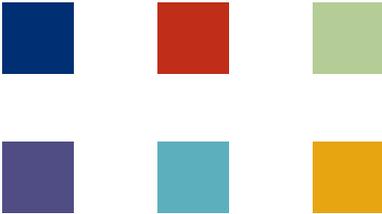




Curriculum
Guide
2022-2023



**Meeting students
where they are, and taking
them beyond where they
imagined possible.**



CHESHIRE
ACADEMY

1794

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The Academic Program

The Academic Vision

Cheshire Academy students grow increasingly capable of independently observing, questioning, explaining, interpreting, and analyzing the world. Our academic process begins with what students know and want to know and develops active learners who reflect on their growth and the implications of their learning.

Our academic vision is the Academy’s mission statement in action. We believe all students are unique, with their own academic interests, styles, and needs. We also believe in helping students become rationally autonomous. And while we strive to pass on knowledge, skills, and values—including those that will help students find college and career paths—we also are keen to ensure students have an active role and voice in their learning and take ownership over creating work which reflects their passions and their evolving world views.

Graduation Requirements

The requirements listed below are minimums. In general, it is work done beyond them that qualifies a student for acceptance to colleges. Students are required to take a minimum of five credits for letter grades per semester. The basic requirements, completed from the start of the student’s 9th-grade year, are as follows:

- 4 credits of English, including both semesters of the senior or postgraduate year
- 4 credits in mathematics, including both semesters of the senior and postgraduate year
- 3 credits in history or social science
- 2 credits in lab sciences

- 2 credits in foreign languages (must reflect second year proficiency in one language)
- 1 credit in fine or performing arts
- 3-4 elective credits
- Successful completion of three seasons of the afternoon program (athletics, arts, service) each year
- 9th and 10th graders must complete one semester of a grade-cohorted seminar
- Seniors and postgraduates must complete a senior declamation

A minimum of 20 academic credits are required for graduation; of these credits, five must be earned in the senior year, including one in English and one in math. The Academic Office must approve credits not earned at Cheshire Academy and submitted for graduation requirements. In addition, seniors and postgraduates must pass all courses, both semester and yearlong, in order to qualify for either a diploma or certificate.

Any student whose work is incomplete in a course at the end of the year will be deemed to have finished the course in question with a failing grade and will receive no credit for that course. A senior or postgraduate who fails a course required for graduation will receive his/her diploma upon successful completion of an online, or other course, at the student’s expense, which has been approved by the Academic Office.

Grade Point Average Scale

Grade Point Averages are based on all academic credits earned at Cheshire Academy.

A+	4.33	100-97.0	B+	3.33	89.9-87.0	C+	2.33	79.9-77.0	D+	1.33	69.9-67.0	P	Pass
A	4.00	96.9-93.0	B	3.00	86.9-83.0	C	2.00	76.9-73.0	D	1.00	66.9-63.0	INC	Incomplete
A-	3.67	92.9-90.0	B-	2.67	82.9-80.0	C-	1.67	72.9-70.0	D-	0.67	62.9-60.0	WD	Withdrawn
									F	0.00	59.9-0		

Report Cards and Comments

Cheshire Academy's academic year is divided into two semesters. Grades and comments are reported by the faculty to the Academic Office at the end of each semester. Report cards are available through the My Cheshire portal as soon as all grades are recorded and verified, and averages are determined.

Academic Honors

An academic honor roll is published after each semester for students who have attained first or second honors. Students earn first honors by recording a GPA of at least 3.67 (A-) with no grade below a 3.0 (B). Students earn second honors by recording a GPA of at least 3.33 (B+) with no grade below 2.33 (C+). A student receiving an "Incomplete" in any course at the end of the semester will not be eligible for academic honors unless the incomplete was due to illness or extenuating circumstances and is approved by the Academic Office.

Roxbury Academic Support Program

The Roxbury Academic Support Program aims to develop proactive, knowledgeable, and independent learners who take responsibility for their education and academic success. To achieve this goal, we utilize our signature, research-based academic coaching model. The model includes five core components:

1. executive functioning skill building
2. learning strategy instruction
3. one-on-one student-instructor sessions
4. collaborative goal setting, assessment, and progress monitoring
5. ongoing communication between and among families, teachers, Roxbury instructors, and students

Sessions are designed to help students discover and master tools and strategies that allow them to capitalize on their strengths, support areas of challenge, and become more productive learners. Strategies are applied to the academic work in the student's classes ensuring that sessions are meaningful and relevant.

We offer multiple levels of one-to-one service to provide the most appropriate guidance, systems, and attention each student needs. Placement in one of the levels is determined on a case-by-case basis and we involve a team of adults, led by the Roxbury staff, that includes Admissions and Health Services. Consideration of placement is also given based on the requests of parents, teachers, and administrators.

Postgraduate Course of Study Certificate Requirements

The full course of study for the Postgraduate Certificate includes a minimum of five classes per semester for a total of at least 10 credits. Required courses include College English, Global Issues, the Postgraduate Seminar, and a mathematics course. Postgraduate students then complete their choice of classes for the year from the following subject areas:

- An appropriately leveled science course is strongly recommended
- A fine and performing arts elective
- A history or social science elective

Postgraduate students are required to participate in two seasons of afternoon activities and must complete a senior declamation. Postgraduate students must pass all courses, both semester and yearlong, to qualify for a certificate.

The International Baccalaureate®

Diploma Programme

Cheshire Academy became an IB World School in 2011. Recognized as the leader in international education, the International Baccalaureate® (IB) Diploma Programme cultivates the knowledge, skills, and attitudes that enable students to excel at the university level. The Academy adopted the IB because it is truly student-centered, interdisciplinary, and multi-modal in its learning experience, and because the philosophy and pedagogical approaches behind it fit perfectly with the Academy's mission. Cheshire Academy has successfully integrated IB into our existing ethos, with an emphasis on providing each student the exact right level of challenge with the exact right level of support.

Students at Cheshire Academy may choose to pursue the full IB Diploma or, as most students do, take some IB courses based on their own interests and the level of challenge they find appropriate. While placement in higher level (HL) IB courses is by department chair approval only, standard level (SL) IB courses are accessible, meaning all students at Cheshire Academy can succeed in them. The more IB courses students take, the more interdisciplinary connections they experience.

Through the full IB Diploma Programme, students gain rigorous and balanced academic preparation, an ability to draw on knowledge and understanding of various cultures and histories, and the experience of learning how to think critically and apply what they have learned in different contexts and across disciplines.

The IB Diploma Programme understands that success in higher education and beyond involves thinking critically and creatively. The challenging curriculum educates the whole student, developing the capacity for inquiry, research, and problem solving, as well as essential skills for communication and collaboration.

What is the Diploma Programme?

The IB Diploma Programme is an academically challenging and balanced program of education that prepares students in grades 11 and 12 for success at the university level and life beyond. It has been designed to address the intellectual, social, emotional, and physical well-being of students. The Programme has gained recognition and respect from the world's leading universities.

The Diploma Programme prepares students for effective participation in a rapidly evolving and increasingly global society as they:

- develop physically, intellectually, emotionally, and ethically
- acquire breadth and depth of knowledge, and understanding, studying courses from six subject groups
- develop the skills and a positive attitude toward learning that will prepare them for higher education
- study at least two languages and increase understanding of cultures, including their own
- make connections across traditional academic disciplines and explore the nature of knowledge through the program's unique Theory of Knowledge course
- undertake in-depth research into an area of interest through the lens of one or more academic disciplines in the Extended Essay
- enhance their personal and interpersonal development through creativity, action, and service

The IB Curriculum

IB Diploma Programme students must choose one subject from each of five groups (1 to 5), ensuring breadth of knowledge and understanding in their best language, additional language(s), the social sciences, the experimental sciences, and mathematics. For the sixth subject, students are strongly encouraged to choose an arts subject from group 6; however, upon departmental approval, a student may choose a second subject from groups 2 to 5. At least three—and not more than four—subjects are taken at higher level (HL), while the other subjects are taken at standard level (SL).

