ADVANCED TOPICS IN 2-D STUDIO ART**

Grades 11 and 12

6 periods per week, full year, 1 credit

This course provides opportunities to engage in practical exploration, critical art investigation, and artistic production. Students explore traditional and non-traditional 2-D media and techniques in drawing, painting, printmaking, and mixed media. In-depth study of artists, artworks, art movements, and visual culture informs par-

ticipants' efforts to create quality studio pieces that articulate their personal artistic visions.
Prerequisite: portfolio review by the instructor.
Recommended: prior enrollment in a minimum of two courses focusing on two-dimensional studio art

***ADVANCED TOPICS IN 3-D STUDIO ART Grades 11 and 12**

6 periods per week, full year, 1 credit

This course provides highly motivated students with opportunities to use a variety of 3-D materials, such as ceramics, glass, metal, and mixed media. Instruction and assignments provide students with opportunities to create work based on personal themes and styles, with high attention to fine craftsmanship.

Prerequisite: portfolio review by an instructor.
Prior enrollment in a minimum of two of the following 3-D courses is recommended: Ceramics I, Ceramics II, Sculpture I, Sculpture II

ELECTIVES IN DESIGN, ENGINEERING & TECHNOLOGY

COMPUTER SCIENCE COURSES

COMPUTER SCIENCE 912

Grades 9 through 12

4 periods per week, half year, ½ credit

This course provides students with a knowledge base and basic programming skills that are both applicable in the classroom and marketable. After becoming familiar with the functionality of spreadsheets and learning how to construct and apply the formulas that drive them, students create their own macros/programs to address a variety of tasks and a range of programming challenges.

COMPUTER SCIENCE 913

Grades 9 through 12

4 periods per week, 1 credit

Computer Science 913 provides an introduction to a wide range of topics in computer science, including database development and SQL, computer-relevant number systems and information encoding, computing hardware and

digital logic and circuit design, physical computing and web development. Core computing concepts, such as problem solving, computational thinking, and algorithm development, are stressed in each unit of the course.

CONTEMPORARY TOPICS IN COMPUTER SCIENCE 922

Grades 9 through 12

4 periods per week, half year, ½ credit

This semester-long survey course will explore various contemporary topics in computer science such as cybersecurity, encryption, machine learning, computing ethics, data privacy, and artificial intelligence. The emphasis of the course may vary depending on real world issues and applications.

Prerequisite: Computer Science 912 or 913

COMPUTER SCIENCE 925

Grades 10 through 12

4 periods per week, 1 credit

This Advanced Topics offering is comparable to an introductory college-level computer science course. Topics include program design, principles of object-oriented programming, programming constructs, testing and debugging programs, analysis of algorithms, standard data structures, standard algorithms, recursion, and responsible use of computer systems. Most work is done using the Java programming language. Much of this course's challenging, project-based work takes place outside of class.

Prerequisites: Computer Science 912 or Computer Science 913 or a math class at least as challenging as Math 433. Participation in Computer Science 925 requires the approval of the Math department. Those not meeting the course prerequisites may be able to take the course upon successful completion of a performance based assessment.

DESIGN AND ENGINEERING COURSES

The course sequence will provide students with hands-on learning experiences through open-ended projects in which they will design, prototype, and test solutions to authentic, human-centered problems. Course projects will

gradually increase in scale and complexity as students develop their knowledge and skills.

INTRODUCTION TO HUMAN CENTERED DESIGN 912

Grades 10 through 12

2 periods per week, half year, ¼ credit

In this course, students learn the basics of how to create innovative products and services for others while being introduced to the basics of the design process. Students learn fabrication as a necessary tool to communicate their ideas and explore two different types: 3D modeling and cardboard prototyping. Students apply this knowledge to a capstone project.

INTRODUCTION TO ENGINEERING 912

Grades 10 through 12

2 periods per week, half year, ¼ credit

In this course, students are introduced to basic principles in mechanical and electrical engineering, laying a foundation for subsequent study in engineering, applied physics and design. Students are introduced to the basic theory of mechanics and electricity and apply this knowledge in the form of hands-on projects. The course covers the engineering design process, mechanics, principles of electricity, software, microcontrollers and culminates in a capstone project.

PRODUCT DESIGN FOR MODERN PRODUCTION 922

Grades 10 through 12

4 periods per week, half year, ½ credit

In this course, students learn how to design meaningful products by translating ideas into products using 3D Modeling and digital fabrication tools. Participants learn basic to advanced 3D modeling tools and techniques creating physical prototypes through 3D printing, laser cutting, and CNC machining. Students apply their skills of 3D modeling to design and create value for others in a capstone project.

Prerequisite: Introduction to Engineering or Human Centered Design.

MOBILE APP DESIGN & DEVELOPMENT 922

Grades 10 through 12

4 periods per week, half year, ½ credit

This course provides an introduction to mobile app development and design thinking.

Students will learn the basics of app development and then use design thinking to identify a real need that an app could solve. Following the design thinking process, students will prototype, test and reiterate their designs, culminating in the wire-framing of their app.

Prerequisite: Intro to Engineering or Human Centered Design. or any Computer Science course.

PRINCIPLES OF ELECTRICAL ENGINEERING 922

Grades 10 through 12

4 periods per week, half year, ½ credit

This course is designed to introduce students to basic principles in electronics and electrical engineering, and lay a foundation for subsequent study in engineering, applied physics and design. The main objective of the course is to introduce students to programming with a specific emphasis on using coding to interface/interact with physical devices, sensors and hardware. Students will be introduced to the basic theory of electricity and circuits and apply this knowledge in the form of hands-on projects through the use of the Arduino platform.

Prerequisite: Introduction to Engineering or Human Centered Design.

ROBOTICS 922

Grades 10 through 12

4 periods per week, half year, ½ credit

In this course, students acquire a foundational understanding of how to integrate the physical, mechanical, and electrical worlds to create robotic systems that improve human life. They build robots, apply mechanical concepts by using sensors, motors, and mechanisms, and learn advanced programming skills to create innovative robotic systems for others.

Prerequisite: Introduction to Engineering or Human Centered Design.

DESIGN/BUILD 922

Grades 10 through 12

4 periods per week, half year, ½ credit

In Design/Build, students utilize the design process to create solutions for others while learning basic woodworking skills using both hand and power tools. A focus is placed on teamwork, self-reflection and communication of their process and

results through presentations and informal pitches. Students apply their skills to a capstone project.

Prerequisite: Introduction to Engineering or Human Centered Design.

AT ENTREPRENEURSHIP

Grades 11 and 12

4 periods per week, 1 credit

AT Entrepreneurship is the capstone experience for the STEAM sequence. By practicing human-centered design, participants in this project-based course develop the skills, creative confidence, and teamwork abilities necessary to successfully research, conceive, prototype, test, refine, and ultimately present in a public forum a product that appropriately meets the needs of those for whom it has been designed. Students will compose a design notebook (both physical and digital) of concept sketches, ideas pertaining to their project, and reflections on their readings about the human-centered design theoretical framework.

Prerequisites: completion of introductory and second-level STEAM courses as well as permission of the program coordinator



FRESHMAN ENGLISH

ENGLISH 211

Grade 9

4 periods per week, 1 credit

The cornerstones of the ninth-grade program in English are close reading, expressive and expository writing, performance, and interdisciplinary connections. Class size for this course is limited in order to facilitate the especially close relationship between students and teacher that facilitates the development of these skills. Course themes include the hero's journey, the quest for self-knowledge, and the confrontation with mortality. These themes invite students to consider their own journeys through life as they begin the adventure of high school.

ENGLISH 212

Grade 9

4 periods per week, 1 credit

The cornerstones of the ninth-grade program in English are close reading, expressive and expository writing, performance, and interdisciplinary connections. This course develops students' understanding of such literary devices as irony, foreshadowing, symbol, and figurative language; clarifies the difference between the concrete and the abstract, the stated and the inferential; and provides opportunities for self-expression in which students sharpen their ability to compare, analogize, link cause and effect, and develop ideas through the use of specific examples. Ninth-grade English and social studies classes are scheduled such that those who teach them share students, design and teach interdisciplinary units, and work with the deans to build strong learning communities that facilitate the transition from middle school to high school. Course themes include the hero's journey, the quest for self-knowledge, and the confrontation with mortality. These themes invite students to consider their own journeys through life as they begin the adventure of high school.

Note: Some sections of English 212 are part of the Civic Education program. For a description of that program, see page 43.

SOPHOMORE ENGLISH

ENGLISH 221

Grade 10

4 periods per week, 1 credit

The literature for this course, like the discussions and writings it inspires, investigates the individual's journey from home into worlds where conflicts play out in the debate over the nature of law and the struggle to achieve justice. Students address course themes by contributing personal efforts to group projects (debates, mock trials, and presentations) in which they express themselves in expository, declamatory, descriptive, and creative modes. Class size for this course is limited in order to facilitate the especially close working relationship between students and teacher that allows for ongoing work on reading, writing, and speaking skills.

ENGLISH 222

Grade 10

4 periods per week, 1 credit

The literature for this course builds on the freshman-year study of the hero's journey by exploring what happens when the hero has to operate as part of a group. The course facilitates an examination of factors that shape the individual's perspective on the world, and explores what happens when the values of the individual clash with those of the group. In studying both fiction and non-fiction texts, students continue to develop their close-reading skills and apply them in class discussions and writing assignments. Students receive extensive practice in both creative and argumentative writing, learn strategies for structuring their work in sophisticated ways, and use digital media like Google Slides to construct and present their arguments.

JUNIOR ENGLISH

ENGLISH 231

Grade 11

4 periods per week, 1 credit

This course continues the skills development work of English 211 and English 221 and helps students prepare for the English Regents exam they take at the end of the year. Short stories, plays, short novels, radio and television broadcasts, films, and blogs stimulate class discussions and provide material for debates and presentations. Students write informal reflections on current events topics as well as more formal and developed essays on literary, cultural, and human-interest topics. Class size is limited in order to facilitate an especially close working relationship between students and teacher.

ENGLISH 232

Grade 11

4 periods per week, 1 credit

What is "home"? A source of security? The place where, "when you have to go there, they have to take you in"? Is it a battlefield on which generation wounds generation? A place that one is lucky to survive? English 232 explores these questions through the study of literature, current events, newspaper articles, and films. Students sharpen their writing skills in prepara-

tion for the research paper they write during spring semester and the New York State Regents examination in English that they take at the end of the year.

ENGLISH 233 (The American Experience)

Grade 11

4 periods per week, 1 credit

This course uses American fiction, poetry, essays, music, art, and films to explore questions about our unique national identity. It helps students become critical readers, close listeners, thoughtful viewers, and effective communicators. During the spring semester, students write their first literary research paper, developing a nuanced and complex argument about a work of American literature. At the end of the year, they take the New York State Regents examination.

ENGLISH 233 (American Studies)

Grade 11

4 periods per week, 1 credit

American Studies is designed for juniors interested in taking an interdisciplinary English and social studies course in which historical contexts inform the study of literature and literature provides insight into American history. Although two separate classes, English and social studies are scheduled so as to enable those who teach them to share students, design and teach interdisciplinary units, and coordinate workloads and due dates. At the end of the year students take the New York State Regents examination.

Note: Students who select this version of English 233 must also select the American Studies version of United States History and Government 632.

