

Program of Studies

2022-23/5783



ROCHELLE ZELL
JEWISH
HIGH SCHOOL
תיכון רושל זל



November 2022 / Cheshvan 5783

Dear Parents and Students,

Welcome to Rochelle Zell Jewish High School. This Program of Studies is designed to provide an overview of the academic policies and course offerings of our school. The content will assist you as you design your educational plan for this and for coming school years. We are fully prepared to assist you with your plans.

Rochelle Zell Jewish High School offers many opportunities for you to grow as a student, as a person, and as a Jew. We look forward to working with you on your journey.

Tony Frank
Head of School

Jason Loeb
Academic Dean

Table of Contents

| | |
|--|----|
| Rochelle Zell Jewish High School Mission and Core Values | 2 |
| Graduation Requirements | 3 |
| Grading and Credit System | 3 |
| Homework and Assessments..... | 6 |
| Course Offerings 2022-2023 (5783) | 8 |
| English Department | 10 |
| Arts & Electives | 13 |
| Jewish Studies Department | 15 |
| Mathematics Department | 18 |
| Modern Language Department..... | 21 |
| Physical Education Department..... | 24 |
| Science Department | 25 |
| Social Science Department | 27 |

Mission and Core Values

MISSION STATEMENT

Rochelle Zell Jewish High School creates a culture of academic excellence that inspires and prepares our students to think critically, achieve their full potential, and live Judaism as responsible and involved citizens in the modern world.

CORE VALUES

Rochelle Zell Jewish High School

- Creates a culture of academic excellence that fosters critical thinking.
- Inspires a reverence for and critical understanding of Torah.
- Empowers students to find their own voices in a respectful community.
- Integrates the wisdom and values of our heritage with the sciences, humanities and arts.
- Cultivates a commitment to living Judaism in the modern world.
- Shapes responsible and involved citizens who are dedicated to Tzedek and Chesed (acts of justice and compassion).
- Fosters loving and thoughtful engagement with Israel.

Statement of Support for Israel

The creation of the State of Israel is one of the seminal events in Jewish history. Recognizing the significance of the State and its national institutions, we seek to instill in our students an attachment to the State of Israel and its people as well as a sense of responsibility for their welfare.

Statement of Non-Discrimination

Rochelle Zell Jewish High School admits students of any race, color, nationality, sexual orientation, gender identity, or ethnic origin and grants them the rights, and offers them privileges, programs, and activities generally accorded or made available to all students at the school. It does not discriminate on the basis of race, color, nationality, sexual identity, gender identity, or ethnic origin in the administration of its educational policies, admission policies, scholarship and loan programs, and athletics or other school administered programs. Guidelines of the Conservative Movement are observed.

Compliance Statement

In accordance with local, state, and federal law, Rochelle Zell Jewish High School maintains compliance with all local, state, and federal statutes.

Graduation Requirements

Graduation Requirements

Credits needed for graduation are as follows:

| Subject | Semester Credits |
|------------------------------------|------------------|
| Bible | 7 |
| English | 8 |
| Hebrew Language | 8 |
| Mathematics | 6 |
| Science | 6 |
| History/Social Sciences | 8 |
| Physical Education/Health | 4 |
| Arts & Electives** | 3 |
| Jewish Thought | 2 |
| Talmud..... | 7 |
| <hr/> | |
| Total credits for graduation | 59* |

**Transfer students may have fewer graduation credits.*

***Each A&E course receives one-half credit per semester.*

All students are required to enroll in Hebrew and Jewish Studies courses each semester of attendance. Students are also required to attend *Tefillah* during each semester of attendance. Instruction in all classes is given in English and Hebrew (where applicable).

Grading and Credit System

GPA will be calculated at the end of each semester. Juniors and seniors will receive unofficial transcripts containing their cumulative grade-point averages.

Grading and Credit System

| Letter Grade | Score | GPA | Letter Grade | Score | GPA |
|--------------|----------|-----|--------------|--------------------|-----|
| A | = 93-100 | 4.0 | D- | = 60-62 | .7 |
| A- | = 90-92 | 3.7 | F | = Below 60 | 0 |
| B+ | = 87-89 | 3.3 | P | = Pass | |
| B | = 83-86 | 3.0 | I | = Incomplete | |
| B- | = 80-82 | 2.7 | W | = Withdraw | |
| C+ | = 77-79 | 2.3 | WP | = Withdraw Passing | |
| C | = 73-76 | 2.0 | WF | = Withdraw Failing | |
| C- | = 70-72 | 1.7 | AUD | = | |
| D+ | = 67-69 | 1.3 | X | = | |
| D | = 63-66 | 1.0 | R | = | |

The following courses will receive a letter grade but will not be computed in the semester grade point average:

- Physical Education
- Health
- Arts & Electives classes

Pre-High School Credits

No Rochelle Zell credits or grades are assigned to courses completed before students begin 9th grade, nor do they count toward fulfilling Rochelle Zell graduation requirements. No grades are assigned to these courses. Credits do not count towards fulfilling graduation requirements.

Credits - Summer School

Students must complete the appropriate form and obtain prior approval from the Academic Dean for summer school courses in order to receive credit. Forms are available from the Registrar. In order to receive Rochelle Zell credit, summer courses must be taken at an accredited school. Courses taken during summer school will be listed with courses from the following school year. For example, if a student takes a course during the summer between 9th and 10th grade, the course would appear on the transcript at the beginning of the 10th grade courses.

- Summer school credits are assigned based on Rochelle Zell's credit system.
- Summer school courses will be computed into the student's cumulative GPA.
- Summer school credits may be used to fulfill graduation requirements.

Credits - Courses taken outside of Rochelle Zell

In order to receive credit for a course taken through distance learning, such as a correspondence course, or at another accredited institution, a student must complete the appropriate form requesting permission from the Academic Dean. Forms are available from the Registrar.

- Credits are assigned based on Rochelle Zell's credit system.
- Grades are computed into the cumulative GPA using the transferring institution's grade scale.
- Credits may fulfill graduation requirements.

SEMESTER GRADES

The school year is divided into two semesters. Courses are either one semester or two semesters in length. Report cards are issued upon completion of each semester. The report card indicates a letter grade representing the student's academic achievement in class for that semester. Semester grades will appear on official high school transcripts. Final exam grades will not be recorded on official transcripts but are computed into semester grades.

GRADE-POINT AVERAGE (GPA)

GPA will be calculated at the end of each semester. Juniors and seniors will receive unofficial transcripts containing their cumulative grade-point averages.

APPEALING A FINAL COURSE GRADE

When students have a question regarding a final course grade, they must first discuss their concern with their teacher. If the matter is not resolved, they need to contact the department chair. If no resolution is reached, the Academic Dean will work with all parties to resolve the matter.

PASSING GRADE FOR REQUIRED COURSES

Students must successfully complete all courses that are required for graduation. The passing grade is a D-. Students who do not pass a course must make up the course prior to graduation.

REQUESTING PASS/FAIL FOR REQUIRED COURSES

Requests to take a course for a Pass/Fail grade rather than a letter grade may be considered and granted only under extenuating circumstances and with permission from the Academic Dean.

INCOMPLETE GRADE

Regarding a grade of IN (incomplete) in the first semester, students have through the end of Week 10 of the following semester to make up the work and receive a grade. Students receiving a grade of IN for a second semester course have until the first day of class in August of the next school year to make up the work and receive a grade.

GRADE REPLACEMENT/REPEATED COURSES

If a student repeats a course, only the higher of the two grades earned is reported and calculated into the GPA. That grade is labeled "R" for a repeated course. Students may repeat only those courses for which the original grade was C or below. Prior approval of both the Department Chair and the Academic Dean is required.

WITHDRAWALS

If the Department Chair determines that a student has been placed in a class inappropriately, the student will be permitted to withdraw from the class until the end of Week 10 of the semester without incurring a grade penalty during the semester of the withdrawal. The student will receive a grade of W (withdrawn).

DROPPING A COURSE OR CHANGING A COURSE LEVEL

Students may drop or change a course level through the end of Week 10 of the first or second semester. Second semester transfer students may drop a course or change a course level through the end of Week 10. In all cases, in order to drop or change a class, students must submit a Course Drop/Change Request Form to the Academic Dean. The student's parent/guardian, teacher, and department chair must first sign the form.

ONLINE COURSEWORK AND INDEPENDENT STUDY

In certain situations, online coursework and/or independent study coursework may be necessary and/or appropriate for credit replacement, credit recovery, or for resolving a schedule conflict with an existing Rochelle Zell course, or for enrichment credit.