The Diploma Programme features three core elements that broaden students' educational experience and challenge them to apply their knowledge and skills.

- **THE EXTENDED ESSAY** asks students to engage in an independent, self-directed piece of research through an in-depth study of a question relating to one of the Diploma Programme subjects they are studying. The research culminates in a 4,000-word paper.
- **THEORY OF KNOWLEDGE** develops a coherent approach to learning that unifies the academic disciplines. In this course on critical thinking, students inquire into the nature of knowing and deepen their understanding of knowledge as a human construction.
- **CREATIVITY, ACTIVITY, SERVICE** involves students in a range of activities alongside their academic studies throughout the Diploma Programme. Creativity encourages students to engage in the arts and creative thinking. Activity seeks to develop a healthy lifestyle through physical activity. Service with the community offers a vehicle for a new learning with academic value.

Assessment

Students take written examinations at the end of the Programme, which are marked by external IB examiners. Students also complete graded assessments at Cheshire Academy, which are either initially marked by teachers and then moderated by external moderators or sent directly to external examiners.

The marks awarded for each course range from 1 (lowest) to 7 (highest). Students can also be awarded up to three additional points for their combined results on Theory of Knowledge and the Extended Essay. The diploma is awarded to students who gain at least 24 points, subject to certain minimum levels of performance across the whole Programme and to satisfactory participation in the creativity, action, and service requirement. The highest total that a Diploma Programme student can be awarded is 45 points.

Assessment is criterion-related, which means student performance is measured against pre-specified assessment criteria based on the aims and objectives of each subject, rather than the performance of other students taking the same examinations. The range of scores that students have attained remains statistically stable, and universities value the rigor and consistency of Diploma Programme assessment practice.

Departments & Courses

Note well: All courses are offered subject to enrollment demand, staffing availability, and scheduling considerations. Not all courses are available for enrollment each year.

ENGLISH

ENG 100-ELL: Intermediate Writing, Composition, & Expression
ENG 110-ELL: Proficient Writing, Composition, & Expression
ENG 200: Expressions of Identity
ENG 210: Expressions of Community
ENG 220: Expressions of Place
ENG 300: Contemporary Literature
ENG 310: Revolutionary Literature
ENG 321/322: Creative Writing
ENG 330-IB: Language & Literature SL1
ENG 330-IB: Language & Literature SL2
ENG 340-IB: Literature SL1
ENG 340-IB: Literature SL2
ENG 400-IB: Language & Literature HL1
ENG 400-IB: Language & Literature HL2
ENG 410-IB: Literature HL1
ENG 410-IB: Literature HL2
ENG 500: College English

FINE & PERFORMING ARTS

ART 201/202: Drawing
ART 211/212: Painting
ART 221/222: Ceramics
ART 231/232: Printmaking
ART 241/242: Photography
ART 251/252: Digital Imaging
ART 300-IB: Visual Arts SL1
ART 300-IB: Visual Arts SL2
ART 400-IB: Visual Arts HL1
ART 400-IB: Visual Arts HL2
ART 410: Art Major
MUS 201/202: Music Skills & Performance
MUS 211/212: Music Fundamentals
MUS 221/222: Music Production
MUS 300-IB: Music SL1
MUS 300-IB: Music SL2

MUS 400-IB: Music HL1
MUS 400-IB: Music HL2
THE 201/202: Acting & Directing
THE 211/212: Theater Production
THE 221/222: Playwriting
THE 300-IB: Theater SL1
THE 300-IB: Theater SL2
THE 400-IB: Theater HL1
THE 400-IB: Theater HL2

HISTORY & SOCIAL SCIENCE

HSS 100: American Studies
HSS 110: U.S. History on the World Stage
HSS 210: Modern World History (H)
HSS 300: Contemporary History
HSS 310: American Government & the Constitution
HSS 320: Human Psychology
HSS 331/332: Macroeconomics
HSS 341/342: Microeconomics
HSS 351/352: Philosophy
HSS 360-IB: History SL1
HSS 360-IB: History SL2
HSS 370-IB: Economics SL1
HSS 370-IB: Economics SL2
HSS 400-IB: History HL1
HSS 400-IB: History HL2
HSS 410-IB: Economics HL1
HSS 410-IB: Economics HL2
HSS 500: Global Issues

LANGUAGE

FRE 100: Novice French
FRE 200/210: Intermediate French
FRE 300-IB: French ab initio SL1
FRE 300-IB: French ab initio SL2
FRE 310-IB: French SL1
FRE 310-IB: French SL2
FRE 400-IB: French HL1

FRE 400-IB: French HL2

MAN 100/200: Novice/Intermediate Mandarin

MAN 300-IB: Mandarin ab initio SL1

MAN 300-IB: Mandarin ab initio SL2

SPA 100: Novice Spanish

SPA 200/210: Intermediate Spanish

SPA 300-IB: Spanish ab initio SL1

SPA 300-IB: Spanish ab initio SL2

SPA 310-IB: Spanish SL1

SPA 310-IB: Spanish SL2

SPA 400-IB: Spanish HL1

SPA 400-IB: Spanish HL2

MATHEMATICS & COMPUTER SCIENCE

MTH 100: Integrated Math I

MTH 200: Integrated Math II

MTH 210: Integrated Math II (A)

MTH 220: Integrated Math II (H)

MTH 300: Integrated Math III

MTH 310: Integrated Math III (A)

MTH 320: Integrated Math III (H)

MTH 330: Math Fluency

MTH 340: Data Analysis

MTH 351/352: Modeling Climate Change

MTH 360-IB: Applications & Interpretation SL1

MTH 360-IB: Applications & Interpretation SL2

MTH 370-IB: Analysis & Approaches SL1

MTH 370-IB: Analysis & Approaches SL2

MTH 400-IB: Analysis & Approaches HL1

MTH 400-IB: Analysis & Approaches HL2

MTH 410-AP: AP Statistics

MTH 420-AP: Calculus AB

CSC 300-IB: Computer Science SL1

CSC 300-IB: Computer Science SL2

CSC 311/312: Web Design

CSC 321/322: Coding

CSC 331/332: Big Data

SCIENCE

SCI 100: Integrated Science I

SCI 200: Integrated Science II

SCI 210: Integrated Science II (H)

SCI 300: Physics

SCI 311/312: Environmental Science

SCI 321/322: Biotechnology & Forensic Science

SCI 331/332: Engineering

SCI 341/342: Astronomy

SCI 350-IB: Sports, Exercise, & Health Science SL

SCI 360-IB: Biology SL1

SCI 360-IB: Biology SL2

SCI 370-IB: Chemistry SL1

SCI 370-IB: Chemistry SL2

SCI 380-IB: Physics SL1

SCI 380-IB: Physics SL2

SCI 400-IB: Biology HL1

SCI 400-IB: Biology HL2

SCI 410-IB: Chemistry HL1

SCI 410-IB: Chemistry HL2

SCI 420-IB: Physics HL1

SCI 420-IB: Physics HL2

SEMINARS & OTHER COURSES

SEM 101/102: Environment, Justice, & You

SEM 111/112: Heroes, Quests, & Rites of Passage

SEM 121/122: Lyrics, Pop Music, & Empathy

SEM 201/202: The French Connection in Connecticut

SEM 211/212: Music in Popular Culture & Society

SEM 221/222: Media & News Consumption

SEM 231/232: Understanding Human Rights

SEM 400-IB: Theory of Knowledge 1/2

SEM 500: PG Seminar

INT 301/302: The Art of Argument

ENGLISH

The English Department is the hub of critical thinking, cultural conversations, and creative writing at Cheshire Academy. From poetry to prose, from timeless classics to contemporary works, our students find meaning and create connections through the power of ideas and words. Challenging all assumptions, norms, and biases, we read diversely, converse deeply, and write passionately.

ENG 100-ELL: Intermediate Writing, Composition, & Expression

Cheshire Academy's Writing, Composition, and Expression courses offer an intensive, context-based, genre-focused sequence of study in writing for academic purposes. These courses are for students whose home/comfort language is not English.