ENGLISH 234

Grade 11

4 periods per week, 1 credit

Passionate and accomplished readers and writers will thrive in this honors-level course that uses works by American writers, musicians, artists, and filmmakers to explore questions about our national identity. It helps students become critical readers, close listeners, thoughtful viewers, and skillful communicators. Many aspects of this course (especially its fre-

quent and challenging writing assignments, an in-depth research paper project among them) prepare students to enter confidently the Advanced Topics English course in senior year. *Prerequisites: the recommendation of the teacher of English 222 and successful performance on a qualifying examination*

SENIOR ENGLISH

ENGLISH 242

Grade 12

4 periods per week, 1 credit

Like English 232, its precursor, this course offers students opportunities to write frequently and read both classic and modern literature, all at a rate appropriate to their abilities. The multicultural curriculum explores these questions: What nourishes or sustains us as we journey through life? If disaster strikes, how does one overcome it? What are the sources of courage and inspiration? How can one change in the face of profound challenges and daunting odds? What does it mean to be a survivor?

ENGLISH 243

Grade 12

4 periods per week, 1 credit

Students who take English 243 may select from among three electives that use canonical literature and contemporary media to explore the "big ideas" of Western culture. The courses share a core curriculum, yet each has its own focus and unique way of blending analysis and creativity. Details follow.

Words and Images: Images and videos dominate today's media landscape, shaping out opinions in subtle ways. If we are not to confuse ourselves with someone else's version of who we are, we must learn to read critically and actively—texts and images alike.

Creative Writing: The impulse to share stories is strong, but the opportunity to do so in an academic setting is rare; the storyteller in each of us often takes a back seat to the analyst, the critic, the problem solver. In this course, however, analysis becomes a companion to creative exploration and expression, and the traditional research paper is a stepping stone for a larger, more personal, final writing project.

Dilemmas: Life bombards us with dilemmas.

This course invites students to interrogate possible approaches to such dilemmas. Some of the situations studied are real-life situations that shock us; some are fictions that exhilarate us. How do we learn to see accurately and make sound, ethical decisions? How do we balance "I want" with "I should"?

ENGLISH 245, Advanced Topics English

Grade 12

4 periods per week, 1 credit

Advanced Topics English is a college-level course about language—an investigation into the ways it invites and confounds interpretation. The course revels in irony, feasts on complexity, and celebrates ambiguity. Topics vary somewhat from year to year, depending on teachers' and students' interests, as do the readings, all of which are philosophically and formally challenging classics or contemporary masterpieces of prose, drama, and poetry. Students hone their close-reading skills, explore and emulate the finer points of writing, and examine literature through a variety of critical lenses.

Prerequisites: English 234 or both the recommendation of the teacher of English 233 and successful performance on a qualifying examination

ELECTIVE

PUBLIC SPEAKING

Grades 10-12

4 periods per week, 1 semester, ½ credit.

This course introduces a student to different types of public speaking useful in their academic, professional and personal lives. Students will encounter units on impromptu speaking without notes, interviewing, speaking for interpretative performance, presentations using slides, and news broadcast prepared speaking. There will be a heavy emphasis on students engaging in the giving and receiving of constructive peer feedback, practicing and improving their speaking with their peers as well as on rehearsing their work and making changes based on the feedback received. By regularly presenting in front of their peers through graded assessments, students will learn the skills and strate-

gies for successful communication in general as well as skills specific to each modality.

HEALTH EDUCATION

HEALTH EDUCATION

Grade 10

4 periods per week, half year, $\frac{1}{2}$ credit

Health Education teaches students how to define, practice, and achieve physical and mental well-being. Participants explore diet and nutrition; mental and emotional health; human sexuality (including sexual health, birth control, and sexually transmitted infections); relationship management; stress management; substance abuse; current and evolving issues; and, most important, educated decision making.

Materials and lessons facilitate an understanding of social, emotional, and cognitive developmental stages and skills. The course provides participants with opportunities to research the issues, discuss their conclusions with teacher and peers, clarify their values, and evaluate their behaviors and habits. The course culminates in a health fair at which participants present research findings, learn from presentations by others, and demonstrate the extent to which they have mastered course topics and themes.

The goal of Health Education is to help students become lifelong learners who can apply what they have learned to make informed, educated decisions that facilitate personal, family, and community health and safety. The course is a New York State Education Department graduation requirement.

NUTRITION

Grades 11 and 12

4 periods per week, half year, $\frac{1}{2}$ credit

This elective course is for students who are hungry for accurate, current, and relevant information about food and nutrition. There is so much conflicting information available on food, diet, and exercising that it takes discipline and effort to make consistently good choices every day. This course will lead the way through the confusing, often contradictory and sometimes

false information that bombards us in the media and on the internet. Students will analyze personal diets and case studies for practical experience. Students will critique social media messages about nutrition and exercise. Students and the instructor will work together to fill their needs regarding food, nutrition, and enhancing overall performance. This course is for any student interested in a healthy lifestyle. At the end of this course students will be able to create their own nutritional plan and apply what they learned to their life now and in the future.

MATHEMATICS

The Department of Mathematics offers a program that integrates the study of traditional branches of math (algebra, geometry, and trigonometry) with the study of functions, probability, statistics, calculus, logic, and mathematical systems. All courses and levels of study help students develop conceptual understanding, build strong problem-solving skills, and learn to apply critical and creative thinking skills to real-world challenges and problems.

MATHEMATICS 410

Grade 9

4 periods per week, 1 credit

This course is designed for students who have experienced difficulties in mathematics over an extended period of time. Through special instruction in small groups, students work on basic principles of arithmetic and are introduced to topics in algebra, geometry, and statistics.

MATHEMATICS 411

Grade 9

4 periods per week, 1 credit

This course is the first in a two-year study of integrated algebra that prepares students for the New York State Regents Algebra 1 (Common Core) exam. Topics include introductory concepts in algebra, the writing and solving of linear and quadratic equations, and statistics.

MATHEMATICS 412

Grade 9

4 periods per week, 1 credit

This algebra course emphasizes foundational concepts and problem-solving strategies that are common to all branches of mathematics. Topics include the real number system, linear equations and inequalities, quadratic equations, statistics, and an in-depth study of functions. At the end of the course students take the New York State Regents Algebra 1 (Common Core) exam.

MATHEMATICS 424

Grade 9

4 periods per week, 1 credit

This honors-level course emphasizes the structure and nature of proof in the study of symbolic logic, algebra, mathematical systems, and in Euclidean, analytic, and solid geometry.

Prerequisite: recommendation of middle school teacher

MATHEMATICS 421

Grade 10

4 periods per week, 1 credit

Topics in Mathematics 421 include all operations with polynomial expressions, number systems, first and second degree equations, systems of equations, graphing, statistics, inequalities, and work with functions. At the end of the course, students take the New York State Regents Algebra 1 (Common Core) exam.

MATHEMATICS 423

Grades 9 and 10

4 periods per week, 1 credit

Topics in this advanced course include rational expressions, probability, logic, formal plane geometric proofs, and Euclidean, analytic, solid, and circle geometry.

Prerequisite: teacher recommendation

MATHEMATICS 422

Grades 9 and 10

5 periods per week, 1 credit

Topics in this course include rational expressions, probability, symbolic logic, formal plane geometric proofs, and Euclidean, analytic, solid, and circle geometry. The course meets five times per week to allow sufficient time to cover these topics in appropriate depth.

Prerequisite: Math 412 and teacher recommendation

MATHEMATICS 434

Grade 10

4 periods per week, 1 credit

This rigorous, honors-level course builds on the ideas introduced in Math 424 and includes a study of functions, exponential and logarithmic functions, trigonometric functions, transformations, the complex number system, probability, and statistics.

Prerequisites: Math 424 and teacher recommendation

MATHEMATICS 431

Grade 11

4 periods per week, 1 credit

Topics in this college-preparatory course include inductive and deductive reasoning, types of sequences, right triangle trigonometry, analytic and Euclidean geometry, functions and their graphs, conic sections, and use of a graphing calculator. Students also review topics in preparation for the mathematics component of standardized exams.

MATHEMATICS 432

Grades 10 and 11

4 periods per week, 1 credit

In this college-preparatory course in intermediate algebra and introductory trigonometry, the concept of function provides a unifying theme for the study of polynomial and rational expressions, exponents, complex numbers, logarithms, and fundamentals of trigonometry.

Prerequisite: Math 422 or 423

MATHEMATICS 433

Grades 10 and 11

4 periods per week, 1 credit

In this accelerated course in intermediate algebra and trigonometry, the concept of function provides a unifying theme for the study of polynomial and rational expressions, exponents, complex numbers, and logarithms. Students study trigonometry in depth and continue the work they started on the probability strand. The TI-89 graphing calculator is introduced in this course.

Prerequisites: teacher recommendation and Math 423 with a grade of B or higher or Math

422 with a grade of A- or higher

MATHEMATICS 444 HH (PRECALCULUS)

Grade 11

4 periods per week, 1 credit

This high honors course offers an in-depth study of the properties of functions, sequences and series, mathematical induction, limits, analytic geometry, vectors, matrices, polar and parametric coordinates and the conic sections. A graphing calculator is used in this course.

Prerequisites: Math 434 and teacher recommendation

MATHEMATICS 441

Grade 12

4 periods per week, 1 credit

This course further develops and strengthens students' understanding of mathematical concepts they must have to continue their study of mathematics in college. New topics include probability, voting apportionment, statistics, matrices, consumer and financial management, matrices, and graph theory. A graphing calculator is used in this course.

Prerequisite: Math 431

MATHEMATICS 443 (PRECALCULUS)

Grades 11 and 12

4 periods per week, 1 credit

This course covers many of the fundamental concepts necessary for one to succeed in college mathematics courses, including elementary functions, theory of equations, modeling of real-world situations, limits, continuity, trigonometry, sequence and series. A graphing calculator is used in this course.

Prerequisite: a grade of C or better in Math 433

MATHEMATICS 444 (PRECALCULUS)

Grades 11 and 12

4 periods per week, 1 credit

This honors course in advanced mathematics provides a strong foundation for future study in mathematics or science and offers a rigorous treatment of elementary functions, theory of equations, modeling of real-world situations, analytic geometry, limits, continuity, sequences and series, and trigonometry. A graphing calculator is used in this course.

Prerequisite: teacher recommendation and a grade of B+ or better in Math 433

MATHEMATICS 442 (TRIGONOMETRY and PRECALCULUS)

Grades 11 and 12

4 periods per week, 1 credit

This course begins with an in-depth study of functions, followed by trigonometry, including right triangle trigonometry, trigonometric graphs, identities, and equations. A brief unit in probability and statistics, which explores standard deviation and the normal curve, is followed by investigations into topics in precalculus, including functions, transformations, polynomials, sequence, and series.

Prerequisite: successful completion of Math 432

MATHEMATICS 453 (PRECALCULUS/CALCULUS)

Grade 12

4 periods per week, 1 credit

This course continues to build a foundation in precalculus and examines the basic concepts and applications of calculus. Topics include functions, limits, modeling of real-world situations, derivatives and their applications, and an introduction to anti-differentiation. The major concepts in this course are applied only to polynomial functions and some rational and square root functions.