Students may take online coursework only under the following circumstances:

- Recovery of credit from a high school course in which the student earned a failing grade.
- Replacement of a grade from a high school course in which the student earned a grade lower than C-.
- Resolving a schedule conflict with another Rochelle Zell course.

Students who elect to take an online course for any reason must receive approval from the Academic Dean. Note: Students who wish to take an enrichment independent study may pursue only one independent study course per semester.

STUDENT SERVICE PLANS

Students with documented learning needs will receive reasonable accommodations as provided by Rochelle Zell. The transcripts of these students will not disclose that accommodations or services are being provided.

POLICY ISSUES

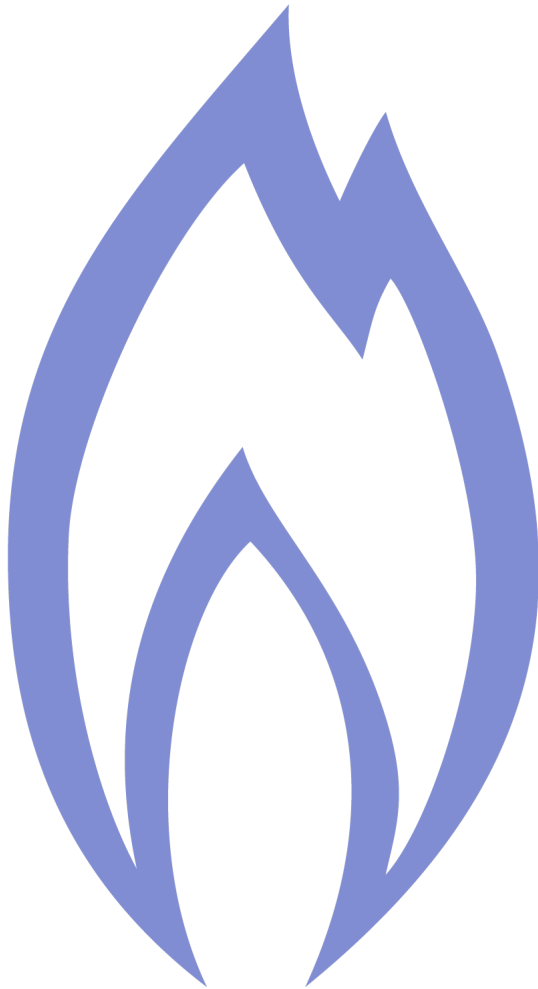
Questions regarding educational policy or graduation requirements should be directed to the Academic Dean. Questions regarding transcripts should be directed to the Registrar.

Homework and Assessments

The Rochelle Zell faculty understands that students have rigorous academic schedules and demanding homework expectations. The faculty works together to coordinate exam schedules and homework assignments in an effort to allow students to handle their workloads. Assistance and guidance in time management and study skills are provided throughout the year by students' advisors and other professionals. Please note the following:

- Homework/Quizzes/Projects Prior to Exams (HD or TQPE)
One week before semester exams there will be no homework due (HD) or tests/quizzes/project/exams (TQPE) due for any class.
- Semester Exams/Advanced Placement Exams
Semester exams take place at the end of January for the fall semester and in June for the spring semester. AP exams are administered over a two-week period during the month of May. These are national exams and cannot be rescheduled unless unusually extenuating circumstances exist. This decision is made at the discretion of the College Board.
- Second Semester Exam Policy for Seniors
Seniors will be exempt from second semester exams in any course for which they have a grade of C or better. Students must be notified that they will need to take a final exam at least two weeks before graduation.

Students are assigned both short-term and long-term homework. Students are expected to submit all homework by the stated deadline. Teachers have varying policies regarding acceptance of late assignments.



Course Offerings

ENGLISH

- 101 Literature and Composition I
- 101H Honors Literature and Composition I
- 202 Literature and Composition II
- 202H Honors Literature and Composition II
- 303 American Literature
- 303H Honors American Literature
- 404 World Literature
- 404AP Advanced Placement World Literature

ARTS & ELECTIVES

- 107 Journalism and Publications
- 111 Studio Arts
- 118 Model United Nations
- 119 Debate
- 122 Intro to Computer Science I
- 124 Intro to Computer Science II
- 125AP AP Computer Science
- 130 From Nand to Tetris
- 135 STEAM
- 136 Performing Arts

JEWISH STUDIES/BIBLE

- 1001 9th Grade Bible: Nevi'im Rishonim
- 1002 9th Grade Bible: Nevi'im Rishonim
- 1003 9th Grade Bible: Nevi'im Rishonim
- 2001 10th Grade Bible: Torah and Beyond
- 2002 10th Grade Bible: Torah and Beyond
- 2003 10th Grade Bible: Torah and Beyond
- 3001 11th Grade Bible: Breshit
- 3002 11th Grade Bible: Breshit
- 3003 11th Grade Bible: Breshit
- 4001 12th Grade Bible: 5 Megillot
- 4002 12th Grade Bible: 5 Megillot
- 4003 12th Grade Bible: 5 Megillot

JEWISH THOUGHT/BIBLE

- 401 Religious Quest for Meaning /Modern Jewish Thought (CP)
- 402 Religious Quest for Meaning /Modern Jewish Thought (H)

JEWISH STUDIES/TALMUD

- 1001 9th Grade Talmud: Foundations and Meanings
- 1002 9th Grade Talmud: Foundations and Meanings
- 1003 9th Grade Talmud: Foundations and Meanings
- 2001 10th Grade Talmud: Foundations and Meanings
- 2002 10th Grade Talmud: Foundations and Meanings
- 2003 10th Grade Talmud: Foundations and Meanings
- 3001 11th Grade Talmud: Crafting a Just Society
- 3002 11th Grade Talmud: Crafting a Just Society
- 3003 11th Grade Talmud: Crafting a Just Society
- 411 Rabbinics Seminar Elective I
- 411 Rabbinics Seminar Elective 2
- 411 Rabbinics Seminar Elective 3

MATHEMATICS

- 131 Algebra I
- 232 Geometry
- 232H Honors Geometry
- 330 Algebra II
- 331 Algebra II/Trigonometry
- 331H Honors Algebra II/Trigonometry
- 333 Pre-Calculus
- 333H Honors Pre-Calculus
- 335 Trigonometry/Statistics
- 336 Calculus/Statistics
- 432AP Advanced Placement Calculus AB
- 433AP Advanced Placement Calculus BC
- 538AP Advanced Placement Statistics Advance Topics
- 533 Multivariable/Linear Algebra

Course Offerings

MODERN LANGUAGE

- 111 Hebrew I
- 112 Hebrew II
- 211 Hebrew III
- 311 Hebrew IV
- 411 Hebrew V
- 511 Hebrew VI
- 611 Hebrew VII
- 711 Hebrew VIII
- 811 Hebrew IX
- 123 Spanish I
- 223 Spanish II
- 323 Spanish III
- 423 Spanish IV
- 423AP Advanced Placement Spanish IV

PHYSICAL EDUCATION

- 210 Health
- 111 Physical Education: 9
- 211 Physical Education: 10
- 311 Physical Education: 11
- 411 Physical Education: 12

SCIENCE

- 141 Biology
- 242 Chemistry
- 242H Honors Chemistry
- 340 Engineering Physics
- 343 Physics
- 343H Honors Physics
- 441AP Advanced Placement Biology
- 442AP Advanced Placement Chemistry
- 444 Anatomy and Physiology

SOCIAL SCIENCES

- 121 Global Studies 1-2
- 121H Honors Global Studies 1-2
- 215 Global Studies 3 (1 semester)
- 215H Honors Global Studies 3 (1 semester)
- 216 Jewish History (1 semester)
- 216H Honors Jewish History (1 semester)
- 312 United States History
- 312AP Advanced Placement United States History
- 404 12th Grade: History of Israel (1 semester)
- 416AP Advanced Placement Microeconomics (1 semester)
- 450 Psychology
- 450AP Advanced Placement Psychology (1 semester)

100 Level = Freshman
200 Level = Sophomore
300 Level = Junior
400 Level = Senior

English Department

Freshman Literature and Composition (ENG_101)

College Preparatory English introduces students to literary analysis with a variety of classical and contemporary fiction, drama, poetry, and non-fiction texts. In this course, students examine elements of dignity, the ways in which violations of dignity lead to conflict, and how resolutions of those violations generate healing. Classroom activities include close-reading textual analysis, full-class discussion, dramatic interpretation, and group interaction. Students will be expected to derive meaning from and thoughtfully articulate questions and opinions about characterizations and themes in a text; reflect upon complex themes related to the inherent dignity of individuals; and write clear, logical, expressive, analytical, and unique personal responses to literature.