Students enhance grammatical, mechanical, and lexical control. The course focuses on improving writing styles such as memoirs, scientific articles, short stories, analytical responses, and research papers. Students explore how academic writing presents problems, poses questions, gives feedback, and supports discussion in all disciplines. Rhetorical modes include analysis, description, chronology, process, argument, cause and effect, classification, comparison and contrast, and opinion.

All grades course

ENG 110-ELL: Proficient Writing, Composition, & Expression

Cheshire Academy's Writing, Composition, and Expression courses offer an intensive, context-based, genre-focused sequence of study in writing for academic purposes. These courses are for students whose home/comfort language is not English.

Students focus on models of academic genres in all disciplines and develop an understanding of the purpose of each genre, how each genre is organized, argumentative patterns, and specific language features of each genre. They develop tools to critique academic texts, understand conventions, link audience and purpose, and revise papers with structural accuracy, lexical and syntactic mastery, clarity, and coherence.

All grades course

ENG 200: Expressions of Identity

This course probes what it means to be human by asking questions about identity formation, the relationship between individuals and society, and the ways in which various modes of expression make and convey meaning. Who we are is, in large part, shaped by our cultural heritage, but also by the decisions we make and the person we want to be. This course explores the factors that go into making those decisions.

Students in this course read a wide range of texts—novels, plays, poems, short stories, and nonfiction—from diverse regions, time periods, voices, and perspectives. Through critical engagement with these texts, students develop their own perspectives and voices. Students discuss, write about, and present their ideas in formal academic language as well as in more personal and affirming ways.

9th/10th-grade course

ENG 210: Expressions of Community

In this course, students explore the universal themes that have fascinated writers of poetry, novels, short fiction, and drama for centuries: themes such as triumph over adversity, hope and courage, jealousy, revenge, love, friendship, loyalty, free will versus duty, war, national identity, and coming-of-age journeys. Students search for and create deeper symbolic meanings and contextualize those meanings within their own worlds.

Students encounter a range of literature from various time periods and regions of the world. Students use these texts as vehicles for the important work of close readings as well as identifying and understanding literary devices and their effect on a written work. In concert with active reading skills, students work toward clear and effective communication of their ideas in their own writing.

9th/10th-grade course

ENG 220: Expressions of Place

This course examines what it means to be shaped by the regions, homes, landscapes, and architectures that humans exist within. Students explore the reciprocal relationship between place, culture and identity formation, and literature expression. Understanding that these factors shape humans, literature, and imagination, students will question just how much interaction occurs between place, human life, and story.

Students in this course read a wide range of texts—novels, plays, poems, short stories, and nonfiction—from diverse regions, time

periods, voices, and perspectives. Through critical engagement with these texts, students develop their own perspectives and voices. Students discuss, write about, and present their ideas in formal academic language as well as in more personal and affirming ways.

9th/10th-grade course

ENG 300: Contemporary Literature

The story of the late 20th and 21st centuries is a story of increasing global connectivity with increasing social isolation, of social uprisings for inclusive freedom with the rise of authoritarianism, repressive theocracy, and international terrorism, and of massive technological progress with seemingly insurmountable climate and health crises. This course explores this story.

Through the study of diverse literature across a multitude of genres from 1950 through the present day, students in this course develop skills of critical analysis and creative response while learning to look through literary lenses that provide novel perspectives.

11th/12th-grade/postgraduate course

ENG 310: Revolutionary Literature

In this course, students discover the power that words can have to inspire and provoke change. This course challenges students to see the relationship between art and revolution, between words and action, and between literary movements and social ones.

Students read a wide range of works in this course from around the world, spanning eras and genres. Students sharpen their analysis skills by exploring several critical lenses, including new historicism and cultural studies. The course heavily emphasizes purposeful writing and speaking, putting students' words into action.

11th/12th-grade/postgraduate course

ENG 321/322: Creative Writing

Self-examination, reflection, and observation are essential to the craft of writing. The sharing of the self allows stories to impact others. The work that students produce in this course is grounded in imagination or based on personal experience.

This course immerses students in the written and spoken word, develops their writing skills, and produces a variety of work that reflects exposure to short stories, plays, poetry, memoirs,

and experimental genres. Through free-writing exercises and journaling, students articulate and explore their feelings in response to prompts that touch upon a wide range of beliefs and experiences.

All grades semester course

ENG 330-IB: Language & Literature SL1/SL2

In this course, students study language in its many forms and the cultural contexts that produce and consume it. They examine the impact that evolving cultures have on the uses of language as a means of communication within and among those cultures.

Students study nonfiction texts, including essays, speeches, journalism, and advertising, as well as novels, short stories, poetry, and drama from a wide array of regions and time periods, allowing them to closely examine the relationship between a literary text and its cultural context.

11th/12th-grade two-year course

ENG 340-IB: Literature SL1/SL2

The study of literature enables an exploration of one of the more enduring fields of human creativity, and provides opportunities for encouraging independent, original, critical, and clear thinking. It also promotes respect for the imagination and a perceptive approach to the understanding and interpretation of literary works.

Students appreciate the artistry of literature and develop an ability to reflect critically on their reading. Works are studied in their literary and cultural contexts, through close study of individual texts and passages, and by considering a range of critical approaches.

11th/12th-grade two-year course

ENG 400-IB: Language & Literature HL1/HL2

PLACEMENT IN THIS COURSE REQUIRES APPROVAL BY THE DEPARTMENT CHAIR/IB COORDINATOR

In this course, students study language in its many forms and the cultural contexts that produce and consume it. They examine the impact that evolving cultures have on the uses of language as a means of communication within and among those cultures.

Students study nonfiction texts, including essays, speeches, journalism, and advertising, as well as novels, short stories, poetry, and drama from a wide array of regions and time periods, allowing them to closely examine the relationship between a literary text and its cultural context.

11th/12th-grade two-year course

ENG 410-IB: Literature HL1/HL2

PLACEMENT IN THIS COURSE REQUIRES APPROVAL BY THE DEPARTMENT CHAIR/IB COORDINATOR

The study of literature enables an exploration of one of the more enduring fields of human creativity, and provides opportunities for encouraging independent, original, critical, and clear thinking. It also promotes respect for the imagination and a perceptive approach to the understanding and interpretation of literary works.

Students appreciate the artistry of literature and develop an ability to reflect critically on their reading. Works are studied in their literary and cultural contexts, through close study of individual texts and passages, and by considering a range of critical approaches.

11th/12th-grade two-year course

ENG 500: College English

College-level reading and writing require flexibility, open-mindedness, discernment, and a willingness to learn along the way. This course is designed around those principles, and encourages students to discover new ways of finding and making meaning.

Students plan, draft, and complete written compositions in response to readings and oral discourse. Students are expected to read critically, think analytically, and communicate clearly in both writing and speech. They respond to the readings with a variety of registers as they interpret the influences of historical and social context on literary works.

Postgraduate course

FINE & PERFORMING ARTS

The purpose of art is to discover, unearth, and enhance various ways of engaging with the world and the human experience. We do that in this department through performance and creative acts, which become the instruments of personal expression and which are meaningful in their relationship to the larger world.

ART 201/202: Drawing

This course focuses on drawing as a means of visual inquiry. Students learn to see with an artist's eye and to know what it is like to look at the world through that lens.

Students learn about gesture, contour line, positive and negative space, visual space, shadow and light, composition, and perspective. They use these methods to render still life, landscape, live model, and the self-portrait. Students manipulate pencil, ink, pastel, oil pastel, colored pencil, and charcoal to complete various projects.

All grades semester course

ART 211/212: Painting

In this course, students learn to accurately discern relationships of shape, form, color, and value, and to interpret this information through various paint media. Students discover a painting's potential as a medium of communication and creative visual expression.

Students explore various approaches to the use of watercolor, acrylic, and tempera paint. Students develop disciplined technical skills such as paint handling and application. There is no prerequisite for this class, though knowledge of how to draw is helpful.