Prerequisites: teacher recommendation and successful completion of Math 442

MATHEMATICS 454 (CALCULUS)

Grade 12

4 periods per week, 1 credit

This honors course introduces students to concepts and applications of calculus. Students explore topics such as limits, differential calculus, integral calculus and applications, and modeling of real-world situations. The graphing calculator is used in this course.

Prerequisites: teacher recommendation and successful completion of Math 443 or Math 444PC

HONORS INTERDISCIPLINARY MATH 454

Grade 12

4 periods per week, 1 credit

This honors-level course is for motivated students who want to apply mathematics (probability, statistics, sequences/series, etc.) in a range of disciplines. Topics include finance, voting

apportionment, and cryptography. Tests, projects, and presentations serve as assessments.
Prerequisites: Math 444 or Math 443 and teacher recommendation

DIGITAL LOGIC DESIGN

4 periods per week, 1 credit

This elective course is intended for students who wish to see the application of mathematical logic to the design of digital circuits. Topics covered in the course include number systems, boolean algebra, logic gates, and combination-al and sequential logic. This lab-based course will bridge the gap between theoretical and applied mathematics, and includes a capstone project at the culmination of the course.

Prerequisites: Math 422 or higher

ADVANCED TOPICS COURSES

MATHEMATICS 455 (AT STATISTICS)

Grades 11 and 12

4 periods per week, 1 credit

This Advanced Topics course in statistics introduces students to key concepts and tools for collecting, analyzing, and drawing conclusions from data. Students study mathematical principles and communicate their interpretation of data in writing. This course is equivalent to an introductory, one-semester, college-level statistics course.

Prerequisites or corequisites: teacher recommendation and Math 442, Math 443, Math 444 HH or Math 444 (Precalculus)

MATHEMATICS 455 (AB CALCULUS)

Grade 12

5 periods per week, 1 credit

This Advanced Topics course closely parallels standard college freshman calculus and analytic geometry courses. Both formal and intuitive approaches are used to develop participants' understanding of the concepts, methods, and applications of differential and integral calculus.

Prerequisites: teacher recommendation and Math 444 HH or Math 444 (Precalculus)

MATHEMATICS 455 (BC CALCULUS)

Grade 12

6 periods per week, 1 credit

This Advanced Topics course provides an in-depth study of extremely challenging concepts

and methods of calculus. Strong emphasis is placed on formal proof.

Prerequisites: teacher recommendation and Math 444 HH or Math 444 (Precalculus)

MATHEMATICS 455 (AT LINEAR ALGEBRA)

Grade 12

4 periods per week, 1 credit

The topics covered in this course include the elements of a college-level Introduction to Linear Algebra course: matrix algebra, determinants, linear transformation, elementary vector spaces, characteristic equations and eigenvalues. There will be an emphasis on techniques and applications, as we examine vectors and spaces, matrix transformations, solving equations and finding eigenvalues. Students will also use computing technologies to create and explore applications of linear algebra, such as optimization and linear regression. This course is central to many areas of math, science, computer science, computer animation and engineering. Unlike a calculus class, this course is more concrete, with specific tools and algorithms. To be successful, students will need a strong algebra background and a mathematical maturity.

Prerequisites: teacher recommendation and successful completion of Math 442

MATHEMATICS 465

Grade 12

1 credit

This independent online course is designed for exceptional students who have successfully completed BC Calculus, the most challenging mathematics course taught at the high school. Students can study linear algebra or multivariable calculus through an institution approved by the Math Department. Please see the Math chairperson for more information.

MUSIC AND PERFORMING ARTS

The Performing Arts Department (Music/Drama) offers every student, whether performer or simply enthusiast, opportunities to become more knowledgeable in the arts, improve vocal and instrumental skills, learn the literature, and develop an appreciation for music and theater. The intelligent use of leisure time towards creative ends gives breadth to a student's program of studies and provides rewarding experiences throughout life.

The department recommends that all non-performance students consider taking *Listening To Music*, which meets the arts requirement established by the New York State Department of Education. Performing arts courses that lead to the fulfillment of the arts/music graduation requirement are noted with an asterisk (*).

Most performance groups have one mandatory rehearsal per week that begins at 7:30 a.m. These courses are marked with the following symbol: ★.

NOTE: Unless otherwise specified, courses are open to all students.

NYSSMA/WCSMA

Scarsdale High School participates in music festivals offered by New York State and Westchester County. Students audition at one of two levels, either grades seven through nine or grades ten through twelve. The appropriate music is selected by level from the current NYSSMA Manual. All students auditioning for a festival performance group must be members of the corresponding performance organization at Scarsdale High School at the time of both audition and performance. Additionally, the NYSSMA eligibility requirement mandates that participating students be members in good standing of their school performing organization, with a minimum class attendance of 50% for the year.

APPLIED MUSIC

½ credit

Credit is granted for Applied Music in accordance with regulations established by the New

York State Department of Education and Scarsdale High School. Students wishing to enroll in this program must register with their dean at the time course selections are made. Participants must also file registration forms with the chairperson of Performing Arts in the fall of each school year and adhere to the requirements of the Applied Music program. The private music teacher is responsible for submitting timely grades (either pass or fail) to the chairperson of the Performing Arts Department. The student is responsible for making all arrangements with the private teacher. Credit for applied music is granted only if the student is enrolled in one of the school's performance organizations. Those who play non-orchestral instruments must be registered for a course offered by the Department of Performing Arts.

*★SYMPHONIC BAND

4 periods per week, ½ credit per semester

Any student who is studying an instrument may enroll in symphonic band. NYSSMA level-four music is used for this group, which performs at least twice a year in programs that also feature the wind ensemble. Once a week this class meets from 7:30 to 8:05 a.m.

*★HONORS WIND ENSEMBLE HONORS

4 periods per week, ½ credit per semester

Acceptance into this course is contingent on a successful, mandatory, springtime audition using prescribed solo material comparable to a NYSSMA level five or six, as well as additional criteria that are available from the Director of Bands. NYSSMA scores may be used for acceptance into this course. The ensemble performs at least two concerts a year for the school and community. Music ranges from standard concert literature to transcriptions to show tunes. Once a week this class meets from 7:30 to 8:05 a.m.

*★PERCUSSION ENSEMBLE

2 periods per week, ½ credit

This alternative to the concert band and wind ensemble, allows players to improve their skills on a wide range of percussion instruments, including bells, xylophone, marimba, and timpani. It utilizes literature that cannot be per-

formed in large ensembles. Students are not required to audition for this group.

VARSITY BAND

¼ credit

All members of the wind ensemble and concert band should make a musical contribution to school and community by electing varsity band. This band plays more often and for larger audiences than any other performing group, so the number of participants is important. Performances include all home football games and the Memorial Day parade. Members are eligible for varsity letter awards. Although the course does not compete for school time, students should sign up at the same time that they select their other courses, so that the director can design the band's roster.

***♦MIXED CHORUS**

4 periods per week, ½ credit per semester

Mixed chorus is intended for all students who wish to sing but have not had previous choral experience in the high school. Members of the mixed chorus learn basic elements of singing technique, ear training, and the reading of choral parts. They perform a variety of choral works in school concerts. Once a week this class meets from 7:30 to 8:05 a.m.

***♦CONCERT CHOIR**

4 periods per week, ½ credit per semester

Concert choir is open to students with high school choral experience and the consent of the instructor. The members of the concert choir continue their development of singing technique, ear training, and the reading of choral parts. They perform in school concerts and sing a wide range of music. Once a week this class meets from 7:30 to 8:05 a.m.

***♦CHAMBER CHOIR**

2 periods per week, full year, ½ credit, or
1 period per week, full year, ¼ credit

The Chamber Choir is open to qualified students who are also enrolled in Concert Choir, Mixed Choir, or Vocal Ensemble. This course is for advanced singers who are interested in exploring challenging choral repertoire, usually performed a capella. Performances occur in conjunction with the regular school concerts, and some take place at community venues. A

balanced voicing is determined and maintained by the instructor.

***♦SYMPHONIC ORCHESTRA**

4 periods per week, ½ credit per semester

The orchestra, open to qualified students, performs symphonic works from a wide range of periods and styles and also participates in public concerts. A balanced instrumentation is required. Brass, wind, and percussion players are admitted by consent of the instructor. Once a week this class meets from 7:30 to 8:05 a.m.

***♦STRING ORCHESTRA**

4 periods per week, ½ credit per semester

The string orchestra, designed primarily for students entering grade nine, prepares them for the Symphonic Orchestra by strengthening their technique, improving their ensemble work, and developing their sight-reading skills. This group performs orchestral works from a range of periods and styles on programs that also feature the Symphonic Orchestra. Once a week this class meets from 7:30 to 8:05 a.m.

***♦CHAMBER ORCHESTRA**

2 periods per week, full year, ½ credit

The chamber orchestra, open to qualified, advanced players, studies and performs orchestral works from various periods in music history. This group's performances occur on programs that feature the regular orchestra, in which members of the Chamber Orchestra must also perform. A balanced instrumentation is determined and maintained by the instructor.

***♦VOCAL ENSEMBLE**

2 periods per week, ¼ credit per semester

Students in Vocal Ensemble sing repertoire along with the Concert Choir and Mixed Chorus but also perform works suitable for intimate vocal groups.

INSTRUMENTAL ENSEMBLE

2 periods per week, ¼ credit per semester

Instrumental ensembles of varying types and sizes (trios, quartets, etc.), are organized in September of each school year. These ensembles are for all students, regardless of level and ability, and are scheduled with the band director.

***JAZZ ENSEMBLE**

1 evening rehearsal per week, ½ credit

The literature for this course is taken from the swing, pop, rock, and fusion styles of twentieth-century American jazz. Students read jazz charts and develop their jazz stylization and improvisational skills. Membership is determined by the instructor and is shaped by the need to maintain balanced instrumentation.

INTRODUCTION TO PIANO

2 periods per week, full year, ½ credit

Introduction to Piano is a course for the novice pianist and music enthusiast. The course includes, the development of proficiency in areas of functional keyboard skills, an introduction to the music theory skills necessary for playing piano (e.g. reading notation and rhythm, scales, intervals, and chords), and learning piano repertoire. The course will follow the Bastian "Piano for Adults - Level 1 and 2" series. Students are required to purchase their instruction book for this course.

ADVANCED PIANO COACHING

2 periods per week, full year, ½ credit

Advanced Piano Coaching is a course for serious pianists who study piano privately and wish to receive supplemental instruction. The course will entail the study of piano literature from the Baroque through the 21st-century, with emphasis on both standard composers and underrepresented composers. The course will also include lectures on form and analysis, scales and modes, piano literature, the history of the piano, and master classes with both the instructor and guest teachers.

INSTRUMENTAL MUSIC INSTRUCTION

(no credit)

Instrumental instruction can be taken by the novice who wishes to learn to play an instrument or the continuing student who wants to improve. All members of the band and the orchestra are expected to select this course to supplement their training. The course should not be pre-elected and awards no credit.

***LISTENING TO MUSIC**

4 periods per week, full year, 1 credit, or
4 periods per week, half year, ½ credit

This course, a survey of great music by eminent composers from the Middle Ages to the present, promotes greater musical enjoyment and understanding through listening experiences and historical study. Because the approach to instruction is chronological, students can enroll for either a semester or the full year.