Texts include *The Absolutely True Diary of a Part Time Indian*, *The House on Mango Street*, *Romeo and Juliet*, and *The Emperor is Divine*.

Freshman Honors Literature and Composition (ENG_101H)

This course focuses on teaching students to unpack the meanings of challenging texts, including but not limited to the classics. It will focus on pairing classic texts with the contemporary stories of our present. Students become familiar with the ideas, characters, themes, and plots of these works of literature and explore connections to their own journeys as beginning high school students. They develop their critical reading and thinking skills, annotation, and writing, equipping them to approach additional texts in their further studies with confidence and expertise.

Students demonstrate understanding through close reading, annotation, class discussion, projects, and writing essays of literary analysis. Students are taught to share insightful, text-supported interpretation of a literary work. Their understanding of literature is evaluated for their choices of interpretation borne out by the text, their sensitivity to language and character, and their development of themes, motifs, and connection to our modern society. Students will have the opportunity to connect to our current society through short stories, poetry, nonfiction texts, and multi-media platforms. The students will learn to write with focus, clarity, insight, organization, sentence structure, and a developing sense of voice.

Texts will include *The House on Mango Street* by Sandra Cisneros, *Lord of the Flies* by William Golding, *The Nickel Boys* by Colson Whitehead, and *Romeo and Juliet* by William Shakespeare.

Sophomore Literature and Composition (ENG_202)

This course builds on the foundation of reading and writing skills of the Freshman CP class. Students will deep dive into the writing process, focusing on clarity, argument, structure, and style. In this course, we explore the value of rethinking and unlearning to bring nuance to challenging conversations and to appreciate the discomfort of doubt over the comfort of conviction in order to fortify belief. Students examine these themes with a variety of fiction, non-fiction, poetry, and short stories, performing close-reading and revealing their thinking through annotations, group interactions, and full class discussions. The course culminates in a research project that displays their ability to rethink in a topic of their choice.

Texts include *Long Way Down*, *Fahrenheit 451*, and *Othello*.

Sophomore Honors Literature and Composition (ENG_202H)

This course intensifies the skills of literary analysis, writing, and critical thinking worked with freshman year. Challenging texts focus on the concept of rethinking and reframing in texts, and in the students' individual lives. Class activities include close reading and annotation, discussion, teaching portions of a text, connecting texts to our modern society, and analytical writing. Texts will also be supported with supplemental material such as short stories, poetry, artwork, and additional multi-media platforms. Students are evaluated for their comprehension of text, analytic understanding of a text, research skills, proper sentence structure, and their writer's voice. This course will culminate in a research project centered around rethinking and reframing based on student choice text.

Texts will include *Fahrenheit 451* by Ray Bradbury, *The Joy Luck Club* by Amy Tan, and *Macbeth* by William Shakespeare.

American Literature (ENG_303)

This course focuses on American literature of the 19th and 20th centuries in order to acquaint students with the key authors and thinkers of the period. The literature includes essays, novels, short stories, and poetry. Students consider the contributions of selected texts to the definition of the American Dream and, more broadly, the impact of literature on the American culture.

Students develop the ability to read and interpret text independently, to express their ideas orally and in writing, and to relate their personal experience to the text. In order to meet these objectives, students engage in class discussions and write in a variety of modes to develop their ability to focus their ideas thoughtfully, organize them effectively, and express themselves in a clear voice. Skills learned in previous years are continually practiced, including annotation, critical thinking, themework, and text analysis. The texts will be supported with additional supplemental materials such as short stories, poetry, nonfiction pieces, artwork, and multi-media platforms.

Texts will include *Ella Minnow Pea* by John Dunn, *The Great Gatsby* by F. Scott Fitzgerald, *Kindred* by Octavia Butler, and *Just Mercy* by Bryan Stevenson.

Honors American Literature (ENG_303H)

This course focuses on American literature of the nineteenth and twentieth centuries. Its purpose is several fold: 1) to acquaint students with several seminal texts and writers; 2) to appreciate the insights rendered by the texts into the issues of American culture-at-large; 3) to employ the texts in reflecting upon the student's personal experience and identity; 4) to sharpen the critical thinking skills necessary for comprehending sophisticated literary texts.

The purposes of the course are pursued through close reading of text, class discussion, and writing assignments. The student writing is critiqued for insightful and well-reasoned thought, clear focus and organization of that thought, well-wrought sentences, proper grammar and usage, and an emerging sense of voice and style.

Writers and major texts include Nathaniel Hawthorne, *The Scarlet Letter*; Ralph Waldo Emerson, *Self-Reliance*; Henry David Thoreau, *On Civil Disobedience*; Emily Dickinson; Walt Whitman, *Leaves of Grass*; F. Scott Fitzgerald, *The Great Gatsby*; Wallace Stevens; Robert Frost; Reinhold Niebuhr, selections from *The Nature and Destiny of Man*; Martin Luther King, Jr., *Letter from Birmingham Jail*; Annie Dillard, *Teaching a Stone to Talk*; Saul Bellow, *Seize the Day*; Philip Roth, *American Pastoral*.

World Literature (ENG_404)

This course in world literature of the twentieth and twenty-first centuries has students consider the components of a culture revealed in literature and to compare and contrast experiences in other cultures to their own. Special attention is paid to embracing the student's Jewish identity. The students are introduced to a number of modern and classic authors.

Students are encouraged to read independently, while pairing their reading with read-alouds in class to be used in discussion, instilling in them the commitment to lifetime reading. Their writing experiences hone critical thinking and reading analytic skills as well as their ability to reflect meaningfully upon their own experiences. Focusing an idea clearly, developing a discussion adequately, connecting to the text thoughtfully and analytically, organizing ideas effectively and efficiently, employing mature sentence structure, and editing for grammatical and usage errors are rehearsed in all writing assignments. Texts in this class will be supplemented with additional supplemental materials such as short stories, poetry, nonfiction pieces, artwork, and multi-media platforms.

Texts will include *Life of Pi* by Yann Martel, *Homegoing* by Yaa Gyasi, *Julius Caesar* by William Shakespeare, and *The Handmaid's Tale* by Margaret Atwood.

Advanced Placement World Literature (ENG_404AP)

This course prepares students to perform successfully on the Advanced Placement Literature & Composition exam while at the same time emphasizing literature's role in the students' reflection upon their own and others' experiences. Portions of this course call upon students to create a dialogue between the secular literature of this curriculum and their readings in Modern Jewish Thought. For that reason all students enrolled in AP English are also enrolled in the honors section of Modern Jewish Thought.

The attention paid to rhetorical devices and stylistic elements of prose, poetry, and drama prepare students for the multiple-choice section of the exam that addresses specific instances of these literary elements. Writing assignments during the course prepare students for the essay portion of the exam, which includes explications of prose and poetry passages and an essay topic related to a text studied in class.

The purposes of the course are pursued through close reading of text, class discussion, and writing assignments. The student writing is critiqued for insightful and well-reasoned thought, clear focus and organization of that thought, well-wrought sentences, proper grammar and usage, and an emerging sense of voice and style.

Writers and major texts include Fyodor Dostoyevsky, *The Brothers Karamazov*; Peter Shaffer, *Equus*; Shakespeare, *Hamlet*; Leo Tolstoy, *Confession and The Death of Ivan Ilych*; Albert Camus, *The Fall*; Cormac McCarthy, either *The Crossing* or *The Road* and *Sunset Limited*; poetry of T. S. Eliot, Richard Wilbur, Adrienne Rich, Wallace Stevens, Stanley Kunitz, W. B. Yeats, William Stafford, Elizabeth Bishop, W. H. Auden.

Arts & Electives

Journalism and Publications (AE_107)

This combined journalism course will produce two different publications: the annual RZJHS yearbook (The Roar) and several editions of the school newspaper (The Stripe). Students will learn and develop a wide range of skills, including journalism research and writing, basic journalistic ethics, photojournalism techniques, page layout and design, image editing, and larger-scale project management. Students will receive training in our primary software platforms with our various publications.

In the spring semester, our class produces a Tribute Book in which families and local businesses share messages of congratulations to the graduating seniors and to the school. This second project is an opportunity to develop business skills including marketing, database management, and client relations.