All grades semester course

ART 221/222: Ceramics

This course is about literally making meaning. Physical sculpture, in the form of ceramics, is one of the oldest and most powerfully enduring forms of human expression there is. This course opens students' minds to the ways in which working in a physical medium can create meaning and achieve purpose.

This course consists of hand, wheel, and mold methods of construction. Students examine special handbuilding and wheel techniques, glaze and decoration methods, and firing processes. Students create both functional and decorative pieces. There is no prerequisite for this class, though knowledge of how to draw is helpful.

All grades semester course

ART 231/232: Printmaking

In this course, students are exposed to a variety of printing processes such as monoprint, lithography, transfer, woodcut, linoleum, and dry point. With these methods, students learn to mix various elements to achieve the correct viscosity of ink, to apply just the right amount of ink to whatever surface they are working on, and to master the ability of wiping a plate so as to achieve a good print without under or over-wiping.

Students use the basic elements of art and principles of design to create two-dimensional works. This course is a structured yet spontaneous environment that encourages involvement and commitment to originality and self-expression. Students are introduced to work of past and present artists who have used various printing methods to great effect as a way to inspire one's creative imagination.

All grades semester course

ART 241/242: Photography

Artists see the world differently than one another. The same thing, photographed by different people, can yield vastly different effects and meanings. This course teaches students how to develop their artistic visions and to notice the ways in which the visual elements of the world around them interact to affect our perceptions and our lives.

This course covers all of the tools and techniques a budding photographer needs and allows students the freedom to independently explore and develop their photographic vision. Compositional tools such as framing, "rule of thirds," light, texture, pattern, lines, symmetry, depth of field, distance, perspective, space, and balance are the center of projects and discussions.

All grades semester course

ART 251-252: Digital Imaging

Digital imaging is a truly 21st-century way of looking closely at the world and then representing it in terms of aesthetics and truth. In this course, students create work that reveals their spirit and vision. Students develop their own style, mode of expression, and artistic vision.

Students are introduced to digital imaging technology and software. Emphasis is placed on the production and analysis of expressive and thoughtful artwork. By exploring digital media, students develop a body of work that reflects a range of ideation and technical versatility.

All grades semester course

ART 300-IB: Visual Arts SL1/SL2

This course engages students in a wholly creative experience of the path artists embrace as a vital part of the creative process. Each student discovers the artist within and develops a body of work that is both personal and relevant to the current times in which we live.

Each student keeps their thoughts and ideas in a visual art journal, which becomes an invaluable tool in the creative process. Studio work involves practical exploration and artistic production. Investigative work involves independent contextual, visual, and critical investigation, and both visual and written reflection. As a culmination of the program, each student has a formal showing of their work.

11th/12th-grade two-year course

ART 400-IB: Visual Arts HL1/HL2

PLACEMENT IN THIS COURSE REQUIRES APPROVAL BY THE DEPARTMENT CHAIR/IB COORDINATOR

This course engages students in a wholly creative experience of the path artists embrace as a vital part of the creative process. Each student discovers the artist within and develops a body of work that is both personal and relevant to the current times in which we live.

Each student keeps their thoughts and ideas in a visual art journal, which becomes an invaluable tool in the creative process. Studio work involves practical exploration and artistic production. Investigative work involves independent contextual, visual, and critical investigation, and both visual and written reflection. As a culmination of the program, each student has a formal showing of their work.

11th/12th-grade two-year course

ART 410: Art Major

PLACEMENT IN THIS COURSE REQUIRES APPROVAL BY THE DEPARTMENT CHAIR

This honors-level course, requiring department recommendation, is where the most dedicated art students pursue their passion of making and expressing meaning through art. The artistic process is the core of this class, with an intense focus on the ways in which editing, refining, revising, and reworking pieces is the true way of not just achieving an artistic vision, but of expressing it.

This class is for students who are interested in applying to art and design programs for college, although any student with a strong interest and background in the arts would certainly feel

at home. In this course, students develop portfolios culminating with a body of work for the annual Art Major show. This work should represent each student's passion in the arts and the best of their abilities.

12th-grade course

MUS 201/202: Music Skills & Performance

The study of music is the study of craftsmanship in which students learn to appreciate the creation of good work. It is one of the best ways of developing the ability to think creatively and to use our imaginations to see the world in new ways. In this course, students improve their technique, write songs, form ensembles and, most importantly, play music.

Each student practices and rehearses music, and motivated students may choose to participate in one of the many performance opportunities available on campus throughout the year. Students may take this class more than once with a more challenging curriculum; advanced musicians can continue to study their main instrument or explore a secondary instrument.

All grades semester course

MUS 211/212: Music Fundamentals

In this course, students gain an understanding of the core fundamentals of music, including the basic elements of pitch, rhythm, notation, scale structure, tonality, intervals, chords, melody, harmony, and musical terminology and score reading. Students will apply these concepts to analyzing various examples of music, creating original music, and performing various styles of music.

The study of the fundamentals of music develops listening, creative, and analytical skills, as well as encouraging cultural understanding and international mindedness. Musical study encourages inquiry into creative practices and performance processes. In this way, music is a catalyst for the expansion of critical thinking.

All grades semester course

MUS 221/222: Music Production

This course focuses on the fundamental skills that help musicians of all levels create music of any genre, from the first stages of songwriting to the final steps of recording and production. It is a 21st-century approach, studying and creating contemporary music using various kinds of technology.

Students learn how to record and edit audio, and how to produce a final product using digital audio workstations. As a culmination to the course, each student puts together an end-of-semester album that includes several written, recorded, and produced tracks. Some familiarity with reading music and/or piano playing is recommended, but not required.

All grades semester course

MUS 300-IB: Music SL1/SL2

Informed and active musical engagement allows students to discover relationships between lived human experience and specific sound combinations and technologies, thus informing them more fully of the world around them and the nature of humanity. This course fosters curiosity and openness to both familiar and unfamiliar musical worlds.

Students learn to hear relationships of pitch in sound, pattern in rhythm, and unfolding sonic structures. At the standard level, and by recommendation, higher level, this course covers music perception, music creation, solo performance, and ensemble performance. This course provides all students with the opportunity to engage in the world of music as lifelong participants.

11th/12th-grade two-year course

MUS 400-IB: Music HL1/HL2

PLACEMENT IN THIS COURSE REQUIRES APPROVAL BY THE DEPARTMENT CHAIR/IB COORDINATOR

Informed and active musical engagement allows students to discover relationships between lived human experience and specific sound combinations and technologies, thus informing them more fully of the world around them and the nature of humanity. This course fosters curiosity and openness to both familiar and unfamiliar musical worlds.

Students learn to hear relationships of pitch in sound, pattern in rhythm, and unfolding sonic structures. At the standard level, and by recommendation, higher level, this course covers music perception, music creation, solo performance, and ensemble performance. This course provides all students with the opportunity to engage in the world of music as lifelong participants.

11th/12th-grade two-year course

THE 201/202: Acting & Directing

Studying theater helps students build confidence in public speaking and creative expression. Acting asks students to explore using their voices and bodies to portray character, plot, and emotion, while directing asks students to develop the leadership skills to coach others and enact their unique perspective of a performance. This process also relies on building trust as students create art collaboratively.

This course provides students with opportunities to develop characters, act in monologues, experiment with voice, perform scene work, and devise staged movement. Advanced students can progress to study directing methodology including how to create a directorial vision, coach actors in their process, and give feedback in supportive and productive ways. The course provides excellent preparation for the IB SL or HL Theatre class.

All grades semester course

THE 211/212: Theater Production

Theater production, the designing of each aspect of the stage environment, is essential to the creation of effective theatrical arts. Developing an eye and ear for creating stage pictures, color palettes, and soundscapes aids in layering meaning to any theatrical piece. This class allows students to apply the principles of design and visual art to a dramatic context.

In this course, students learn the fundamentals of all elements of theater production, including the study of lighting design, sound design, stage design, costuming, and more. Students demonstrate their skills by creating production elements that are utilized in the Fall Play and Winter Musical. Advanced students can take on leadership roles as lead designers. The course provides excellent preparation for the IB SL or HL Theatre class.