***JAZZ APPRECIATION**

2 periods per week, full year, ½ credit

This course is designed for the student who wants to listen to and know more about great jazz. It provides an historical overview of the styles, cultural aspects, and personalities that have shaped this great American art form.

JAZZ IMPROVISATION

2 periods per week, full year, ½ credit, or
2 periods per week, half year, ¼ credit

This course uses standard jazz repertoire to help students develop and improve their improvisational skills. Some prior knowledge of jazz harmony and chords is beneficial. We strongly recommend that students taking this course also participate in jazz ensemble. This class is not a publicly performing ensemble.

***DIGITAL MUSIC**

2 periods per week, full year, ½ credit

Open to all students, this class is for musicians, podcasters, DJs, singer songwriters, filmmakers, and game and robot designers. Through a project-based sequence, learn how to use industry standard digital music interfaces to compose, write your scores, record, make beats, create film soundtracks, compose music special effects, popular music genre mixes, and expressive backgrounds for storytelling.

***MUSIC THEORY**

2 periods per week, full year, ½ credit

This course, open to both the serious musician and the student with little or no background in music, presents basic fundamentals: scales, intervals, chords, rhythms, ear training, and music reading and writing.

***MUSIC THEORY 825, Advanced Topics
Grades 10 through 12**

2 periods per week, full year, ½ credit

This college-level course provides an extensive, in-depth study of the elements and applications of music, offers analysis of stylistic tendencies, explores the reasons why music moves us aesthetically, and examines contemporary methods of music composition.

Prerequisite: permission of the instructor and previous course work or comparable experience in music theory

***ACT I: ALL THE WORLD'S A STAGE**

4 periods per week, half year, ½ credit

Students will focus primarily on acting and becoming comfortable with speaking in front of an audience. They will also explore ensemble building, roles in production, improvisation, theatre history, and playwriting. Students may elect to showcase their work at the end of the school year.

***ACT II: SETTING THE STAGE**

4 periods per week, half year, ½ credit

Students will explore various approaches to creating an onstage character, including the use of facial expression, body language, and vocal variety. They will work through scenes in comedy and drama, from classical through contemporary works, and will showcase their work at the end of the school year.

Prerequisite: Act I or permission of the instructor

***ACT III: MASTER CLASS**

4 periods per week, half year, ½ credit

Students will explore advanced topics in theatre—voice and movement, audition prep, scene study, directing, improvisation, playwriting, and devising—and may work on small-group, long-term projects that help them develop and sharpen their skills as creators, advisers, and collaborators. Participants will showcase their work at the end of the school year.

Prerequisites: Act I and Act II as well as permission of instructor

***CREATIVE STAGE: IMPROVISATION**

4 periods per week, half year, ½ credit

Students will play theatre games and apply improvisational techniques to material they

encounter in plays, current events, and newspaper articles. They will perform in the showcase at the end of the year.

THEATER TECH

2 periods per week, half year, ¼ credit

This course in the technical aspects of theater arts meets one evening per week and is presented in two phases. The first focuses on stage mechanics, scenery design, and lighting design; the second, on the construction of scenery and the maintenance and operation of properties and stage equipment. Students develop essential skills and gain practical experience by assisting in the production of the many events held in the theater during and after school hours. Participation in after-school events is required each semester.

PHYSICAL EDUCATION

Scarsdale High School's physical education program provides opportunities for students to attain skills, knowledge, and habits of mind necessary to lead a healthy, active, and productive life. Curricula, instruction, and assessment prepare students to manage their personal fitness today and throughout their lives.

**INTRODUCTION TO PHYSICAL EDUCATION
Grades 9 and 10**

2 periods per week, full year, ½ credit

The objective of the 9th and 10th grade Physical Education course is to expose students to a wide variety of learning experiences in an effort to prepare them for the elective experience in their final three years of Scarsdale Physical Education. Students will be acquainted with the five different teaching spaces and the specific instructional purpose each serves in the overall program. Every unit is designed to provide all students with opportunities for mental, physical, and social growth and development. The teaching and assessment strategies are designed to meet the needs of all skill levels and will include experiences in all six categories: Team Sports, Racket & Net Sports, Dance & Movement, Outdoor & Adventure

Activities, Fitness & Personal Performance, and Target Sports. This Foundations course will also include the Hands-only CPR graduation requirement and fitness testing as one requirement for eligibility for Athletic Participation course enrollment in their 11th and 12th grade years.

GRADE 11 AND 12 ELECTIVES

DANCE AND MOVEMENT

Grade 11 and 12

2 period per week, half-year, .25 credit

This course will introduce the student to many genres of dance including Jazz, Multicultural, Modern, Basic Ballet, and Ballroom Dance. We will learn how to move the body in a fun and rhythmic way! Opportunities to choreograph will be weaved throughout, helping us to develop our thoughts and express our feelings while we work in small and larger groups. This course is for everyone! Students will learn to be dancers, build confidence, and come away with an appreciation of the arts.

Units of study for the first semester will include ballet, modern dance, and work with the Alvin Ailey Dance Theater. Units of study for the second semester will include creative dance, jazz, and ballroom dance.

RACKET AND NET SPORTS

Grades 11 and 12

2 period per week, half-year, .25 credit

This course will provide students the opportunity to focus on racket and net sports. Students further their knowledge of each sport by studying and applying rules and strategies. Their skills improve through drills and game play. They also participate in strength/fitness training to enhance their performance level in each sport. Core skills include ground strokes, forehand, backhand, overhead, smash, drop shot, volley, top spin, and scoring.

Units of study for the first semester will include tennis, platform tennis, and volleyball. Units of study for the second semester will include badminton, pickleball, tennis, table tennis, and platform tennis.

OUTDOOR AND ADVENTURE ACTIVITIES

Grades 11 and 12

2 period per week, half-year, .25 credit

Various outdoor/adventure activities facilitate the development of effective interpersonal skills with a focus on communication, decision-making, problem solving, and opportunities for leadership. Engaging students in these unique and relevant experiences work towards creating a sense of community among the members of each physical education class.

Units of study for the first semester will include hiking, orienteering, cooperative games, traverse climbing, and top rope climbing/belaying. Units of study for the second semester will include cooperative games, traverse climbing, top rope climbing/belaying, elementary games, and hiking.

FITNESS AND PERSONAL PERFORMANCE

Grades 11 and 12

2 period per week, half-year, .25 credit

Students will be able to design an individualized fitness plan consisting of different modalities of fitness (strength, flexibility, cardiovascular endurance, recovery) and implement that plan for the duration of the quarter. Design, goal-setting (long- and short-term), implementation, and progress will be components of the course.

Units of study for the first semester will include strength and conditioning or walking for wellness and rollerblading. Units of study for the second semester will include strength and conditioning or yoga/stress management and walking for wellness.

TEAM SPORTS

Grade 11 and 12

2 period per week, half-year, .25 credit

Students will apply knowledge of movement skills and movement concepts to identify and evaluate physical activities that are needed to play a team sport. Students will learn the rules of each sport and practice strategies that promote skill development and improvement, as well as focusing on teamwork.

Units of study for the first semester will include soccer, field hockey, ultimate frisbee, and floor hockey. Units of study for the second

semester will include basketball, team handball, flag football, and softball.

TARGET SPORTS

Grade 11 and 12

2 period per week, half-year, .25 credit

Through participation in this course, students will learn the skills, techniques, and safety strategies necessary to participate in and enjoy target sports as a lifetime activity. Additionally, students will understand the social and personal responsibility associated with this sport. Students will practice motor skill refinement, understanding that accuracy, technique, and movement require a logical and sequential approach in order to experience success in this unit.

Units of study for the first semester will include archery, curling, bocce, croquet, and Kan Jam. Units of study for the second semester will include bowling, golf, and disc golf.

Independent Study: Students may apply to take independent study courses in physical education for a maximum of three quarters during their tenth through twelfth grade years, with a limit of one per year. Participants are required to have achieved "Healthy Fitness Zone Standards" for the FitnessGram Assessment, be current in meeting their physical education requirements, be engaged in an educational environment, be supervised by a certified professional, and pursue a course of study that the high school does not offer in any form. Recreational and competitive activities do not qualify for course approval. Interested students can get the required application from the office of the assistant principal for academics, in room 323. Applications are due no later than two weeks after the start of the school year.

Prerequisite: approval of the department chair

Graduation Requirements: New York State Department of Education graduation regulations mandate that students earn two high school credits in physical education. Students earn half a credit per year for successfully completing all four required quarters of physical education.

SCIENCE

Science courses that satisfy the one-credit physical science graduation requirement are noted with an asterisk (*). All others satisfy the one-credit life science graduation requirement.

BIOLOGY 511

Grade 9

6 periods per week, 1 credit

This college-preparatory course provides a conceptual overview of the subject via an exploration of cellular and molecular biology, organismal structure and function, evolution and diversity, genetics, and ecology. Students develop and practice their scientific problem-solving skills in laboratory investigations. The final exam for the course is the New York State Living Environment Regents.

BIOLOGY 512

Grade 9

6 periods per week, 1 credit

Biology 512 is a college-preparatory course that provides a comprehensive overview of the concepts of biology and offers students many opportunities to practice and develop scientific problem-solving skills, particularly during laboratory investigations. Topics include cellular and molecular biology, organismal structure and function, evolution and diversity, genetics, and ecology. The final exam for the course is the New York State Living Environment Regents.

BIOLOGY 513

Grade 9

6 periods per week, 1 credit

Biology 513 explores the topics covered in Biology 511 and 512; however, all topics are studied in greater depth and with significant emphasis on analysis and application.

*EARTH SCIENCE 511

Grade 10

6 periods per week, 1 credit

This college-preparatory course introduces students to concepts in geology, including Earth's composition, physical properties, and processes. Topics include rocks and minerals,

plate tectonics, surface processes, natural resources, and issues associated with them. Laboratory investigations provide opportunities to practice and develop scientific problem-solving skills.

***EARTH SCIENCE 512**

Grade 10

6 periods per week, 1 credit

This college-preparatory course introduces students to concepts in geology, including Earth's composition, physical properties, and processes. The course addresses global and

Note: Participation in Biology 525, Chemistry 525, Geology 524, and Physics 525 requires the approval of the science department. Selection criteria include grades in previous math and science courses as well as recommendations of science teachers. Application MUST be made by January 28, 2022.

local issues related to mineral, energy, and water resources. Laboratory investigations provide opportunities to practice and develop scientific problem-solving skills.

***EARTH SCIENCE 513**

Grade 10

6 periods per week, 1 credit

Earth Science 513 explores the topics covered in Earth Science 511 and 512; however, they are studied in greater depth and with significant emphasis on analysis and application.

***CHEMISTRY 511**

Grade 11

6 periods per week, 1 credit

Chemistry 511 is a college-preparatory course that provides an overview of concepts in chemistry, focusing on the structure of matter and the changes it undergoes. The course emphasizes reading in the subject area, decision making, data analysis, and problem solving. Hands-on laboratory activities reinforce concepts learned in class.

Prerequisite: Earth Science

***CHEMISTRY 512**

Grade 11

6 periods per week, 1 credit

Chemistry 512 is a college preparatory course designed to give students practical

knowledge about the chemistry experienced within and around them in everyday life as well as establish a firm foundation for any post-high school chemistry training students may choose to pursue. The course emphasizes reading in the subject area, decision making, data analysis, and problem solving. The course will also further explore the underlying chemical principles relating to geology and meteorology. Hands-on laboratory activities and daily group work are used to engage students in concepts that will be covered in class.