Studio Art (AE_111)

Studio Art is designed to embrace both students who have always been interested in art and students who would like to awaken their creativity. Students are encouraged to work individually on each project, whether it be painting, mosaics, drawing, photography, or collage. The idea of self-expression and doing art as a meditative process is encouraged. Depending on the assignments, there is an added dimension of art history incorporated in class. Each semester there is a student art exhibit in the Chicago area. Artwork is always displayed at our school.

Model United Nations (AE_118)

Model UN informs students about diplomacy and international relations, as well as teach speaking, negotiating, and writing skills. Model UN students have the opportunity to travel with staff to New York for the Model UN Conference, attended by over 2,000 students representing nations throughout the world.

Debate (AE_119)

This course offers an introduction to formal debate and places an emphasis on skill building, public speaking and engagement with classmates. In Debate, students learn about formal debate competition and engage in various forms of debate including Congressional Debate and Lincoln-Douglas. In addition, students work on the skills necessary to be a successful debater. Students work to improve their research skills, argumentative writing, public speaking and leadership skills. Debate topics span a wide variety of issues, focusing on topics that interest our student body as well as current events and other important topics of the day.

Class time is spent researching topics, writing speeches and developing skills that are applicable to our lives outside of the classroom. Students will both debate each other and work in teams throughout the year, building valuable relationships as the year continues.

Introduction to Computer Science Part I (AE_122)

This course offers an introduction to computer science. The course is designed for students with no prior experience in the field. Using a blended learning environment, students work at their own pace through an online course with teacher and teaching-assistant support in a classroom environment. Students learn the basics of both computer science and computer programming, using Python as the primary language. General CS topics include big data, algorithms, cybersecurity, and game development. Coding units focus on input & output, number calculations, making decisions using conditional statements, repetition with loops, and graphics. The course emphasizes computational thinking and helps develop the ability to solve complex problems. The course is the first of a two-course sequence that provides a foundation in the tools used in computer science and prepares students for further study in this area, including AP Computer Science A and From Nand to Tetris.

Introduction to Computer Science Part II (AE_124)

This course is the second of a two-course sequence designed to introduce students to computer science. Using a blended learning environment, students work at their own pace through an online course with teacher and teaching-assistant support in a classroom environment. Students will continue to learn the basics of both computer science and computer programming, using Python as the primary language. Coding units focus on for loops, text & string processing, subprograms, arrays, searching and sorting algorithms, and the Internet. General CS topics include modeling and simulation, text compression, and encryption. The course emphasizes computational thinking and helps develop the ability to solve complex problems. Combined with Introduction to Computer Science Part I, the course provides a foundation in the tools used in computer science and prepares students for further study in this area, including AP Computer Science A and From Nand to Tetris. Introduction to Computer Science Part I is a prerequisite for this course.

AP Computer Science A (AE_125AP)

In this course, students continue their study of computer science focusing on fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. Throughout the course, students will write programs in Java as they complete the AP Computer Science A curriculum and prepare for the AP Exam in May. Introduction to Computer Science Parts I and II are prerequisites for this course.

From Nand to Tetris Parts I and II (FA_130/FA_131)

From Nand to Tetris is a two-part project-centered course that allows students to construct a modern, full-scale computer system- hardware and software- from the ground up. In the process, students practice many major computer science (CS) abstractions studied in typical CS courses and make them concrete through 12 guided implementation projects. Part I of the course focuses on building the computer's hardware platform. Part II of the course focuses on building a modern software hierarchy, designed to enable the translation and execution of object-based, high-level languages on a bare-bone computer hardware platform. AP Computer Science A is a prerequisite for this course. The course may be completed over one or two years.

STEAM Innovation Studio I STEAM II Advanced Engineering Seminar (AE_135)

This course offers a set of Science, Technology, Engineering, Art, and Math challenges in a student-centered, choice-driven environment. Students progress at their own pace, working alone or with others. Challenges are based in topics like 3D design and printing, robotics, architecture, virtual reality, animation and more. Students with previous experience in STEAM, engineering design, and /or physics can enroll in the second year of the course, incorporating sensors and independent coding into their designs.

Performing Arts (AE_136)

Performing Arts Seminar includes instruction in the performing arts (dance, drama and vocal), as well as stage management and technical theater design. This course emphasizes the basic skills and techniques specific to each of these arts (basic dance technique and choreography concepts, theater artist techniques such as character creation, solo and scene performances, ensemble communication and collaboration, and text interpretation as well as a working knowledge of correct vocal technique, tone production, ear training, basic music terminology, musical symbols, and stage presence). This class will also introduce students to the foundational areas of stage management and technical theatre design, such as tool and scene shop safety, theatre geography, set design and construction, scenic painting, lighting technology, and principles of costume and makeup design. This is a hands-on course where students have the choice of performing in or working behind the scenes for the spring musical as well as a spring Showcase concert.

Jewish Studies Department

First Digit = Grade Level
Second/Third Digit = Placeholders
Fourth Digit = Student Hebrew Level
1=Emerging 2=Moderate 3=Advanced

9th grade Tanach: *Nevi'im Rishonim -- Leadership, Land, and Law* (BIB_1001, 1002, 1003)

In this Freshman year Bible class, students focus on biblical narratives following the aspirations of and challenges facing Israel as they establish themselves in the Land of Israel. The course traces the triumphs and tribulations of the emerging nation studying selections from Judges through Ezra and Nehemiah, from decentralized tribal structures through the return to the land after exile. Some of the questions considered are: What forms of leadership work? What are the limitations? What religious voices, rituals and structures are necessary? And how does the Tanach measure success?

The three main themes students consider independently and as they connect are leadership, land and law. Studies begin by focusing on the book of דברים (Deuteronomy), and the critical messages it offers the Israelites before they enter the land of Israel without Moses and God walking with them every step of the way. Students consider the message of דברים (Deuteronomy): the importance of following God's ways, keeping *mitzvot*, i.e. the law, and setting up structures on the land to enable the creation of a just and sacred society. Students consider the Deuteronomic (דברים, Deuteronomy) instructions for how to live as an independent nation in the land and the various portraits of leadership offered by דברים (Deuteronomy) and illustrated by the judges, kings and prophets of *Nevi'im Rishonim* (the books of the early Prophets).

10th grade Tanach: *Torah and Beyond -- Big Ideas in Judaism* (BIB_2001, 2002, 2003)

Jewish ideas in the Torah form the basis of Judaism. The Torah's ideas are modified, reinterpreted and/or reapplied, throughout the Tanach, Jewish history and into our lives today. The overarching big question for this 10th grade Bible class is: In what ways are the ideas found in the Torah foundational to Judaism and Jewish living today? Sophomore Bible focuses on the Tanakh's historical narrative, tracing the narrative of *Benei Yisrael* from *Eretz Mitzrayim* to the edge of Promised Land and identify the key ideas that are at the heart of that narrative, identifying what it means to live life as member of holy community. This course explores big ideas in Judaism as they emerge through the formation of *Benei Yisrael* (Israelites), tracing their exodus from Egypt, revelation and mitzvot (commandments) of Sinai and the desert, to the Jordan River, following the possibilities and challenges they face as they form. As we follow *Benei Yisrael*, we will consider the Torah's foundations for Jewish communal life.

Each unit begins with a careful reading of biblical text, exploring ideas that emerge from this text. For example, when looking at the beginning of *Shemot* (Exodus) and the emergence of *Benei Yisrael* as a people the students consider concepts of what it means to be a people, a nation in relationship with God, and notions of freedom and servitude. After reading the primary Torah text, students continue the exploration of the idea through other biblical and later rabbinic texts. Students see the persistence of these ideas throughout Jewish history, as well as their development in the minds of the rabbis and later interpreters. Students note similarities and differences between the initial articulation of the idea in the Bible and the rabbis' interpretation- or, reinterpretation- of it.

The final portion of study brings to bear contemporary thinkers. These writings help students better understand the meaning of the idea as it relates to their lives in the modern world. Once again, students note the ways in which these modern interpretations are similar to, and different from, their earlier meanings. Students also make sense of the texts and ideas considered within their own lives, reaching personal conclusions about beliefs.

11th grade Tanach: Breishit - Self, Covenant and Commentary (BIB_3001, 3002, 3003)

Self, Covenant and Commentary, our 11th grade Tanach course, focuses on the Torah's wisdom on the emergence of the Self. We will consider what it means to be human through reading foundational narratives of Torah. What does it take to become a person of integrity and to live out one's potential? What are the obstacles, challenges and contexts in which the road to individuality emerges? What are the limits and contexts of the Self? How does the journey from exile to home fit into becoming oneself?