All grades semester course

THE 221/222: Playwriting

The creation of new material for theater performance is an evolving field, comprised of more traditional methods of scriptwriting along with the latest devising techniques. In creating original theater works, students can explore their own interests and add their voices as writers and creators to the Cheshire Academy performance repertoire.

Students immerse themselves in the creation of original theater works by writing monologues, scenes, or one-act plays, and

by crafting devised theater pieces. The class functions as a writing workshop with table readings, practice staging, and a supportive feedback and revision process. The course culminates in final products that will be used as material in other theater classes and showcased in the afternoon theater program. The course provides excellent preparation for the IB SL or HL Theatre class.

All grades semester course

THE 300-IB: Theatre SL1/SL2

This multi-faceted theater-making course emphasizes the importance of working both individually and collaboratively as part of an ensemble and offers the opportunity to engage in the creative process, transforming ideas and research into action. Students have the opportunity to experience theater as creators, designers, directors, and performers.

The syllabus comprises three interrelated areas: theater in context, theater in process, and theater presentation. Students at the standard level and, by recommendation, higher level, complete a director's notebook, chronicling ideas on the staging of a specific play; a research presentation, outlining and physically demonstrating the research into a convention of a theater tradition; and a collaborative theater project.

11th/12th-grade two-year course

THE 400-IB: Theatre HL1/HL2

PLACEMENT IN THIS COURSE REQUIRES APPROVAL BY THE DEPARTMENT CHAIR/IB COORDINATOR

This multi-faceted theater-making course emphasizes the importance of working both individually and collaboratively as part of an ensemble and offers the opportunity to engage in the creative process, transforming ideas and research into action. Students have the opportunity to experience theater as creators, designers, directors, and performers.

The syllabus comprises three interrelated areas: theater in context, theater in process, and theater presentation. Students at the standard level and, by recommendation, higher level, complete a director's notebook, chronicling ideas on the staging of a specific play; a research presentation, outlining and physically demonstrating the research into a convention of a theater tradition; and a collaborative theater project.

11th/12th-grade two-year course

HISTORY & SOCIAL SCIENCE

The History & Social Science Department is where the humanities come alive at Cheshire Academy. This is the place where we answer the deep questions about what the world is like, how it got to be this way, and how it might be different if we made it better. We start with what we know and, critically, what we THINK we know, and build to a larger understanding of the ways in which we are all connected.

HSS 100: American Studies

Connecting the past to the present is vital both as a skill and as a mindset. This course examines the story of the United States through a thematic study of the United States. Students explore themes like immigration, race relations, the role of government, international relations, competing political philosophies, and the idea of the American Dream.

Through the examination of primary and secondary sources, students enhance their knowledge and understanding of the events and people that have shaped this nation. Students develop their reading, writing, and critical thinking skills, as well as their ability to look at the world through the lens of an historian.

9th-grade course

HSS 110: U.S. History on the World Stage

Connecting the past to the present is vital both as a skill and as a mindset. This course examines the story of the United States through a thematic approach that emphasizes not only America through its own view, but also its role in a more globalized world. Students explore themes like immigration, race relations, the role of government, competing political philosophies, and the idea of the American Dream all while highlighting how America weaves its own story with countless others from around the world.

Through the examination of primary and secondary sources, students enhance their knowledge and understanding of the events and people that have shaped this nation. Students develop their reading, writing, and critical thinking skills, as well as their ability to look at the world through the lens of an historian.

9th-grade course

HSS 200: Modern World History

This course leans into history as an interpretive discipline, allowing an opportunity for engagement with multiple perspectives and opinions. Studying history develops an understanding of the past, which leads to a deeper understanding of the nature of humans and of the world today.

In this course, students survey modern world history from the High Middle Ages to the turn of the 20th century, focusing on various aspects of politics, economics, society, and culture. Students learn to identify common themes in world history, as well as to make connections from different eras and cultures. Moreover, the course strengthens analytical and interpretive skills specifically applied to source evaluation.

10th-grade course

HSS 210: Modern World History (H)

PLACEMENT IN THIS COURSE REQUIRES APPROVAL BY THE DEPARTMENT CHAIR

This course leans into history as an interpretive discipline, allowing an opportunity for engagement with multiple perspectives and opinions. Studying history develops an understanding of the past, which leads to a deeper understanding of the nature of humans and of the world today.

In this course, students survey modern world history from the High Middle Ages to the turn of the 20th century, focusing on various aspects of politics, economics, society, and culture. Students learn to identify common themes in world history, as well as to make connections from different eras and cultures. Moreover, the course strengthens analytical and interpretive skills specifically applied to source evaluation.

10th-grade course

HSS 300: Contemporary History

This course explores the notion that the past IS the present. Students explore what it means to live in a truly globalized, interconnected world, and what the implications of this are for their lives and the life of society and the planet.

Students examine the impetus to create colonial empires, the movement away from foreign rule toward independence, and the impacts to current day that nations have faced due to colonial pasts. This course asks students to look simultaneously to the past, present, and future, gaining skills as historians and social scientists.

11th/12th-grade/postgraduate course

HSS 310: American Government & the Constitution

This course opens students' minds to the ways in which abstract political concepts and theories have practical implications in our lives and in the way the world works. Students delve into questions about what it means to live in a pluralistic society, and how a system founded on the idea of equality strives and struggles to live up to that creed.

Students explore the classical foundations of the American system from Ancient Greece and Rome, the contextual debates around the substance of the Constitution, the development of the American political two-party system, the evolution of American law and justice, and broader themes of civics, rights, and the ideals and realities of American governance. This course is highly recommended for students who have not previously taken high school U.S. or American History.

11th/12th-grade/postgraduate course

HSS 320: Human Psychology

This course plumbs the depth of the human psyche. Students uncover what makes people—and themselves—tick, and they learn to analyze the world through the mind's eye.

This course provides a foundational exploration of psychology, with an emphasis on developmental psych, social cognition, personality formation, as well as topics as varied as addiction, anxiety, therapy, and trauma.

11th/12th-grade/postgraduate course

HSS 331/332: Macroeconomics

This course explores the way the world works, or at least the way capitalism and its rival economic systems make the world work. Students discover how social forces and systems operate on a grand scale to shape the lives they lead.

This course covers the behaviors of the economy as a whole, focusing on the relationships between governments, financial markets, corporations, the workforce market, the commodity market, and households.

11th/12th-grade/postgraduate semester course

HSS 341/342: Microeconomics

This course shows students the ways in which human interactions shape their economic status. This will lead students to question just how rational the choices people—themselves included—are in a system of competing incentives and disincentives.

This course covers fundamental topics including supply and demand, and uses model-based, quantitative, and qualitative methods of analysis.

11th/12th-grade/postgraduate semester course

HSS 351/352: Philosophy

This course explores the nature of thought and the questions behind how humanity got to be the way it is and how it might be made better if we were to change it. Ultimately, to study philosophy is to study the nature of being and to determine our place in the world.

In this course, students learn of the major movements and thinkers in the history of philosophy. Through reading, reflection, and discussion, students also come to form their own philosophical view and are challenged to articulate it to themselves and each other.

11th/12th-grade/postgraduate semester course

HSS 360-IB: History SL1/SL2

This course emphasizes the importance of encouraging students to think historically. It focuses on developing critical thinking and on an understanding of multiple interpretations of history. In this way, the course involves an engaging and critical exploration of the past.

This course is based on a comprehensive and multi-perspective approach to history. It involves the study of a variety of types of history, including political, economic, social, and cultural, and provides a balance of structure and flexibility. This course focuses on six key historical lenses: change, continuity, causation, consequence, significance, and perspective.

11th/12th-grade two-year course

HSS 370-IB: Economics SL1/SL2

The study of economics is essentially about dealing with scarcity, resource allocation, and the methods and processes by which choices are made in the satisfaction of human wants. This course encourages students to develop international perspectives, to foster a concern for global issues, and raises students' awareness of their own responsibilities at a local, national, and international level.