Prerequisite: Earth Science

***CHEMISTRY 513**

Grades 10 and 11

6 periods per week, 1 credit

Chemistry 513 explores in depth the fundamental topics of chemistry, including the structure of matter, changes that it undergoes, and the energy that accompanies those changes. Hands-on laboratory activities reinforce concepts learned in class. Students must have strong mathematical problem-solving skills to master the quantitative relationships developed throughout the course. (Those who have done well in Math 423 or Math 424 are usually successful in this course, whereas those who have taken Math 422 are often challenged by the mathematical applications.)

***PHYSICS 511 (Conceptual Physics)**

Grade 12

6 periods per week, 1 credit

In this college-preparatory course, students develop the skills required to conduct experiments and do project-based work in physics and engineering. Topics include motion, forces, energy, momentum, and buoyancy. Students participate in an extensive laboratory program and group projects that focus on the applications of these topics to the everyday world.

Prerequisite: Chemistry

***PHYSICS 512 (Conceptual Physics)**

Grades 11 and 12

6 periods per week, 1 credit

This college-preparatory course surveys the topics of motion, forces, energy, momentum, buoyancy, electricity, and magnetism. Students participate in an extensive laboratory program

and in group projects that focus on the applications of these topics to the everyday world.

Prerequisite: Chemistry

***PHYSICS 513**

Grades 11 and 12

6 periods per week, 1 credit

In this comprehensive physics course students explore the nature of motion and forces in the mechanical universe. Topics include the study of motion, force, energy, waves, sound, optics, electricity, magnetism, and an introduction to modern and nuclear physics. Laboratory exercises provide hands-on experiences.

Prerequisite: Chemistry 513

Corequisite: Math 443 or higher

BIOLOGY 525, Advanced Topics Biology

Grade 12

6 periods per week, 1 credit

This Advanced Topics course, the equivalent of a university-level introduction to biology, is appropriate for students with an interest in the subject and a demonstrated record of success in accelerated (513) science courses. Major themes include the transmission of biological information, the evolution of life, and the flow of energy through living systems. Laboratory work is an essential component of the course and culminates in the writing of lab reports.

Prerequisites: Biology 513, Chemistry 513, and either Physics 513 or Earth Science 513

***CHEMISTRY 525, Advanced Topics**

Chemistry

Grade 12

6 periods per week, 1 credit

Advanced Topics Chemistry is the equivalent of a university-level introduction to inorganic chemistry. The course requires students to have the strong mathematical skills necessary to analyze and solve the problems that grow out of the in-depth presentation of many complex topics. Laboratory work is an essential component of the course and culminates in the writing of lab reports.

Prerequisites: Chemistry 513 and Physics 513

Corequisite: Math 455

***GEOLOGY 524, Honors Geology**

Grade 12

6 periods per week, 1 credit

This honors-level geology course explores topics in mineralogy, plate tectonics, surface and ground water, geologic history, and paleoclimatology. Students use real-time data for the analysis of natural disasters and hazard mitigation. Additionally, they evaluate global issues related to the need for mineral, energy, and water resources.

Prerequisites: Chemistry 513 and Physics 513

***PHYSICS 525, Advanced Topics Physics
(Mechanics)**

Grade 12

6 periods per week, 1 credit

This course is similar to a first semester, calculus-based, college physics course. Students who have excelled in Physics 513 and enjoy the challenge of studying the mechanical universe will find this course an interesting extension of their physics knowledge. Studies in the history and philosophy of physics provide rich contextualizing information.

Prerequisites: Chemistry 513 and Physics 513

Corequisite: Math 455

ENVIRONMENTAL SCIENCE 523

Grade 12

6 periods per week, 1 credit

Environmental Science focuses on the interdependence of the Earth's natural systems and the ways in which humans have impacted this delicate balance. Topics include energy conservation, alternative energy, climate change, sustainability, and pollution of air, water, and land. Laboratory and field investigations are major parts of the course.

Prerequisites: Biology and Chemistry

SCIENCE RESEARCH

Grades 10 through 12

4 periods per week, 1 credit

Science Research is designed to help students explore in depth a topic of interest in psychology, math, biological science, chemical science, or physical science. Students conduct bibliographic searches of international print and online databases, present selected journal articles, and work with a mentor who assists them in their original research projects.

This course is designed as a three-year sequence that commences in the sophomore year, during which students develop basic skills. The major portion of research and data collection takes place during the junior year. During the summer before senior year, students finish writing a paper based on that research, which they must submit to mandatory competitions and may elect to submit for publication. Participants are expected to complete independently a minimum of five hours of documented work each week. An annual summer research component is mandatory.

Students who are interested in taking the course must attend an informational evening session with their parents and the annual Science Research Symposium, both of which take place in late spring. A mandatory assignment, to be completed during the summer between the freshman and sophomore years, must be handed in on the first day of class.

Prerequisites: exemplary completion of the introductory assignment and approval of the department chair

SOCIAL STUDIES

WORLD HISTORY 611

Grade 9

4 periods per week, 1 credit

The course examines the history of the world from the origin of humans through approximately 1700. The course emphasizes cross-cultural contact and the ways in which such contact leads to change or resistance to change. Students will trace social, intellectual, artistic, religious, technological, political, and economic developments and their impact on the evolution of human societies. The similarities and differences among the world's peoples will be stressed. Another major emphasis in the course will be the development of skills in reading, writing, note-taking, and historical research. This course is specifically designed for students whose reading and writing skills require specialized attention.

WORLD HISTORY 612

Grade 9

4 periods per week, 1 credit

This course examines the history of the world from the origins of humans through approximately 1700 by comparing and contrasting world cultures and exploring the ways in which social, intellectual, artistic, religious, technological, political, and economic developments have shaped human societies and produced cross-cultural changes. Instruction is designed to help students develop the reading, writing, note-taking, and research skills they will use during their high school careers. Within the World History 612 program, some students may wish to elect the Civic Education program. For a description of that program, see page 43.

WORLD HISTORY 621

Grade 10

4 periods per week, 1 credit

This course continues the history of civilization, starting in the eighteenth century and progressing to the present day. Continuing exploration of themes studied in World History 611, this course emphasizes the interdependence and interconnectedness of the world's cultures. Skill development in reading, writing, and historical research will continue to be central to the curriculum. At the end of the course, students take the state-mandated Regents exam in World History which solely covers material in this year of the course.

WORLD HISTORY 622

Grade 10

4 periods per week, 1 credit

This course continues the history of civilization starting in 1700 and progressing to the present day. Continuing exploration of themes studied in World History 612, the course emphasizes the interdependence and interconnectedness of the world's cultures. Skills development in reading, writing, and historical research will continue to be central to the curriculum. At the end of the course, students take the state-mandated Regents exam in World History which solely covers material in this course.

U.S. HISTORY AND GOVERNMENT 631

Grade 11

4 periods per week, 1 credit

This course's chronological approach to the study of America's complex national heritage is reinforced by recursive investigations into major themes. Students trace the development of the United States into a major industrial and world power, examine America's democratic ideals, and develop an understanding of the ways in which the Constitution and the American political system have shaped the nation's history and our lives today. Primary and secondary sources as well as original student research broaden and deepen understanding of the ways in which history is written and historians work. At the end of the year, students take the New York State Regents examination in United States history.

U.S. HISTORY AND GOVERNMENT 632

Grade 11

4 periods per week, 1 credit

This course's chronological approach to the study of America's complex national heritage is reinforced by recursive investigations into major themes. Students trace the development of the United States into a major industrial and world power, examine America's democratic ideals, and develop an understanding of the ways in which the Constitution and the American political system have shaped the nation's history and our lives today. Primary and secondary sources as well as original student research broaden and deepen understanding of the ways in which history is written and historians work. At the end of the year, students take the New York State Regents examination in United States history.

U.S. HISTORY AND GOVERNMENT 632

(American Studies)

Grade 11

4 Periods per week, 1 credit

The American Studies course is designed for juniors interested in taking an interdisciplinary social studies and English course that explores the underlying connections between American history and American literature. It helps students understand how historical context affects literature and how literature provides insight into particular historical periods. Although two separate classes, social studies and English are scheduled into blocks that allow those who

teach them to share students, design and teach interdisciplinary units, and coordinate workloads and assignment due dates. At the end of the year, students take the New York State Regents examination in United States history.

Note: Students who select this version of United States History and Government 632 must also select the American Studies version of English 233.

U.S. HISTORY AND GOVERNMENT 635

Grade 11

4 Periods per week, 1 credit

Advanced Topics in United States History explores the historical forces that shaped the nation from the colonial era to the present. A range of instructional techniques, a variety of assignments, and regular opportunities to research, learn actively, and write, provide students with opportunities to master a significant body of content and develop and apply thinking and research skills. The course teaches skills for reading historiography critically, which enable students to distinguish among and assess various interpretations of American history. Admission is based on recommendations of previous teachers, course grades, and a test given in late January of the sophomore year. Students taking this course may elect to take the Advanced Placement exam in United States history.

TWELFTH GRADE SOCIAL STUDIES

Successful participation in any of the following courses fulfills state requirements for participation in Government and Economics. To promote the skills and knowledge base necessary for effective functioning in a democratic society, each of these courses studies the philosophies, structures, and functions of various forms of government; examines the rights, roles, and responsibilities of citizens functioning in the global community; and teaches students to think and express themselves independently and insightfully. Each course also provides an understanding of major economic concepts and principles of economic decision-making in both domestic and global economies.

**FOOD FOR THOUGHT: THE POLITICS,
ECONOMICS, AND CULTURE OF FOOD
642**

Grade 12

4 periods per week, full year, 1 credit

Food for Thought is a public policy class for students who are interested in understanding where their food comes from, how we can become more sustainable eaters while coping with climate change and limited resources, and how to create a more just and equitable food system where all people have access to healthy, nutritious food. Students will use critical and analytical thinking to identify the challenges and problems that face our current global food system, and use innovation and creativity along with design thinking to propose solutions and alternatives. In addition, the class spends time looking at and trying different cuisines to understand in more depth the meaning of food for diverse cultures and peoples, and the significance of food within a globalized world.

PEACE-ING IT TOGETHER: GLOBAL CITIZENSHIP IN THE 21st CENTURY 642

Grade 12

4 periods per week, full year, 1 credit

Are you interested in exploring global citizenship and current issues and understanding the dynamics of the global community and your role in it as global citizens and future leaders? Using current events, films, speakers, surveys, and field trips, we examine key issues of human rights, power, poverty, gender, justice, environmental challenges, and other timely issues at the national and international level. The course also explores the ways in which political and economic systems both support and undermine human rights and what role the United States, international organizations and NGOs play in this process. The course is project-based and incorporates group service learning opportunities. Students will strive to bring the course out into the broader community as active and empathetic citizens of the world through the design of their own final projects.

LIVING IN AMERICA: POLITICAL AND ECONOMIC LIFE IN TODAY'S AMERICA 642

Grade 12

4 periods per week, full year, 1 credit

Who has political and economic power in the United States? How did they get it, and how do they keep it? Exploring the myths of American civic life, this course will empower students to understand and critically engage with contemporary American politics and economics. Activities will be tailored to the developments of the moment, and may include election simulations, media analyses, and research in areas of personal interest. Students will be encouraged to see beyond the spin of the news cycle and discern for themselves which stories really matter, and what political and economic developments really mean. Along the way, the course will afford students the opportunities to study recent political history, explore current political and economic controversies, and develop and question political identities of their own.