In traditional language students consider the human from the three dimensions of relationships – אדם למקום, בין אדם לאדם, בין אדם לחברו – the relationship to oneself, the nexus between an individual and the other (friend, sibling, neighbor, stranger), and the connection between oneself and God: the introspective, social, and religious. In the course of reading grand biblical narratives through multiple interpretive approaches students gain an understanding the Torah's views on humanity as well as becoming careful readers of Torah.

By viewing the Torah within the history of its interpretation, students take their place within our commentary tradition, becoming familiar with this tradition and exploring many different forms of interpretation; they encounter many different religious points of views-- biblical, rabbinic, and multiple modern perspectives. Students sharpen their ability to read the Torah carefully to determine what the text says, and also, what the text has to say to them individually. That is, through the study of the Torah students ask themselves: What does this mean to me? Where am I in this Torah?

12th grade Tanach: 5 Megillot – Love, Laughter and Life (BIB_4001, 4002, 4003)

In this semester-long Senior Bible class, students study the five megillot (מגילות, scrolls) from the כתובים (Ketuvim) section of תנ"ך (Tanach). The five megillot – literally “scrolls” are read on specific Jewish holidays- include אסתר (*Esther*), קהלת (*Ecclesiastes*), איכה (*Lamentations*), שיר השירים (Song of Songs) and רות (*Ruth*). These scrolls are read for what they have to say to seniors on the verge of leaving home and leaving high school, as students prepare to encounter the world independently with the wisdom of your families and the Jewish tradition. These מגילות are some of the Torah's most profound and poetic sacred books, they are about meaning and about the possibilities of meaning in a life sometimes filled with chaos, about wisdom and its limits, and about the possibilities of love and friendship. We will focus on large existential questions and look for artistic and personal inspiration in these stories and poem.

These also push the boundaries of the Tanakh, each one requiring us to broaden our answer to the question: “What is תנ"ך (Tanach)?” Students focus on questions of what is the nature of the תנ"ך (Tanakh), how do we read it, and what difference does it make, as they examine these מגילות (Megillot, scrolls) within the history of their interpretation and through personal reflection and dialogue.

9th grade Talmud: Foundations and Meanings of Jewish Living (TLM_1001, 1002, 1003)

In this course, we will immerse ourselves in the Rabbinic tradition, the foundation for Judaism today. We will study the cornerstones of Jewish life throughout the year: Rosh Hashanah, Sukkot, Pesach, Shavuot, Shabbat, and Kashrut. For each topic, we will begin in Tanach, tracing the path from Biblical origins to Talmudic tradition, continuing to modern interpretations. The Talmud will be the core of our study.

As students study the emergence and development of the Talmud, they engage in personal reflection, exploring and developing their own relationships to these texts. Students think critically about the ideas presented in the texts and relate the course material to their own lives.

10th grade Talmud: Foundations and Meanings of Jewish Prayer (TLM_200, 2002, 2003)

This course is an exploration of *tefillah* (prayer), grounded in the Talmud and deeply embedded in the lives of students. Students explore a range of approaches to prayer primarily through texts found in the Talmudic tractate *Berachot* (Babylonian Talmud). Key themes include: the balance between spontaneity and routine in prayer; the development of Jewish prayer practice over time; and the necessity of *koved rosh*-- focused concentration and intention in prayer.

In addition to strengthening their תלמוד (Talmud) skills so they can become more confident and independent Talmud students, through the study of and reflection upon a range of rabbinic texts in *chevruta* (partnered learning), class discussion, and experiential learning, students deepen their knowledge of prayer as well as cultivate an understanding of their inner spiritual lives and their personal *tefillah* practices.

11th grade Talmud: Crafting a Just Society (TLM_4001, 4002, 4003)

This Junior year Talmud course focuses on the topic of social justice. Students study how the Rabbis seek to craft a just society through a system of *mitzvot* that govern human interactions. We will look at how the *mitzvot* (commandments) protect the most vulnerable in society and how the very act of building a city and its infrastructure can and should be an act of justice. As with all Talmud classes at Rochelle Zell, we will spend time building skills to read the texts in the original while simultaneously analyzing the structured rabbinic discussions of the *Mishnah* and *Gemara*. This year, students spend significant time studying the *halakhic* system (Jewish legal framework) as a whole, exploring the evolving nature of Jewish law and delving into Jewish legal texts that reinterpret the Talmud for practical everyday law. The focus on *halacha* emphasizes how seemingly obscure legal details coalesce to form a structure that can protect both individuals and communities

Rabbinics Seminars (TLM_411)

Second semester Senior year students choose from several topics in rabbinics, such as Jewish Biomedical Ethics, Midrash and Art, Gender and Judaism, or Advanced Talmudic study.

Jewish Thought

12th grade: The Religious Quest for Meaning in Modern and Contemporary Jewish Thought (JTH_401, JTH_402)

In this senior year-long course students explore the quest for religious meaning in modern and contemporary Jewish thought. Through deep, challenging readings and rich and open conversation, students gain an understanding of some central thinkers, writings and ideas of modern and contemporary Jewish thought. Students learn how to think critically and personally about the various voices within this multi-vocal tradition as they acquire language and concepts to articulate their own views on Judaism and reflect upon their own place within this tradition. Students consider questions of faith, belief, passion, religion and religiosity, science and religion, redemption, the sacred nature of relationships, and a variety of conceptions of and language for God. Students read a range of thinkers including Abraham Joshua Heschel, Martin Buber, Louis Jacobs, Rachel Adler, Joseph Soloveitchik, Judith Plaskow, and Art Green.

Mathematics Department

Algebra I (MAT_131)

An introduction to elementary algebra for students who have not yet taken the course or have yet to demonstrate facility with variables, equations, and models. By the end of the course, students should feel comfortable with algebraic equations, inequalities, and graphs in linear and quadratic contexts, as well as elementary uses of exponential, radical, and rational equations. (Subsequent sequence of courses: Geometry, Algebra II or Algebra II/Trig, Trigonometry/Statistics or Pre-Calculus).

Geometry (MAT_232)

A course in Euclidean geometry for students who have successfully completed the Algebra I curriculum. Formal proof is studied and used, but is not heavily emphasized. Topics include congruency, similarity, parallel lines, circles, polygons, transformations, areas, volumes, and coordinate geometry, as well as an introduction to right triangle trigonometry. Geometric relationships and properties are presented through manipulative tools and interactive computer explorations. Algebra is used as a transitional tool to relate geometric concepts with previously-learned material. (Subsequent sequence of courses: Algebra II or Algebra II/Trig, Trig/Statistics or Pre-Calculus, Pre-Calculus or Calculus/Statistics or AP Calculus AB).

Honors Geometry (MAT_232H)

A course in Euclidean geometry for students who have completely mastered the Algebra I curriculum. A dual focus is placed on problem solving and formal proof at a challenging level. Topics include congruency, similarity, parallel lines, circles, polygons, constructions, areas, volumes, and coordinate geometry. Students use the software Geogebra for explorations. This course is designed to develop critical thinking through analytic reasoning and an understanding and appreciation of basic geometric relationships. (Subsequent sequence of courses: Honors Algebra II/Trig or Algebra II/Trig, Honors Pre-Calc or Pre-Calc, AP Calculus BC or AB).

Algebra II (MAT_330)

A second-year algebra course for students who have completed the Geometry curriculum. Students continue the study of equations, function operations and their uses. The functions studied include linear, quadratic, polynomial, radical, exponential, logarithmic and rational. Other topics include solving systems of equations and inequalities, matrices and complex numbers. (Subsequent sequence of courses: Trigonometry and Statistics, Pre-Calculus).

Algebra II/Trigonometry (MAT_331)

A fast-paced course that combines topics of advanced algebra and trigonometry for students who have mastered the Geometry curriculum. Students continue the study of equations, function operations and their uses. The functions studied include quadratic, polynomial, radical, exponential, logarithmic, rational and trigonometric. Other topics include matrices, complex numbers, and trigonometric identities. Problem solving is emphasized throughout the year. (Subsequent sequence of courses: Pre-Calculus, Calculus/Statistics or AP Calculus AB).

Honors Algebra II/Trigonometry (MAT_331H)

A highly-rigorous, fast-paced course in advanced algebra and trigonometry for students who have mastered the Algebra I and Honors Geometry curricula. Topics include complex numbers, functions (linear, quadratic, polynomial, rational, exponential and logarithmic) and trigonometry including trigonometric functions, equations, and identities. A goal for this course is to develop students' abilities to problem solve and to clearly communicate their solutions in writing. (Subsequent sequence of courses: Honors Pre-Calculus, AP Calculus BC or AB, Multivariable Calculus/Advanced Math Topics).