Economics uses scientific methodologies that include quantitative and qualitative elements. This course emphasizes the economic theories of microeconomics, which deal with economic variables affecting individuals, firms, and markets, and of macroeconomics, which deal with economic variables affecting countries, governments, and societies.

11th/12th-grade two-year course

HSS 400-IB: History HL1/HL2

PLACEMENT IN THIS COURSE REQUIRES APPROVAL BY THE DEPARTMENT CHAIR/IB COORDINATOR

This course emphasizes the importance of encouraging students to think historically. It focuses on developing critical thinking and on an understanding of multiple interpretations of history. In this way, the course involves an engaging and critical exploration of the past.

This course is based on a comprehensive and multi-perspective approach to history. It involves the study of a variety of types of history, including political, economic, social, and cultural, and provides a balance of structure and flexibility. This course focuses on six key historical lenses: change, continuity, causation, consequence, significance, and perspective.

11th/12th-grade two-year course

HSS 410-IB: Economics HL1/HL2

PLACEMENT IN THIS COURSE REQUIRES APPROVAL BY THE DEPARTMENT CHAIR/IB COORDINATOR

The study of economics is essentially about dealing with scarcity, resource allocation, and the methods and processes by which choices are made in the satisfaction of human wants. This course encourages students to develop international perspectives, to foster a concern for global issues, and raises students' awareness of their own responsibilities at a local, national, and international level.

Economics uses scientific methodologies that include quantitative and qualitative elements. This course emphasizes the economic theories of microeconomics, which deal with economic variables affecting individuals, firms, and markets, and of macroeconomics, which deal with economic variables affecting countries, governments, and societies.

11th/12th-grade two-year course

HSS 500: Global Issues

This course offers a range of intellectual inquiry, from history and economics to physical science, moral philosophy, and literature. At its core, this class challenges students to see the ways in which they are learning in an interconnected world which they can influence.

The overall concept of this course is to explore a series of broad contemporary issues in an interdisciplinary, unit-based manner, and features a high degree of independent investigation and group sharing. Possible units of study include climate change, global terrorism, poverty, and genetic engineering.

Postgraduate course

LANGUAGE

Language classes exist to open students' minds not only to other linguistic systems, but also to provide new ways to categorize and explain realities, view and interpret the world, and understand cultural norms. Our language classes establish floors of knowledge on which students build higher and higher structures of understanding.

FRE 100: Novice French

This language acquisition course focus on five themes: identities, experiences, human ingenuity, social organization, and sharing the planet. Students demonstrate an awareness and understanding of the intercultural elements related to the topics studied and communicate clearly and effectively in a range of situations.

Students learn the fundamental lexicon and grammar necessary to communicate through speaking, listening, reading, and writing. Students respond to visual stimuli, present orally, role play, and write emails, blogs, articles, letters, creative stories, and advertisements.

9th/10th-grade course

FRE 200/210: Intermediate French

This language acquisition course continues to focus on five themes: identities, experiences, human ingenuity, social organization, and sharing the planet. Students communicate clearly and effectively in a range of situations, demonstrate linguistic competence and intercultural understanding, use language appropriate to a range of interpersonal and cultural contexts, use language to express and to respond to a range of ideas in a clear, coherent, and convincing manner, and use written texts and works of literature written in French.

Students learn the advanced lexicon and grammar necessary to communicate through speaking, listening, reading, and writing. Students respond to visual stimuli, present orally, role play, and write emails, blogs, articles, letters, creative stories, and advertisements.

9th/10th-grade course

FRE 300-IB: French ab initio 1/2

This language acquisition course focuses on five themes: identities, experiences, human ingenuity, social organization, and sharing the planet. Students demonstrate an awareness and understanding of the intercultural elements related to the topics studied and communicate clearly and effectively in a range of situations.

Students learn the fundamental lexicon and grammar necessary to communicate through speaking, listening, reading, and writing. Students respond to visual stimuli, present orally, role play, and write emails, blogs, articles, letters, creative stories, and advertisements.

11th/12th-grade two-year course

FRE 310-IB: French SL1/SL2

In this language acquisition course, students focus on five themes: identities, experiences, human ingenuity, social organization, and sharing the planet. Students communicate clearly and effectively in a range of situations, demonstrate linguistic competence and intercultural understanding, use language appropriate to a range of interpersonal and cultural contexts, use language to express and to respond to a range of ideas in a clear, coherent, and convincing manner, and use written texts and works of literature written in French.

Students at standard level learn the advanced lexicon and grammar necessary to communicate through speaking, listening, reading, and writing. Students respond to visual stimuli, present orally, role play, and write emails, blogs, articles, letters, creative stories, and advertisements.

11th/12th-grade two-year course

FRE 400-IB: French HL1/HL2

PLACEMENT IN THIS COURSE REQUIRES APPROVAL BY THE DEPARTMENT CHAIR/IB COORDINATOR

In this language acquisition course, students focus on five themes: identities, experiences, human ingenuity, social organization, and sharing the planet. Students communicate clearly and effectively in a range of situations, demonstrate linguistic competence and intercultural understanding, use language appropriate to a range of interpersonal and cultural contexts, use language to express and to respond to a range of ideas in a clear, coherent, and convincing manner, and use written texts and works of literature written in French.

Students at higher level learn the advanced lexicon and grammar necessary to communicate through speaking, listening, reading, and writing. Students respond to visual stimuli, present orally, role play, and write emails, blogs, articles, letters, creative stories, and advertisements.

11th/12th-grade two-year course

SPA 100: Novice Spanish

This language acquisition course focus on five themes: identities, experiences, human ingenuity, social organization, and sharing the planet. Students demonstrate an awareness and understanding of the intercultural elements related to the topics studied and communicate clearly and effectively in a range of situations.

Students learn the fundamental lexicon and grammar necessary to communicate through speaking, listening, reading, and writing. Students respond to visual stimuli, present orally, role play, and write emails, blogs, articles, letters, creative stories, and advertisements.

9th/10th-grade course

SPA 200/210: Intermediate Spanish

This language acquisition course continues to focus on five themes: identities, experiences, human ingenuity, social organization, and sharing the planet. Students communicate clearly and effectively in a range of situations, demonstrate linguistic competence and intercultural understanding, use language appropriate to a range of interpersonal and cultural contexts, use language to express and to respond to a range of ideas in a clear, coherent, and convincing manner, and use written texts and works of literature written in Spanish.

Students learn the advanced lexicon and grammar necessary to communicate through speaking, listening, reading, and writing. Students respond to visual stimuli, present orally, role play, and write emails, blogs, articles, letters, creative stories, and advertisements.

9th/10th-grade course

SPA 300-IB: Spanish ab initio 1/2

This language acquisition course focuses on five themes: identities, experiences, human ingenuity, social organization, and sharing the planet. Students demonstrate an awareness and understanding of the intercultural elements related to the topics studied and communicate clearly and effectively in a range of situations.

Students learn the fundamental lexicon and grammar necessary to communicate through speaking, listening, reading, and writing. Students respond to visual stimuli, present orally, role play, and write emails, blogs, articles, letters, creative stories, and advertisements.

11th/12th-grade two-year course

SPA 310-IB: Spanish SL1/SL2

In this language acquisition course, students focus on five themes: identities, experiences, human ingenuity, social organization, and sharing the planet. Students communicate clearly and effectively in a range of situations, demonstrate linguistic competence and intercultural understanding, use language appropriate to a range of interpersonal and cultural contexts, use language to express and to respond to a range of ideas in a clear, coherent, and convincing manner, and use written texts and works of literature written in Spanish.

Students at standard level learn the advanced lexicon and grammar necessary to communicate through speaking, listening, reading, and writing. Students respond to visual stimuli, present orally, role play, and write emails, blogs, articles, letters, creative stories, and advertisements.