**CITY 2.0: REDESIGNING URBAN LIFE IN
REAL TIME 642**

Grade 12

4 periods per week, full year, 1 credit

What are the key issues that urban centers and local communities will confront in the 21st century? How can we think differently about the way we live to prepare for the future? In this course, students will examine a variety of topics at the local and regional level, such as housing, immigration, infrastructure, education inequalities, and voting rights. Some units will take students outside the classroom walls, where they will be expected to engage directly in their communities by contacting and/or working with relevant organizations and professionals. The course uses "Design Thinking" as a way to solve human-centered problems and emphasizes collaboration, interaction with experts, and the use of an interdisciplinary array of tools for gaining knowledge and making change, including ethnography, interviews, and social science research. For some students, City 2.0 projects could become a launch pad for a Senior Options project.

ADVANCED TOPICS COURSES

Prerequisites: recommendations of previous teachers, grades in previous courses, and a test given in late January of junior year

COMPARATIVE GOVERNMENT WITH ECONOMICS 645

Grade 12

4 periods per week, full year, 1 credit

This college-level course provides participants with an in-depth understanding of the American political system and facilitates basic literacy in economics. Topics include the fostering of political attitudes and identities, the nation's system of campaigns and elections, and the inner-workings of the Federal government as shaped by the Constitution. The course also explores themes of race and class and the ways in which both intersect in American politics, government, and the court system. Participants will be expected to be conversant with contemporary issues, read independently, and demonstrate their understanding in projects, quizzes on current events, and in-class presentations.

MACROECONOMICS WITH AMERICAN GOVERNMENT AND POLITICS 645

Grade 12

4 periods per week, full year, 1 credit

This college-level course leads participants to an understanding of public policy through an integrated study of the American economy and government. Students examine political and economic concepts and institutions and then analyze issues and case studies at the local, national, and international levels. Economic topics include national income, price determination, economic growth, and international economics. Students apply economic principles to the investigation of such real problems as income inequality, globalization, and the economics of environmental protection.

The political focus of the course includes investigations into constitutional concepts and institutions: federalism, separation of powers, Congress, the presidency, the federal judiciary, political parties and interest groups, civil rights, and civil liberties. Course requirements include extensive primary-source and secondary-

source readings, critical essay assignments, and simulations.

AMERICAN GOVERNMENT AND POLITICS WITH ECONOMICS 645

Grade 12

4 periods per week, full year, 1 credit

This college-level course provides participants with an in-depth understanding of the American political system and facilitates basic literacy in economics. Topics include the fostering of political attitudes and identities, the nation's system of campaigns and elections, and the inner-workings of the Federal government that are outlined in the United States Constitution. The course also explores themes of race and class and the ways in which both intersect in American politics, government, and the court system. Participants will be expected to be conversant with contemporary issues, read independently, and demonstrate their understanding in current events quizzes, projects, and in-class presentations.

WESTERN POLITICAL, ECONOMIC, AND CULTURAL TRADITIONS 645

Grade 12

4 periods per week, full year, 1 credit

This college-level course explores from economic and political perspectives the development of the Western Tradition. Students examine how Europe and the United States have shaped and defined the Western Tradition, explore diplomatic, cultural, and military themes, and draw connections between Western literature and major historical, political and economic themes. Throughout the course, students analyze selected governmental and economic developments in detail. Course requirements include extensive readings in primary and secondary sources, and the writing of short essays and research papers.

UNITED STATES CONSTITUTIONAL LAW 645

Grade 12

4 periods per week, full year, 1 credit

Participants in this course study the evolution of the United States Constitution by examining key issues and landmark cases that have shaped it, understanding the friction between state and federal powers, considering the extent

to which the Constitution is an “organic” instrument, and exploring issues that stand before the Court today: racial equality, marriage equality, reproductive rights for women and men, economic rights, healthcare, privacy, immigration, free speech, religion, citizenship, environmental rights, rights of the accused and social justice. The economics portion of this course will explore issues such as labor rights, contract rights, and the regulation of free markets. Students will be expected to read texts, law cases, and Court opinions; follow the docket of current cases before the Supreme Court; participate in class discussions and debates; write reflective and analytical papers; and prepare group and individual presentations.

INTERNATIONAL POLITICS AND ECONOMICS 645: GLOBAL ISSUES IN THE 21st CENTURY

Grade 12

4 periods per week, full year, 1 credit

International Politics is a college-level course in which students investigate the complex political, economic, and social challenges that characterize our increasingly interconnected, globalized world. Using the conceptual framework of political science, participants engage academically and experientially in a comparative study of the ways in which and reasons why countries and their citizens collectively respond to real-world conditions.

Course requirements include primary source readings and case studies, critical essays, simulations, social media, blogs, investigative journalism, and field work. In the culminating activity, students design and develop a project in which they bring their own academic interests, experiences, and passions to the exploration of a global issue relevant to the themes and ideas of the course.

SOCIAL STUDIES ELECTIVES

PSYCHOLOGY

Grades 10 through 12

4 periods per week, half year, ½ credit

This course serves as an introduction to psychology for students who have had little or no exposure to this discipline's theories and methods for understanding human behavior. Major units include aggression, motivation, theories of

personality, humanistic psychology, educational psychology, perception, emotions, and stress. Case studies for the course are taken from both fiction and non-fiction sources.

PSYCHOLOGY 645

Grades 11 and 12

4 periods per week, full year, 1 credit

This introductory college-level course offers a systematic study of concepts, principles, and practices associated with the major subfields of psychology. Topics include research methods, biological bases of behavior, learning and cognition, developmental psychology, social psychology, treatment of psychological disorders, and ethics. Course requirements include extensive primary- and secondary-source readings, the writing of numerous critical essays, and experimental research projects.

Prerequisites: grades in previous courses, teacher recommendations, and a qualifying test

THE GREAT DIVIDE: RACE AND ETHNICITY IN AMERICA

Grades 10 through 12

4 periods per week, half year, ½ credit

This course examines the roles that race and cultural identity play in America's pluralistic society. Students learn how our history, mythology, and beliefs have contributed to our sense of who we are as individuals and as a nation. They examine the values that shape their common identity, those that can lead to conflict, and the role of the media as a shaper and reflector of social attitudes. Analysis of the consequences of a range of responses to ethical and moral dilemmas around issues of race, ethnicity, and prejudice, help students make informed decisions about their attitudes and behavior when those dilemmas arise in their lives. Students read primary and secondary sources, conduct interviews, write several short papers, and participate in discussions and simulations.

GENDER AND POLITICS (formerly Sexual Politics)

Grades 10 through 12

4 periods per week, half year, ½ credit

This course examines the roles that gender, race, sexuality, and social expectations play in the development of identity and interpersonal relationships. Students explore the roots of gen-

der inequalities, examine various forms of resistance and activism, and analyze the representation of gender and sexuality in America's political, cultural, and educational institutions. Topics include sexual identity and relationships, gender roles, body image, employment, and historical developments in feminist thought. Student participation in social science experiments, simulations, debates, and discussions both generates objective analysis and validates personal perspectives.

THE WAKING MIND: AN INTRODUCTION TO MODERN PHILOSOPHICAL THOUGHT

Grades 10 through 12

4 periods per week, half year, ½ credit

This course examines a variety of philosophical perspectives on the nature of technology, truth, reality, and free will. Participants will explore these topics through popular culture media (movies, music, art, podcasts) and in writings by classical and modern thinkers. They will develop and hone their ability to ask and deconstruct philosophical questions, identify and avoid faulty logic, and engage in philosophical conversations with peers via class and online discussions.

CRIMINAL JUSTICE

Grades 10 through 12

4 periods per week, half year, ½ credit

This course examines major issues in criminal justice—race, gender, class, punishment (death penalty), the War on Drugs, terrorism, gun control—and investigates key aspects of the criminal justice system from the perspectives of both prosecution and defense. Topics include the origins of criminal law, the causes of crime, and the ways that a victim or suspect interacts with the criminal justice system, from the moment a crime takes place to final adjudication of the case. Assignments include participation in classroom seminars, readings, the briefing of legal cases, reflective essays, and a final project.

AMERICA ON THE SCREEN

Grades 10 through 12

4 periods per week, half year, ½ credit

This course focuses on social and cultural forces in twentieth-century American history as depicted in film, documentaries, television, and

other audio/visual media. Homework assignments will include film viewings, readings of primary sources and film criticism, reflective writing, analytical writing, and group and individual projects.

WORLD LANGUAGES

The Department of World Languages offers courses in Latin, French, Spanish, and Mandarin.

LATIN

The department offers four years of Latin. Students learn to read and write in Classical Latin and to use basic oral Latin in their daily lives. Students deepen their understanding of other languages, especially English, and discover classical culture through the study of Roman customs, mythology, history, and literature. Courses are open to all students.

LATIN 312

Grades 9 through 12

4 periods per week, 1 credit

Students are introduced to the Latin language through stories about the lives of ancient Romans. Through the study of vocabulary and basic grammar, students increase their language awareness and expand their English vocabulary.

LATIN 313

Grades 9 through 12

4 periods per week, 1 credit

Students master the fundamentals of Latin grammar and develop proficiency in reading, writing, and speaking. By studying Greco-Roman art and history as well as the roots of English vocabulary, students learn how these ancient civilizations influenced our modern world.

LATIN 322

Grades 10 through 12

4 periods per week, 1 credit

This course will deepen the language skills introduced in Latin 312. Students will continue to deepen their language awareness and develop proficiency in reading, writing and speaking Latin. The ancient world comes alive with the study of soldiers, senators, gladiators and emperors.

LATIN 323

Grades 10 through 12

4 periods per week, 1 credit

In this course, which follows Latin 313, students advance their reading, writing, and speaking skills, and gain a thorough and systematic knowledge of the structure of the Latin language. At the end of this course, students will be able to read authentic ancient texts written in Latin.

Prerequisite: grade of C or better in Latin 313 or equivalent

HONORS LATIN 334/344

Grades 11 and 12

4 periods a week, 1 credit

Honors Latin 334 (third year) and 344 (fourth year) are taught as a single, combined class. Two versions of the course (A and B below) are offered in alternate years. For a student entering after Latin 323, the transcript will show Honors Latin 334; if a fourth year is elected, it will appear as Honors Latin 344 on the transcript.

HONORS LATIN 334/344A

Grades 11 and 12

4 periods per week, 1 credit

In this course, readings from Caesar, Ovid, and Virgil facilitate in-depth examinations of the nature of myths and legends in Greco-Roman tradition. Students apply explorations of classical literary features to readings of Latin poetry and prose.

Prerequisite: grade of C+ or better in Latin 323 or equivalent

HONORS LATIN 334/344B

Grades 11 and 12

4 periods per week, 1 credit

In this course, students examine the Romans' views of their way of life through readings from Virgil, Caesar, Catullus, and Martial. Students also read a Roman comedy by Plautus.