Pre-Calculus (MAT_333)

A preparatory course for the study of Calculus for students who have mastered the Algebra II and Trigonometry curricula. Students study 2D and 3D vectors, conic sections, sequences and series, counting and probability, introductory limits, and algebraic and trigonometric functions with an emphasis on the integration and extension of concepts studied in previous courses. Additional topics may include using spreadsheets to analyze and model mathematics in real-life applications as well as polar coordinates and graphs. (Subsequent sequence of courses: Calculus/Statistics or AP Calculus AB).

Honors Pre-Calculus (MAT_333H)

A highly rigorous and fast paced preparatory course for the study of Calculus for students who have mastered the Honors Algebra II and Trigonometry curriculum. Students study triangle trigonometry, 2D and 3D vectors, complex numbers, matrices and linear systems, conic sections, parametric curves, polar coordinates and graphs, sequences and series, and counting and probability. Other topics include a review of functions as well as an introduction to limits. A goal for this course is to develop students' abilities to problem solve and to clearly communicate their solutions in writing. (Subsequent sequence of courses: AP Calculus BC or AB, Multivariable Calculus/Advanced Math Topics).

Trigonometry/Statistics (MAT_335)

A course for students who have completed the Algebra II curriculum. First semester, students study trigonometric functions, equations, and identities with an emphasis on explorations and modeling using manipulative tools and interactive computer explorations. Second semester, students study statistical measures of centrality and spread, methods of data collection and experiment design, binomial and normal distributions with an emphasis on statistical literacy. Students will use multiple representations to present data including written descriptions, numerical statistics, formulas, and graphs. (Subsequent sequence of courses: Pre-Calculus).

Calculus/Statistics (MAT_336)

The course is for students who have mastered the Pre-Calculus curriculum. First semester, students are introduced to the two main problems of Calculus: How to find a rate of change of a function (the derivative), accumulation (the integral), and the relationship between the two problems. First semester will prepare students to take Calculus in college. Concepts will be developed through labs and explorations. Second semester topics include statistical measures of centrality and spread, methods of data collection and experiment design, and inference. This semester will give students the basic vocabulary and statistical concepts and prepare them to take Statistics in college.

Advanced Placement Calculus AB (MAT_432AP)

A course equivalent to one semester of college calculus for students who have mastered the Pre-Calculus material. Topics studied include limits, derivatives, integrals, differential equations, approximation methods, applications and modeling. Students are prepared for taking the AP Calculus AB exam, however the exam is not a requirement of the course. Extra after-school sessions on selected Fridays are mandatory. The average time spent on out of class assignments is greater than in the CP mathematics courses in previous years.

Advanced Placement Calculus BC (MAT_433AP)

A very fast-paced course equivalent to two semesters of college calculus for students who have mastered the Honors Pre-Calculus curriculum. Topics studied include limits, derivatives, integrals, differential equations, approximation methods, infinite series, calculus of parametric and polar functions, applications and modeling. Students are prepared for taking the AP Calculus BC exam, however the exam is not a requirement of the course. Extra after school sessions on selected Fridays are mandatory. The average time spent on out of class assignments is greater than in the mathematics courses in previous years. (Subsequent sequence of courses: Multivariable Calculus/Advanced Math Topics).

Advanced Placement Statistics/Advanced Topics (MAT_538AP)

This course is an introductory college-level statistics course aligned with the AP Statistics curriculum. The course covers data analysis, data sampling, experimental design, exploring random phenomena using probability and simulation and using data to develop estimates and make predictions. The syllabus is designed so that students enrolled in this course will gain the requisite knowledge to successfully complete the AP Statistics Exam. This course features many data-oriented projects, extensive use of technology (primarily spreadsheets and/or statistical analysis software) and hands-on applications. As time permits and based on student interest, other learning areas included in this course may include selected topics from advanced calculus and/or linear algebra.

Multivariable Calculus/Linear Algebra w/Applications (MAT_533/534)

This a two-semester sequence of multivariable calculus followed by linear algebra. The multivariable calculus semester focuses on vectors, functions of several variables, curves and surfaces, differentiation and partial derivatives, multiple integrals, and line integrals. The linear algebra semester covers matrices and the algebra of linear systems. Topics includes matrix equations, vector spaces, linear transformations, determinants, eigenvalues, eigenvectors, diagonability, quadratic forms and symmetric matrices. Technology is integrated throughout.

Modern Language Department

The Modern Languages Department has two offerings, Hebrew and Spanish. The curriculum in each of the languages is a challenging, college preparatory program which has communication as its main goal. The department's standards, goals and philosophy define what students should know and be able to do in a foreign language and are infused throughout every level of the language programs.

Hebrew Overview

The Rochelle Zell Jewish High School Mission Statement states "Rochelle Zell Jewish High School students understand that Hebrew unites Jews around the world..." Our Hebrew program embraces this commitment. Our goal is to foster and develop a deep love and knowledge of the Hebrew language and Israeli culture.

Students who successfully complete the advanced level of our program will comfortably speak, understand, read and write Hebrew. They will be able to actively participate in Hebrew conversation and to understand cultural norms.

All students at Rochelle Zell Jewish High School are required to study Hebrew for each semester of enrollment. Students entering Rochelle Zell Jewish High School from Jewish Day Schools continue their study of Hebrew based on their previous success and experience. A growing number of our students come from public schools with no previous experience studying Hebrew. Those students take a placement test to determine where they will begin the study of Hebrew at Rochelle Zell Jewish High School.

Students engage in a wide range of genres: prose, poetry, songs, prayers, news, formal academic language and slang. Our teaching integrates all four language skills: reading, writing, listening and speaking. Activities are challenging, demanding and relevant to the interests of the students, their prior training and intellectual abilities.

Our curriculum consists of four proficiency levels and nine courses. Students begin at the appropriate level and gradually move through the curricular sequence progressing from the simple to the complex and from passive knowledge to independent active use of the language.

In order to engage students in a positive and meaningful way, classroom activities include paired work, group work, student presentations, questions and answers, games, and skits. Materials include texts, videos, movies, the Internet, newspapers, television and audio. Students also have access to a website which includes their text in both written and audio format, and various activities. This enables students with diverse learning styles to more easily access the material.

Hebrew I (ML_111) / Hebrew II (ML_112) (Beginners)

These courses engage students as they begin their study of the Hebrew language. Students master the Hebrew aleph bet and the ability to read Hebrew in print and in cursive. Students use all four language skills, listening comprehension, speaking, reading and writing. They listen to and comprehend short dialogues about daily life, present short monologues and dialogues relating to their personal experiences, read informative and descriptive paragraphs, and write paragraphs on personal topics. They acquire the basic grammatical structures and vocabulary necessary to complete these tasks. Students begin to explore Jewish and Israeli culture.

Hebrew III (ML_211) / Hebrew IV (ML_311) / Hebrew V (ML_411) (Advanced Beginners)

In these courses students continue to develop their basic language skills. They increase their knowledge of active vocabulary, and the material that they read and write develops in both length and complexity. Students read short selections, comprehend short conversations and narratives and express their opinions orally and in writing. In addition, they continue to learn more advanced grammatical structures. All of their materials add to their knowledge of Jewish and Israeli history and culture.

Hebrew VI (ML_511) / Hebrew VII (ML_611) (Intermediate)

Students in intermediate Hebrew classes can engage in conversations on a variety of topics. They read fiction and nonfiction and prepare oral and video presentations. In addition, they write descriptions of their personal lives and analyses of events. They listen to and understand recorded conversations of increased length and react in a more analytical manner using richer vocabulary and more sophisticated grammar. Students continue to acquire knowledge about Israeli culture and contemporary society.

Hebrew VIII (ML_711) / Hebrew IX (ML_811) (Advanced)

Students at the advanced levels of Hebrew are engaged in more independent work and read and converse about topics involving higher level thinking skills. In addition, they write multiple paragraph compositions concerning a wide variety of abstract ideas. At these levels students read novels and poetry, and listen to and understand songs which have both historical and cultural importance. These students read, understand and analyze original articles in Israeli newspapers. All classroom materials increase in both length and complexity. Students make presentations individually and in pairs in fluent and contemporary Hebrew. The highest Hebrew level also includes the study of Israeli cinema.