11th/12th-grade two-year course

SPA 400-IB: Spanish HL1/HL2

PLACEMENT IN THIS COURSE REQUIRES APPROVAL BY THE DEPARTMENT CHAIR/IB COORDINATOR

In this language acquisition course, students focus on five themes: identities, experiences, human ingenuity, social organization, and sharing the planet. Students communicate clearly and effectively in a range of situations, demonstrate linguistic competence and intercultural understanding, use language appropriate to a range of interpersonal and cultural

contexts, use language to express and to respond to a range of ideas in a clear, coherent, and convincing manner, and use written texts and works of literature written in Spanish.

Students at higher level learn the advanced lexicon and grammar necessary to communicate through speaking, listening, reading, and writing. Students respond to visual stimuli, present orally, role play, and write emails, blogs, articles, letters, creative stories, and advertisements.

11th/12th-grade two-year course

MAN 100/200: Novice/Intermediate Mandarin

This is an introductory, dual-level language acquisition course that focuses on five themes: identities, experiences, human ingenuity, social organization, and sharing the planet. Students demonstrate an awareness and understanding of the intercultural elements related to the topics studied, communicate clearly and effectively in a range of situations, and use accurately the basic structures of Mandarin.

Students improve their language skills by responding to visual stimuli, presenting orally, role playing, and by writing emails, blogs, articles, letters, creative stories, and advertisements. Students also listen to authentic radio and television programs related to current events, watch videos, and engage in conversations with native Mandarin speakers.

9th/10th-grade course

MAN 300-IB: Mandarin ab initio 1/2

This first year of a two-year introductory language acquisition course focuses on five themes: identities, experiences, human ingenuity, social organization, and sharing the planet. Students demonstrate an awareness and understanding of the intercultural elements related to the topics studied, communicate clearly and effectively in a range of situations, and use accurately the basic structures of Mandarin.

Students improve their language skills by responding to visual stimuli, presenting orally, role playing, and by writing emails, blogs, articles, letters, creative stories, and advertisements. Students also listen to authentic radio and television programs related to current events, watch videos, and engage in conversations with native Mandarin speakers.

11th/12th-grade two-year course

MATHEMATICS & COMPUTER SCIENCE

The Mathematics & Computer Science Department encourages each student to comprehend and execute the study of mathematics. Committed to supporting and assisting each student in their efforts, we believe students should be active learners who take risks and work collaboratively, enjoying the core concepts of mathematics and how it helps us to better understand the world around us.

MTH 100: Integrated Math I

This course is the first year of a three-year integrated math sequence exploring the topics traditionally covered in Algebra I, Algebra II, Geometry, and Precalculus. This course uses an integrated approach to lay the conceptual and technical groundwork for the study of further algebra, geometry, statistics, and discrete mathematics. It is appropriate for students who have completed Pre-Algebra.

Topics from the traditional Algebra I curriculum include algebraic operations with variable expressions, solving and graphing linear equations and inequalities, and solving quadratic equations. Foundational concepts from geometry and statistics include transformations and similarity, right triangles and the Pythagorean theorem, calculating area, theoretical probability, and quantitative statistics.

9th/10th-grade course

MTH 200/210/220: Integrated Math II/ Integrated Math II (A)/ Integrated Math II (H)

PLACEMENT IN THE ACCELERATED OR HONORS LEVEL REQUIRES APPROVAL BY THE DEPARTMENT CHAIR

This course is the second year of a three-year integrated math sequence covering the topics traditionally covered in Algebra I, Algebra II, Geometry, and Precalculus. The goal of this course is to extend and apply the topics studied previously and to introduce higher-level topics. This course is appropriate for students who have completed Pre-Algebra and Algebra I (Integrated Math I). Throughout the course, there is a focus on developing problem-solving skills, evaluating the potential uses of technology in mathematics, and communicating methods

and solutions. Students learn to model and may present or produce projects incorporating content from throughout the course.

Topics in the integrated level include linear equations, inequalities and systems, graphing and analyzing functions, exponents and radicals, and quadratic functions. Concepts from geometry include parallel lines and transversals, polygon angles, triangle congruence and basic proofs, properties of quadrilaterals and circles, and 3D geometry. Additional topics in the accelerated level include exponential functions, and right triangle and unit circle trigonometry. The honors level involves deeper explorations, extensions, and applications of all topics and includes further proofs and trigonometric functions on the coordinate plane.

All grades course

MTH 300/310/320: Integrated Math III/ Integrated Math III (A)/Integrated Math III (H)

PLACEMENT IN THE ACCELERATED OR HONORS LEVEL REQUIRES APPROVAL BY THE DEPARTMENT CHAIR

This course is the third year of a three-year integrated math sequence covering the topics traditionally covered in Algebra I, Algebra II, Geometry, and Precalculus. The goal of this course is to integrate all previously learned math content, solidify retention of technical skills, and lead students into the questions that can be answered with higher-level study of mathematics including calculus and statistics. This course is appropriate for students who have completed Algebra I, Geometry, and Algebra II (Math II). Throughout the course, there is a focus on problem solving, comparison of methods and solutions, and self-reflection on both conceptual and technical mastery.

Topics in the integrated level include an integrated look at linear, quadratic, polynomial, exponential, logarithmic, radical, and rational functions, an introduction to complex numbers, equations of circles, and an in-depth study of trigonometry. Non-algebraic concepts include one-variable data analysis, graphical representations of two-variable statistics, and area and volume calculations. Additional topics in the accelerated level include sketching parent functions and their transformations without technology, as well as sequences and series. Further additional topics in the honors level include two-dimensional vectors, theoretical probability, and an introduction to limits and basic differential calculus.

10th/11th/12th-grade/postgraduate course

MTH 330: Math Fluency

This course is for students who want to learn a more intuitive and less formulaic version of mathematics, where fluid understanding of concepts is centered. Students will work through the basic building blocks of math at a deeper level and learn to apply them to more complex and varied situations.

Students will then use these skills to learn and cover mainstream content based on their proficiency levels. Topics can cover any content from Integrated Math I, II, or III as well as prerequisite knowledge, and extended learning.

11th/12th-grade/postgraduate course

MTH 340: Data Analysis

In this course, students learn how to gather data strategically and use data analytics to make actionable recommendations. Through project-based learning, particular attention is given to how data-based decisions can change the way businesses and other organizations operate.

This course provides an introduction to the data science process, including asking interesting questions, gathering data, analyzing data with statistics, data visualizations, and communication of findings. Spreadsheet and presentation software are utilized throughout the course.

12th-grade/postgraduate course

MTH 351/352: Modeling Climate Change

This course explores how economic models and projections are affected by climate trends, the business of sustainable energy, and the role that changes in weather patterns are playing in war zones, migration and immigration, radicalism, and natural disaster cleanup and recovery.

This course uses current climate data as the context for making and interpreting mathematical models. Students develop an understanding of weather prediction and climate, then review basic data analysis techniques to look at myriad current analyses. Students explore how weather data is collected and how scientists determine what climate patterns existed in the past. This course is appropriate for students who have completed Integrated Math III or the equivalent.

10th/11th/12th-grade/postgraduate semester-course

MTH 360-IB: Applications & Interpretation SL1/SL2

This course is designed for students with varied backgrounds and abilities in mathematics. Students develop practical mathematical skills for describing our world, modeling and solving real-world problems using the power of technology.

Students learn to create and use models with linear, exponential, natural logarithmic, cubic, and simple trigonometric functions. Students learn right-angled and non-right-angled trigonometry, bearings, surface area and volume of 3D figures, and methods for collecting, displaying, and analyzing one- and two-variable data sets.

11th/12th-grade two-year course

MTH 370-IB: Analysis & Approaches SL1/SL2

This course develops curiosity and enjoyment of mathematics, and appreciation for its elegance and power. Students develop logical and critical thinking and refine their powers of abstraction and generalization.

This course is for students with a solid background in algebraic and geometric thinking. The course covers number sets and scientific notation, sequences and series and their financial applications, probability, one-variable statistics, linear correlation for two-variable data sets, triangle trigonometry, and analytic trigonometry.