Prerequisite: grade of C+ or better in Latin 323 or equivalent

MODERN LANGUAGES

Since the primary goal of all modern language courses is to help students achieve functional or even proficient communication in the target language, all aspects of our modern language classes are conducted in the target languages. Supplementary study help in all four languages is available in the World Languages Center (room 415).

FRENCH, SPANISH, and MANDARIN

A long sequence of courses is offered to students who began their study in elementary or middle school; a short sequence is for those who begin in high school. Honors courses are open to highly motivated, highly capable students.

French

FRENCH 312

Grades 9 through 12

4 periods per week, 1 credit

In this fundamental course in French, a communicative approach introduces students to a variety of vocabulary topics, verb conjugations, and grammatical structures. The course is directed towards oral/aural fluency. Students are exposed to the French-speaking world via multimedia and authentic sources.

FRENCH 322

Grades 9 through 12

4 periods per week, 1 credit

Continuing the communicative approach and study of grammatical structures begun in French 312, this course helps students become more independent readers and speakers of French. Cultural instruction revolves around daily life activities in France and other French-speaking parts of the world.

Prerequisite: grade of C- or better in French 312 or equivalent

FRENCH 323

Grade 9

4 periods per week, 1 credit

French 323 employs a communicative approach to the study of vocabulary and grammatical structures, which is supplemented with the use of dialogues, cultural notes, and authentic documents from a variety of sources. Students are exposed to French culture through the study of holidays and in cultural readings that include poems, short stories and pieces about art and food.

Prerequisites: grade of B or better in eighth-grade French or equivalent, and the eighth-grade teacher's recommendation

FRENCH 324

Grade 9

4 periods per week, 1 credit

By developing their vocabulary and learning more advanced grammatical structures, students become increasingly proficient in using French in real-life situations. Instruction in this rapidly paced course includes an introduction to French poetry and short stories, French history, and cultural traditions in the French speaking world.

Prerequisites: grade of A or better in eighth-grade French or equivalent, and the recommendation of the eighth-grade teacher

FRENCH 332

Grades 10 through 12

4 periods per week, 1 credit

A group of cultural readings is used as a basis to practice conversational skills and to reinforce and build vocabulary and grammar skills. Audio-visual aids, including films, supplement the curriculum.

Prerequisite: grade of C- or better in French 322 or equivalent

FRENCH 333

Grade 10

4 periods per week, 1 credit

Following a review of grammar principles presented in French 323, the course introduces more advanced structures and builds vocabulary considerably. The ongoing emphasis on

conversation facilitates dialogues and discussions based on cultural readings.

Prerequisite: grade of C+ or better in French 323 or equivalent

FRENCH 334

Grade 10

4 periods per week, 1 credit

Topics for oral and written expression are drawn from contemporary events, daily experiences, and reading selections. Students develop composition skills that increase their fluency. Pronunciation is reinforced and vocabulary is enriched through the reading of short stories, and the year culminates with the reading of their first novel, *Le Petit Prince*.

Prerequisites: grade of B- or better in French 324 or equivalent, and teacher recommendation

FRENCH 342

Grades 11 and 12

4 periods per week, 1 credit

French 342 both reinforces basic topics and introduces the present subjunctive. Topics are based on authentic situations that a tourist would encounter in a French-speaking country. Students are exposed to French culture in the context of art and literature. The use of audio-visual realia allows for an immersion experience and facilitates wide-ranging discussions.

Prerequisite: grade of C- or better in French 332 or equivalent

FRENCH 343

Grade 11

4 periods per week, 1 credit

In this course students apply in conversation the language skills acquired in French 323 and 333. Class discussion, reading selections, music, reviews, and short compositions serve to enrich vocabulary, improve reading, and refine students' understanding of basic structural elements of the language. Topics for discussion include current events, individual interests, and changes in French society from the mid-twentieth century to the present.

Prerequisite: grade of C+ or better in French 333 or equivalent

FRENCH 344

Grade 11

4 periods per week, 1 credit

In this course students explore literary works and authentic materials that provide interesting and relevant content and offer opportunities for cultural enrichment. The study of grammatical structures and the modern idiomatic usage of French in both oral practice and written composition helps students move toward oral and written proficiency. The course is good preparation for the senior-year Advanced Topics language course.

Prerequisites: grade of B- or better in French 334 or equivalent, and teacher recommendation

FRENCH 352

Grade 12

4 periods per week, 1 credit

French 352 both reinforces previously learned topics and introduces new structures. Students are exposed to French culture in the context of art, readings, and film. The course incorporates a wide range of project-based assessments with a focus on holistic communication and demonstrating understanding while practicing essential structures. Prerequisite: grade of C- or better in French 342 or equivalent

FRENCH 353

Grade 12

4 periods per week, 1 credit

This course offers students the opportunity to refine their communication skills. A study of French film, accompanied by related readings, complements the study of advanced grammar and vocabulary. These authentic documents and materials are sources for in-depth study of cultural topics and current issues in French society.

Prerequisite: grade of C+ or better in French 343 or equivalent

FRENCH 355 (AT French Language)

Grade 12

4 periods per week, 1 credit

The rigorous Advanced Topics course in French Language is equivalent to a third year (fifth or sixth semester) college course in advanced French composition and conversation. It is intended for highly motivated and talented students who strive for proficiency as lis-

teners, speakers, readers, and writers. Electronic media sources in audio and print formats, as well as news broadcasts, film and literature stimulate extemporaneous conversations, classroom discussions, debates, presentations, and essay topics. A portfolio project serves as the culminating course assessment.

Prerequisites: grade of B or better in French 344 or equivalent, and teacher recommendation.

Spanish

SPANISH 311

Grades 10 through 12

4 periods per week, 1 credit

Spanish 311 is a modified, project-based introductory class for students whose language skills require special attention. The course provides instruction in small groups to allow students to develop basic communicative ability in Spanish. Emphasis is placed on using the language in real world situations. Class size is small to allow maximum participation.

Prerequisite: recommendation of both the student's dean and the department chair

SPANISH 312

Grades 9 through 12

4 periods per week, 1 credit

This foundational Spanish course employs a communicative approach in order to introduce students to vocabulary, verb conjugations and tenses, as well as particular grammar structures. All four modalities are stressed: listening, speaking, reading, and writing. This course which is conducted in the target language, is intended for students who have not studied Spanish previously.

SPANISH 313

Grades 9 through 12

4 periods per week, 1 credit

This accelerated introductory course is intended for students who have successfully studied another world language or English as a Second Language or who are otherwise capable of acquiring language skills quickly. All four language skills are developed to help students prepare for Spanish 323 or 324.

Prerequisite: approval of department chair

SPANISH 321**Grades 10 through 12**

4 periods per week, 1 credit

A continuation of Spanish 311, this modified, project-based course furthers the development of basic listening, speaking, reading and writing skills that facilitate practical conversation. Class size is kept especially small to allow maximum opportunities for participation.

Prerequisite: successful completion of Spanish 311 or equivalent

SPANISH 322**Grades 9 through 12**

4 periods per week, 1 credit

This course, which follows up on work started in Spanish 312, takes a communicative approach to developing thematic vocabulary, furthering understanding of grammatical structures, and helping students become increasingly independent readers and speakers of Spanish.

Prerequisite: grade of C- or better in Spanish 312

SPANISH 323**Grade 9**

4 periods per week, 1 credit

Spanish 323 applies a communicative approach to the study of vocabulary and grammatical structures. Students become acquainted with the Spanish-speaking world through the use of dialogues, cultural notes, and authentic documents from a variety of sources.

Prerequisite: grade of B or better in eighth-grade Spanish or equivalent

SPANISH 324**Grade 9**

4 periods per week, 1 credit

In this second-level honors course, students study a broad range of vocabulary and idiomatic expressions that they actively use in conversation, dialogues, compositions, and oral reports. Cultural and adapted literary readings are the basis of discussion and serve to reinforce the study of vocabulary and grammar.

Prerequisites: grade of A or better in eighth-grade Spanish or equivalent, and recommendation of the eighth-grade teacher

SPANISH 331**Grade 12**

4 periods per week, 1 credit

This course is intended as a continuation of Spanish 321 with a modified, project-based approach. This course provides further opportunity for students to strengthen basic language skills in the four modalities: listening, speaking, reading and writing. Class size is limited to allow maximum participation.'

Prerequisite: successful completion of Spanish 321 or equivalent.

SPANISH 332**Grades 11 and 12**

4 periods per week, 1 credit

This course begins with a review of basic principles of grammar, expands vocabulary, and introduces more complicated grammatical structures. Reading selections, class discussions, films, and compositions form the basis for continuing language development.

Prerequisite: grade of C- or better in Spanish 322 or equivalent

SPANISH 333**Grade 10**

4 periods per week, 1 credit

In this third year of study, students broaden and deepen their knowledge of grammar and vocabulary so that they can use the language in real life settings. The cultures of the Spanish-speaking world provide a basis for readings, discussions, dialogues, and projects.

Prerequisite: grade of C+ or better in Spanish 323 or equivalent

SPANISH 334**Grade 10**

4 periods per week, 1 credit

Topics for oral and written expression in this honors course are drawn from contemporary events, daily experiences, and reading selections. Vocabulary is enriched through the reading of short stories and literary excerpts; composition skills are developed and grammar is reviewed and expanded to enable students to speak and write Spanish with greater accuracy and sophistication.

Prerequisites: grade of B- or better in Spanish 324 or equivalent, and teacher recommendation

SPANISH 342

Grade 12

4 periods per week, 1 credit

Spanish 342 both reinforces basic topics and introduces the present subjunctive. Topics are based on activities in daily life, student interests, and cultural events. The study of two current films allows for an immersion experience and wide-ranging discussions.

Prerequisite: grade of C- or better in Spanish 332 or equivalent

SPANISH 343

Grade 11

4 periods per week, 1 credit

In this course, class discussions, reading selections, reviews, and short compositions serve to improve oral language skills, increase vocabulary, and improve reading. Topics for discussion include current events, individual interests, and cultures of the Spanish-speaking world.

Prerequisite: grade of C+ or better in Spanish 333 or equivalent

SPANISH 344

Grade 11

4 periods per week, 1 credit

Spanish 344 emphasizes the study of grammatical structures and the modern idiomatic usage of Spanish in both oral practice and written composition. Explorations into literary works and other interesting, relevant, authentic materials that help students move toward oral and written proficiency. The course is good preparation for the senior-year Advanced Topics language course.

Prerequisites: grade of B- or better in Spanish 334 or equivalent, and teacher recommendation

SPANISH 352

Grade 12

4 periods per week, 1 credit

This course reinforces and expands upon the structures studied in previous courses, with emphasis on an inquiry based model that focuses on issues pertinent to the Spanish speaking world. Students review and deepen their language skills: reading, writing, speaking and listening in Spanish. The communicative approach offers students many opportunities to

apply their knowledge in individual and group projects, class discussions, readings and films. An integrated performance based assessment serves as the culminating course project.

Prerequisite: grade of C- or better in Spanish 342 or equivalent

SPANISH 353

Grade 12

4 periods per week, 1 credit

Course discussions emanate from contemporary issues and events, individual interests, and reading selections by authors from Spain and Spanish America. Although grammar is not the focal point of this course, review occurs when necessary. Students make several presentations involving a variety of themes and films. The course is designed to solidify students' previous training in Spanish so that they can speak, read, understand, and write with ease.