Spanish I (ML_123) *No prerequisite*

This course introduces beginners to the Spanish language. During the first year of study, students master the fundamentals of pronunciation, vocabulary and grammar, which are essential for understanding, speaking, reading and writing. Students improve their skills by engaging in paired and group activities. In addition, students discover aspects of the culture of Spain and Latin America through a variety of classroom activities and projects. Though the emphasis of the course is on understanding and speaking, students also read appropriate materials and write short compositions. The class is increasingly conducted in Spanish.

Spanish II (ML_223)

Prerequisite: Spanish I or its equivalent

During the second year of Spanish language study, students further develop their listening, speaking, reading and writing skills as they explore more complex language tasks. Students increase their knowledge of vocabulary and grammatical structures. They continue to read more complex material and to write short essays. They also add to their knowledge of the culture of the Spanish-speaking world. Students present short reports, skits and conversations in class. Spanish is the language spoken in class.

Spanish III (ML_323)

Prerequisite: Spanish II or its equivalent

The students in third year Spanish review and integrate their knowledge of Spanish. They focus on acquiring knowledge of complex grammatical constructions and advanced vocabulary. Emphasis is placed on reading Spanish texts, enhancing writing skills and perfecting oral expression in the target language. Students continue to learn about the culture of Spanish-speaking people. They give presentations and complete projects in Spanish in an environment in which only Spanish is spoken.

Spanish IV (ML_423) / Advanced Placement Spanish (ML_423AP)

Prerequisite: Spanish III or its equivalent

In this course, students use a variety of materials to improve their four language skills: understanding, speaking, reading and writing. Class materials include newspaper and magazine articles, short stories, plays, essays and videos. Their speaking, presentations and essays continue to develop in length, complexity and accuracy. Students write journal entries and complete listening comprehension activities weekly. Students enrolled in AP become familiar with the format of the Spanish language AP exam and the content and skills necessary to successfully complete the exam. In addition, they complete practice exams. This includes a continued study of complex grammatical structures and vocabulary. The course is conducted entirely in Spanish.

Physical Education Department

Physical Education (All Grade Levels)

To be eligible to graduate from Rochelle Zell Jewish High School, students are required to successfully complete four years of physical education. Students will be required to take summer school to complete any physical education course not completed during the school year. Physical education classes meet twice weekly. With the approval of the Academic Dean and Athletic Director, students may substitute approved, supervised, regularly scheduled, outside activities for their physical education course requirement. In addition, students on sanctioned Rochelle Zell Jewish High School athletic teams are excused from PE class for the duration of the IHSA athletic season. Health and Wellness education are also part of the physical education curriculum.

Gym shoes and athletic wear is required dress for physical education classes.

Students are permitted two non-physician excused absences from physical education classes per semester. Please note this type of excused absence would include anytime a student is not properly dressed for class. Even if students have a medical excuse from participating or do not have appropriate clothes, they are still expected to attend the class. Students unable to participate in regular physical education classes, for any length of time, must submit a doctor's note with an explanation of the injury/illness and the length of time they must refrain from participating.

Health and Wellness (PE_210)

The Health and Wellness program is an essential part of each student's daily life. All students take a physical education class each semester or they participate in an IHSA sport, a club sport, or an approved independent study. Rochelle Zell Jewish High School has 8 different sports and 16 different teams from which students can choose. Our mission is that a well-rounded education focuses on the body, mind, and soul. Both men and women have opportunities to participate in IHSA sanctioned sports and attend tournaments throughout the United States.

Also, sophomores participate in a health and wellness program that focuses on topics such as drug education, sex education, CPR, nutrition, and hygiene. The Health and Wellness program seeks to imbue life-long healthy living habits and enhance students' well-being, and complies with stringent Illinois state standards.

Science Department

Biology (SCI_141)

This typically freshman course focus on cellular structure and function, biochemistry, theories of evolution, structure and functions of one-celled organisms and complex plants and animals (including man), molecular biology and genetics. Students are required to work with abstract and conceptual topics. Experimental design and research, the scientific process, scientific writing skills, and current biological issues are emphasized.

Chemistry (SCI_242)

Prerequisite: Successful completion of Algebra I or equivalent

This college preparatory tenth grade course focus on measurement, classification of matter, the mole and stoichiometry, gas laws, atomic structure and the periodic table, radioactivity and nuclear chemistry, bonding, acids and bases and introductory organic chemistry. The course is hands-on involving numerous lab activities including spectroscopy and titrations. A graphing calculator is required.

Honors Chemistry (SCI_242H)

Prerequisite: Successful completion of Geometry and teacher recommendation

This college preparatory tenth grade course focus on topics listed in SCI 242 and also includes phase changes, thermochemistry, thermodynamics, kinetics and equilibrium. In addition, there are more experiments and laboratory write-ups than in SCI 242. A graphing calculator is required.

Engineering Physics (SCI_340)

Prerequisite: No math prerequisite

This 11th grade conceptual physics course is designed for students enrolled in Algebra II 330, and it is geared towards students who are hardworking, creative, and have a strong interest in how the world works. Through hands-on activities, building projects, and informal laboratory work, students will study the fundamental principles governing mechanical forces and torques, momentum and energy conservation laws, simple machines, thermodynamics, electricity and practical electronics, and programming operations for Arduino. The year culminates in students wiring, designing, programming, and assembling an electronic invention/device of their own choosing. This course may be taken by interested 12th graders in the 2018-2019 academic year.

College Prep Physics (SCI_343)

Prerequisite: Concurrent enrollment in Algebra II/Trig (MAT 331) or higher. Previous knowledge of trigonometry is highly recommended

This 11th grade CP physics course is designed for students enrolled in Algebra II/Trig 331 and Precalculus 333; it is geared towards students who are interested, organized, and enjoy engaging with moderately demanding material. Through hands-on activities and informal laboratory work, students will study the fundamental principles governing mechanical forces, the laws of motion, momentum, energy, universal gravitation and planetary motion, waves, light, sound, electricity, and magnetism, as well as an introduction to modern physics. Physics 343 focuses more on experimentalism than Physics 343H, spending as much time on laboratory analysis and conceptual projects as on mathematical problem-solving.

Honors Physics (SCI_343H)

Prerequisite: Completion of Honors Algebra II/Trig (MAT 331H) or the equivalent preparatory work in trigonometry with teacher recommendation

This honors physics course is geared towards mathematically advanced Precalculus students interested in possibly pursuing studies in science or engineering. Through mathematical problem-solving and formal laboratory write-ups, students will study the fundamental principles governing the laws of motion in one and two dimensions, mechanical forces, momentum, energy, electromagnetism, waves, light, and sound, as well as modern physics and the basic principles of quantum mechanics. This course may be taken either in 11th or 12th grade, and is structured to provide the necessary background material for AP Physics C or the equivalent two college physics courses.

Advanced Placement Biology (SCI_441AP)

Prerequisite: Successful completion of Biology (SCI 141) and teacher recommendation

This is a challenging senior level science elective, which covers the following topics: evolution, the cell, biochemistry, biotechnology, molecular biology and the immune system. Students gain practical application of the principles of biology by completing extensive laboratory experiments and working on projects throughout the year. The projects also help to expand their understanding of biological issues that could impact their lives. This course prepares the student to sit for the AP Biology exam in May, which may entitle the student to receive college credit

Advanced Placement Chemistry (SCI_442AP)

Prerequisite: Successful completion of Honors Chemistry (SCI 242H) and teacher recommendation

This course may be taken either during 11th or 12th grade and is designed to cover an entire year of college chemistry. Following the AP curriculum, the course studies advanced topics in atomic theory, periodic trends, chemical bonding, gas laws, liquids and solids, solutions, chemical reactions including oxidation-reduction, electrochemistry, stoichiometry, equilibrium, acid-base chemistry, hydrolysis and buffers, kinetics and thermodynamics. An extensive laboratory program is presented using specialized equipment such as pH meters and spectrometers. This course prepares the student to sit for the AP Chemistry exam in May which may entitle the student to receive college credit.

Anatomy and Physiology (SCI_444)

This is a senior level laboratory-based course in the structure and function of the human body and methods of maintaining homeostasis. Body systems covered will include; integumentary, skeletal, muscular, cardiovascular, nervous, digestive, and excretory. Lab study is enhanced by the use of preserved organs, interactive computer programs, and a cat dissection.

Advanced Placement Physics - Calculus (SCI_445AP)

Prerequisite: Honors Physics and concurrent enrollment in Calculus or above, with teacher recommendation.

This is AP Physics C: Mechanics, a 12th grade calculus-based course designed to cover a single semester of college physics for science and engineering majors. Following the AP curriculum, the course explores relativity, kinematics, Newton's laws, conservation laws in energy, momentum, and angular momentum, systems at equilibrium, universal gravitation, introductory fluid dynamics, and oscillatory motion, as well as a unit on special and general relativity and an introduction to computational physics methods in Excel. This course prepares students to sit for the AP Physics C: Mechanics exam administered by the Advanced Placement Program in May. Success on this examination may entitle the student to college credit.

Social Science Department

Global Studies 1-2 (SSC_121)

This survey course introduces students to the several major geographical regions of the earth, to the several basic economic systems in human history, culminating in globalization; to the evolution of different philosophical, political, and legal systems (e.g., monarchies, republics, democracies); and to different cultural values of various societies and their positive and negative intracultural and intercultural relationships.

The course comprises approximately fifteen smaller units defined in terms of particular historical eras, civilizations, cultures, and empires, ranging from the earliest to the contemporary. The primary text is *Global History and Geography: the Growth of Civilizations*, 2nd ed., by Brun, Forman, and Brodsky. Supplementary reading is drawn from *Ways of the World: a Global History*, by Robert W. Strayer and the McDougal Littell text, *World History: Perspectives on the Past*, 5th ed. among others.

Students are guided in their comprehension of the texts, in their disciplined note-taking, in their critical thinking fostered by classroom discussion, the analysis of primary sources, and writing assignments.

Honors Global Studies 1-2 (SSC_121H)

This course sequences exposes students to a variety of techniques of historical analysis and nurtures an appreciation of the numerous endeavors of human communities across time and space. While pursuing the course content within a chronological framework, students grapple with the following essential questions: What factors contribute to change and what factors contribute to continuity over time? How does geography impact the development of societies? Why and how have political, economic, and social structures evolved? How do human beings shape the stories of history? By the completion of the course students have a more sophisticated and nuanced understanding of the historical factors contributing to the modern world.

The course sequence is divided into units of 3-4 weeks in length focusing on the following historical periods: the Paleolithic Era; the Neolithic Era; the Birth of Civilization; the Classical Era; the Post-Classical Era; the Early Modern Era; the Industrial Era; and the Present Age.

Attention is paid to all of the major geographical regions of the earth.

Course assignments primarily revolve around reading the primary text *Ways of the World* by Robert Strayer. The teacher supplements the textbook with other readings and guides interactive discussion of the course material, enabling students to solidify their understanding, express their knowledge orally, and relate meaningfully to historical concepts.

Analytical and evaluative writing skills, geographical knowledge and other higher order critical thinking skills are assessed regularly. Students are also exposed to higher-level accessibility of information through powerpoints, discussions, and high-level readings.

Civics (SSC_214), Honors Civics (SSC_214H)

First semester sophomore course

This course is a required course for sophomores and focuses on the United States government. This course focuses on the foundations of the United States government and U.S. Constitution. The course examines the functions of the United States government and how it operates, with a close focus on each of the three branches of government.

The course examines diverse perceptions on citizenship and what Americans claim to be “civic duty.” The course also explores current events that impact the political sphere in the United States and makes connections to the curriculum. Attention will be devoted to honing students’ reading and analytical skills, persuasive writing and critical thinking skills. Pacing of the honors course is accelerated, and the grading standards are more rigorous than the College Prep course.

Course readings revolve around an online textbook that will be provided for students, as well as frequent primary source analysis. In class, students engage in class discussions, debates, projects, assessments and simulations to provide an opportunity for all learners to be successful.

Jewish History (SSC_216), Honors Jewish History (SSC_216H)

Second semester sophomore course

Jewish History is a required fourth semester course for all sophomores at Rochelle Zell Jewish High School, offered at both the CP and Honors levels. In many ways, the course seeks to live up to the core mission of the school by studying Jewish History in a way that fosters academic critical thinking, reading, and writing, while empowering each individual student to engage with the Jewish past in a meaningful and personal manner. As with all history courses at Rochelle Zell Jewish High School, this course offers the past as a lens and a framework for understanding the present. Students who are developing their identities and setting in place key personality traits that will be with them for the rest of their lives benefit tremendously from knowing about their Jewish heritage and from the ability to compare and contrast their own experiences with those of countless generations. After completing Jewish History at Rochelle Zell Jewish High School, each student not only can trace the basic outlines of the Jewish story but can also appreciate and apply aspects of that story to his or her own personal life.

United States History (SSC_312)

This course is designed to cover the most important topics of American history beginning with the early native populations and their interactions with European explorers and ending in the middle era. This course on United States history is designed to give students the proper background knowledge required to understand the developments that took place and led America to become the country that it is today. Students will analyze the different political beliefs and motives held by the people and politicians in different eras. Students will engage in analysis of the U.S. Constitution and its influence on America’s evolution. By examining the policies enacted by statesmen as well as the public response, students will be able to better understand the values of the era in question as well as draw comparisons to the current laws and policies in practice today.

The purposes of this course are pursued through close readings of the textbook, primary sources from the Founding Fathers, class discussion, written examinations, writing assignments, and oral presentations. In all oral presentations and written work, the student is critiqued for well-reasoned and well-documented responses and insights.

The major text for the course is *United States History* by Emma Lapansky-Werner, Randy Roberts, Peter Levy, and Alan Taylor.

Advanced Placement United States History (SSC_312AP)

This course, covering U.S. history from colonial times to the present, prepares students for the Advanced Placement U.S. History exam administered in May. Attention is devoted to developing students’ reading and writing skills as assessed on the exam, including thesis formulation; analysis, evaluation, and synthesis of evidence; skills of comparison and contrast; and tracing both continuity and change in history.

Course assignments revolve primarily around reading the primary text for AP: *America’s History*, 8th ed., Henretta/Hinderaker/Edwards/Self. The teacher supplements the primary text and guides interactive discussion of course

material, enabling students to solidify their understanding, express their knowledge orally, and relate meaningfully to historical concepts. Assessments typically reflect portions of the Advanced Placement exam: multiple choice questions, free response essay questions, short answer, and document-based essay questions.

History of Israel (SSC_404)

First semester senior course

History of Israel gives students an overview of the history of Israel for the past 100 years, beginning with the Balfour Declaration and concluding with events of contemporary discourse. The class focuses on reading primary documents and cultivating the critical thinking skills that are the focus of all Social Studies classes at RZJHS. Students partake in the full process of writing a research paper, producing a unique final assessment with original research on a topic of their choice.

In addition to solidifying literacy about significant dates and historical chronology, this course challenges students' beliefs. It exposes students to new ideas and narratives they may have never considered before. This course also engages directly with their knowledge and experiences in previous courses, including Contemporary Israel, Jewish History and Global Studies.

Advanced Placement Microeconomics (SSC_416AP)

Second semester senior elective course

This course focuses on the microeconomic principles covered on the Advancement Placement examination. Students are introduced to topics including benefit/cost analysis, the market system, perfect and imperfect competition, factor markets, and market failure.

While traditional forms of instruction including reading, lecture, and discussion will be used, the course engages heavily in real world applications and the use of simulations to truly connect theory and practice.

Krugman's *Economics for AP* is the primary textbook for this course. Supplemental readings from both well known economists and current events will also be used to guide understanding and connections.

As the study of economics is best understood through multiple lenses, this variety of experiences and sources will benefit students in this course far beyond their time in the classrooms of RZJHS.

Psychology (SSC_450), Advanced Placement Psychology (SSC_450AP)

Second semester senior elective course

This one-semester course introduces students to the scientific study of human behavior from a psychological perspective and to its relevance to everyday life; defines research methods used by psychologists and their ethical implications; compares major psychological perspectives in the history of the discipline; and develops critical thinking skills.

The several units of study include 1) social psychology; 2) history of the development of psychology; 3) research methods; 4) neuroscience and behavior; 5) sensation and perception; 6) learning theory; 7) memory; 8) thinking and language; 9) testing and intelligence; 10) motivation and emotion; 11) developmental stages in a lifespan; 12) personality; and 13) abnormal behavior.

Additional units of study at the Advanced Placement level include 1) consciousness and its variations; 2) stress, health, and coping; and 3) therapies. Assignments and assessments, as well as content, are differentiated for the two levels. Extra class sessions are held for those students preparing for the AP exam in order to familiarize students with the format of the exam.



1095 Lake Cook Road | Deerfield IL 60015 | 847-470-6700 | www.rzjhs.org