Prerequisite: grade of C+ or better in Spanish 343 or equivalent.

SPANISH 355 (AT Spanish Language)

Grade 12

4 periods per week, 1 credit

The rigorous Advanced Topics course in Spanish Language is equivalent to a third year (fifth or sixth semester) college course in advanced Spanish composition and conversation. It is intended for highly motivated and talented students who strive for proficiency in all four language skills: listening, speaking, reading, and writing. Electronic media sources in audio and print formats, as well as news broadcasts, film, and literature, stimulate extemporaneous conversations, debates, presentations, and essay topics. A portfolio project serves as the culminating course assessment.

Prerequisites: grade of B or better in Spanish 344 or equivalent, and teacher recommendation

SPANISH 355 (AT Spanish Literature)

Grade 12

4 periods per week, 1 credit

This rigorous Advanced Topics course introduces students to major works of prose, poetry, and drama by Spanish and Latin American writers. It is equivalent to a third year (fifth or sixth semester) college course. This course combines the reading and discussion of selected literary works with the performance of dramas,

the viewing of feature films, and the creation of dynamic class projects. The study and appreciation of the literature is enhanced and enriched by explorations into the visual art and architecture of the literary time periods studied. A portfolio project serves as the culminating course assessment.

Prerequisites: Spanish 344, strong interest in literature, and teacher recommendation

Mandarin

MANDARIN 313

Grades 9 through 12

4 periods per week, 1 credit

This course is intended for students with little or no previous knowledge of Mandarin. Students are introduced to basic pronunciation and tones through vocabulary, useful expressions, and structures that facilitate communication. They learn both the pinyin system and simplified characters. At the end of the course, students will have mastered 150 characters. The course emphasizes all four language skills.

MANDARIN 323

Grades 9 through 12

4 periods per week, 1 credit

Mandarin 323 is open to students who have successfully completed Mandarin 313, upon which it builds. Students continue work on pronunciation, expand their vocabulary and understanding of sentence structure, engage in simple conversations, and continue to strive to master Chinese writing. At the end of the course, students will have mastered 280 characters. The course emphasizes all four language skills.

Prerequisites: Mandarin 313 (C or better) or equivalent, and teacher recommendation

MANDARIN 334 (honors)

Grades 9 through 12

4 periods per week, 1 credit

In Honors Mandarin 334, which builds on Mandarin 323, students work toward mastery of pronunciation and Chinese writing, develop their vocabulary and knowledge of syntax, and expand the range and fluency of their conversations. By the end of the course they will have mastered 400 words. The course emphasizes all four language skills.

Prerequisites: Mandarin 323 (C+ or better) or

equivalent, and teacher recommendation

MANDARIN 343

Grades 11 and 12

4 periods per week, 1 credit

Mandarin 343 is intended for those who have successfully completed Mandarin 333. In this fourth year of study, instruction prepares students to use the language in real life situations. The quest for proficiency is accomplished through the study of literary works and authentic materials that convey relevant content and cultural values. At the end of the course, students will have mastered 450 words.

Prerequisite: Mandarin 333 (C+ or better) or equivalent, and teacher recommendation

MANDARIN 344 (honors)

Grades 11 and 12

4 periods per week, 1 credit

Mandarin 344 emphasizes the study of grammatical structures and the modern idiomatic usage of Mandarin in both oral practice and written composition. Engagement with literary works and authentic cultural materials helps students move toward oral and written proficiency. By course's end, students will have mastered 500 words.

Prerequisites: Mandarin 334 (B- or better) or equivalent, and teacher recommendation

MANDARIN 355

Grades 11 and 12

4 periods per week, 1 credit

The rigorous Advanced Topics course in Mandarin is equivalent to a third year (fifth or sixth semester) college course in advanced Mandarin composition and conversation. It is intended for highly motivated and talented students who strive for proficiency in all four language skills: listening, speaking, reading, and writing. Radio and television broadcasts, films, electronic and print media, and literary selections stimulate extemporaneous conversations, class discussion, debates, and presentations. Students write informal reflections on current events topics and multi-paragraph persuasive essays on literary, cultural, social and human interest topics. A portfolio project serves as the culminating course assessment.

Prerequisites: Mandarin 344 (B or better) or equivalent, and teacher recommendation

WORLD LANGUAGE ELECTIVE

INTRODUCTION TO LINGUISTICS

Grades 10 through 12

4 periods per week, half year, ½ credit

Introduction to Linguistics is an interdisciplinary elective course that gives students an opportunity to make connections across languages and engage in scientific inquiry about human language in general. Linguistics is an exciting field of study, which combines elements of natural science, social science and humanities.

Through readings, class discussions, problem-solving and in-class lab sessions, students will discover rules that govern phenomena in both familiar and unfamiliar languages. Students will learn to apply the scientific method to the study of language, and will be able to think and write critically and solve problems related to the study of language. Students will be able to appreciate the social implications of language, how languages change over time, and the scientific importance of all the world's languages and dialects. Students will design and carry out a project on a topic of interest, through either an analysis of language phenomena, or an application of linguistics to solve a real-world problem.

SPECIAL PROGRAM OPPORTUNITIES

BOARD OF COOPERATIVE EDUCATIONAL SERVICES

Located next to Westchester Community College, the Mid-Westchester Center for Occupational Education supplements and enriches high school programs by offering vocational courses that carry three to four credits per year toward graduation from the student's home school. All credits earned at BOCES appear on the student's Scarsdale High School transcript. The center's offerings include:

- Air conditioning/Refrigeration
- Automotive Technology
- Commercial Art
- Computer Information Systems
- Construction Trades
- Cosmetology
- Culinary Arts
- Emergency Services Technician
- Fashion Design and Merchandising
- Nursing
- Pre-Engineering
- Television/Video Production
- Veterinary Science

BOCES also provides alternatives to regular high school programs, including Alternative High School and the TASC (formerly GED) program. Additional information regarding these programs is available from the deans.

LEARNING RESOURCE CENTER

STUDY METHODS

Grades 9 through 12

4 periods per week, ½ credit

The Learning Resource Center provides support to students who have been classified by the Committee on Special Education. Small group instruction strengthens participants' reading, analytical, writing, math, test-taking, note-taking, organizational, and study skills.

CIVIC EDUCATION PROGRAM

Civic Education is a community-building program for ninth graders. Team taught by English and social studies teachers and a dean, it helps students develop the planning, communication, and interpersonal skills necessary to build and sustain a supportive community.

Civ Ed students participate in regular ninth grade social studies and English classes. They earn an additional half credit for participating in a weekly community meeting and in Civ Ed advisory groups that are led by well-trained upperclassmen under the supervision of the Civ Ed staff. Civ Ed students participate fully in the high school's science, math, world language, and elective courses.

LIBRARY

The library offers an inviting and rich environment with areas and resources to accommodate individual and group learning. Within the two-tiered space, there is an open area for collaborative work, study carrels for independent work, quiet rooms for independent and small-group study, and two computer labs. Desktop computers are available on the first floor, and Chromebooks are available on both levels. The print and electronic collections are extensive and support both curricular and extracurricular endeavors. The library's website provides access within and outside of the building to databases, periodicals, the online catalog, and more. Research project guides, with curated resources, are developed for classes, and citation guides are also provided.

The librarians teach classes on research methods, collaborate with teachers to develop projects, and provide guidance and assistance to help students work with greater independ-

ence and skill. Individual research help is available anytime, and students are encouraged to stop by or make an appointment.

The library is open every school day from 7:30 a.m. until one hour after the last class of the day.

OUTLOOK

Students who are interested in video production, computers, and electronic equipment are encouraged to consider participating in Outlook, a service organization directed by the supervisor of technical services. Outlook students attend weekly meetings, participate in the setup and repair of audio-visual and computer equipment, and videotape sports events, special activities, meetings, and interviews, many of which are broadcast on cable television. Participants in Outlook are eligible to earn a half credit (pass/fail).

SCARSDALE ALTERNATIVE SCHOOL

The Scarsdale Alternative School (SAS) was created as an experimental satellite of Scarsdale High School to respond to the following educational challenges:

- to create a community in which students and teachers increasingly learn to work together toward agreed-upon goals
- to establish a workable, democratic school governance system
- to make the school less isolated from, and more responsive to, the larger community
- to emphasize community and cooperation while recognizing that individual needs and differences within the community should be

appreciated

- to create a relaxed and informal, yet purposeful and honest, school atmosphere
- to increase students' freedom and responsibility in pursuing their own education
- to heighten students' and teachers' awareness of and attention to process in the school without sacrificing product and content
- to maintain the high level of academic achievement and excellence for which Scarsdale is known

Scarsdale Alternative School is open to sophomores, juniors, and seniors and is part of Scarsdale High School. The program also maintains a separate building on the high school grounds, where both informal and weekly community meetings take place. SAS students and teachers also make use of some classrooms and offices at Scarsdale High School. As members of a school within a school, SAS students and teachers may take advantage of the extensive resources of the high school, including its gym and playing fields, laboratories, media center, library, computers, music rooms, auditorium, and theater, while also having their own separate "place" that is so necessary to foster a sense of community. Weekly core group meetings often take place in homes in the community.

SAS is a college preparatory school made up of students from a representative cross section of the larger high school's student body. All of our students go on to four-year colleges or universities. We offer courses typically taken in high school: English, social studies, mathematics, and science. All SAS students take courses at the high school, most notably in those subjects not usually offered at SAS, such as world languages, college-level sciences, and the visual and performing arts. In addition, SAS students participate in student government, various clubs, drama productions, publications, athletics, and other extracurricular activities offered at Scarsdale High School.

Scheduling constraints caused by the small size of SAS may be an issue for some students who wish to participate in the program. For example, students with multiple skills-level

courses or specific course concentration interests, such as Science Research or multiple world languages, are advised that their individual needs might be addressed more effectively through the regular high school programs. The deans discuss these issues with interested students during course planning.

The annual January Internship Program facilitates month-long internships in which SAS students work with law firms, businesses, nonprofits, schools, design studios, arts organizations, medical and physical therapy practices, veterinary hospitals, media organizations, and government agencies. Over the years, most SAS students have interned locally or in the New York metropolitan area, but several have arranged to work in such places as California, Israel, Spain, Taiwan, or Texas.

Very important to an understanding of the philosophy of SAS is the emphasis on communication and participation. Each SAS student is assigned a core group teacher, who serves as an advisor and resource person and meets regularly with the student to discuss academic and personal concerns. At weekly Community Meetings, students and teachers address social and academic concerns and collaborate to make decisions regarding all areas of school life, from discipline to curriculum. SAS strongly believes that students need experience in working cooperatively in formal and informal situations so that they may learn how to meet responsibilities as citizens in their school and local community and, ultimately, in their country and the world.

The purpose of evaluation at SAS is to allow individuals and groups to assess their strengths and weaknesses so that they can improve their ability to succeed in accomplishing common objectives. A student's performance is assessed by both student and teacher. The transcript, which consists of teacher evaluation and a personal statement written by the student, is the student's permanent record of performance, along with the grades received in classes taken in the main school.

Students interested in SAS should speak to their dean or a teacher at the Scarsdale Alternative School. Informational meetings are held at SAS early in the second semester, at which time students may make application to the school. If the number of applicants exceeds

the number of available spaces, selection is made by lottery.