11th/12th-grade two-year course

MTH 400-IB: Analysis & Approaches HL1/HL2

PLACEMENT IN THIS COURSE REQUIRES APPROVAL BY THE DEPARTMENT CHAIR/IB COORDINATOR

This course develops curiosity and enjoyment of mathematics, and appreciation for its elegance and power. Students develop logical and critical thinking and refine their powers of abstraction and generalization.

Students with a solid background in precalculus explore exponential, logarithmic, rational, and polynomial functions and function operations, statistics and probability, sequences and series, and advanced trigonometry. The course moves on to methods of proof and the study of differential and integral calculus.

11th/12th-grade two-year course

MTH 410-AP: AP Statistics

PLACEMENT IN THIS COURSE REQUIRES APPROVAL BY THE DEPARTMENT CHAIR

This is a non-calculus-based, college-level introductory statistics class. This course explores problems in many fields, including business, science, sports, and public policy. Students should be confident with high school math through Algebra II or its equivalent. Department approval is required to enroll in this course.

Data analysis, collection, and probability occupy the first semester. These topics are combined to discuss inference during the second semester. Students will also understand the conditions and assumptions necessary to use particular statistical tools, construct confidence intervals, and perform hypothesis tests.

11th/12th-grade/postgraduate course

MTH 420-AP: Calculus AB

PLACEMENT IN THIS COURSE REQUIRES APPROVAL BY THE DEPARTMENT CHAIR

This fast-paced, college-level course in single variable calculus explores the interpretation of graphs and tables as well as analytic methods. Students must be confident with prior mastery of precalculus concepts. Department approval is required to enroll in this course.

The primary topics of this course are limits, derivatives, integrals, and their applications. Students learn to work with functions presented numerically, algebraically, and graphically, and to discuss the connections among these representations.

10th/11th/12th-grade/postgraduate course

CSC 300-IB: Computer Science SL1/SL2

This course studies creativity within a global context. It raises awareness of the moral, ethical, social, economic, and environmental implications of using science and technology and the possibilities and limitations associated with continued developments in IT systems and computer science.

This teaches computing system fundamentals, program construction using Java, systems life cycles, and software development. Students come to understand the use of computers in a variety of disciplines and learn methods to analyze problems and plan computer solutions. It is recommended that students take Coding prior to enrolling in this course.

11th/12th-grade/postgraduate two-year course

CSC 311/312: Web Design

We spend tremendous amounts of our lives surfing the web, but what is it, and how do the pages we work, shop, share, read, fight, and get information on come to be? This course explores the inner workings of how websites come to be and operate.

This project-based course introduces students to the wide world of web design. Students learn to create websites using open-source internet resources. They use a variety of coding languages, including HTML, CSS, SASS, and Javascript to develop a foundation for creating and adding a variety of aspects to webpages. Students ranging from coding beginners to experienced programmers can take this course to learn new coding languages and broaden their understanding of how computers and webpages work.

All grades semester course

CSC 321/322: Coding

This course is an introduction to the exciting, rapidly growing world of coding and teaches structured program logic. Students discover the role computation and analysis of animation can play in solving problems. They learn the process of writing and debugging a program through algorithms and simulation. Good style and logical thinking will be emphasized throughout the semester. This course is appropriate for students who have completed Integrated Math I or the equivalent.

All grades semester course

CSC 331/332: Big Data

What do Google and Amazon do with all the data they collect every day? Data science is booming. Fundamental to this course is the difference between scientific experimentation, statistics, and big data.

Students in this course learn some of the tools that data scientists use to get value from huge amounts of data. Students complete their own research on data of interest and generate statistics using software such as Stata, R, and SQL. A unit of this class also focuses on managing data with Excel. This course is appropriate for students who have completed Integrated Math I or the equivalent.

All grades semester course

SCIENCE

The Science Department creates an environment that fosters an appreciation for the nature of science and its application in the real world. Through the presentation of facts, data collection, and experiential learning opportunities, students are immersed in the scientific method, where they explore core scientific concepts through risk-taking and hands-on experiences.

SCI 100: Integrated Science I

In this course, students uncover the patterns that characterize the universe, life, and the physical world. They learn to think like scientists, inquiring into systems, processes, and interactions by directly observing, questioning, and analyzing the world around them.

This course covers the spectrum of scientific fields, from biology to chemistry, from earth science to physics, and from environmental science to engineering. Students put these themes to practical use through hands-on research, conducting experiments, and collaborating to creatively address real-world problems.

9th-grade course

SCI 200: Integrated Science II

In this course, students examine the interactions that characterize living and non-living systems, explaining and predicting phenomena via the development of scientific models. They learn to think like scientists, inquiring into causes and effects by directly observing, questioning, and analyzing the world around them.

This course covers the spectrum of scientific fields, from biology to chemistry, from earth science to physics, and from environmental science to engineering. Students put these themes to practical use through hands-on research, conducting experiments, and collaborating to creatively address real-world problems.

10th-grade course

SCI 210: Integrated Science II (H)

PLACEMENT IN THIS COURSE REQUIRES APPROVAL BY THE DEPARTMENT CHAIR/IB COORDINATOR

In this course, students examine the interactions that characterize living and non-living systems, explaining and predicting phenomena via the development of scientific models. They learn to think like scientists, inquiring into causes and effects by directly observing, questioning, and analyzing the world around them.

This course covers the spectrum of scientific fields, from biology to chemistry, from earth science to physics, and from environmental science to engineering. Students put these themes to practical use through hands-on research, conducting experiments, and collaborating to creatively address real-world problems.

10th-grade course

SCI 300: Physics

Physics reveals the mathematical beauty of the universe at scales ranging from subatomic to cosmological. It is the study of nature in an attempt to understand how the universe behaves.

Physics students investigate topics including an in-depth conceptual and quantitative investigation into motion, forces, energy, and electricity and magnetism, and learn to appreciate the development of scientific principles and the people who developed them. Students are expected to have succeeded in Integrated Math II or the equivalent to take this course.

11th/12th-grade/postgraduate semester course

SCI 311/312: Environmental Science

In this course, students develop a greater understanding of our Earth and environment, with a focus on the impact of the human population and what humans can do to preserve our planet and decrease our negative impact.

Students explore Earth/environmental systems and global change, energy sources and sustainability, human health, and population growth. There is an emphasis throughout the course on biodiversity and resource conservation.

11th/12th-grade/postgraduate semester course

SCI 321/322: Biotechnology & Forensic Science

This course sharpens student pattern recognition, observation, analysis, and critical thinking skills. Students are challenged in this course to consider, at a deeper level, the implications of subjects like biology and skills like deductive reasoning in the real world.

Students engage in the scientific study of searching and processing crime scenes, as well as the proper collection and analysis of simulated physical evidence. Students experience a variety of procedures to analyze things such as fingerprints, hair and fiber, blood splatter, cybercrime, DNA analysis, and more.

11th/12th-grade/postgraduate semester course

SCI 331/332: Engineering

In this course, students see science, mathematics, and engineering through the real-world connections made in the classroom. They see how these disciplines play a major role in their everyday world and the importance of being scientifically and technologically literate.

The course focuses on the design process and its application. Topics include mechanisms, energy, statics, materials, and kinematics. Students create solutions to different challenges, and then document their work and communicate their solutions to their peers.

11th/12th-grade/postgraduate semester course

SCI 341/342: Astronomy

In this introductory course, students investigate the nature of the universe and how we know about it. Concepts of scientific evidence and justification, structure and evolution, and understanding humanity's place in the universe are emphasized as we learn about the solar system, stars, galaxies, and cosmology.

Students develop an understanding of and ability to practice techniques in observational astronomy, including the practice of night sky observation and spectroscopic analysis. They pursue independent projects investigating astronomical phenomena of their choice, and hone their scientific presentation and communication skills.

11th/12th-grade/postgraduate semester course

SCI 350-IB: Sports, Exercise, & Health Science SL

This course gets at the heart of how scientific knowledge progresses and how we distinguish science from pseudoscience. Students develop both a sense of scientific intuition and imagination.

This course incorporates the disciplines of anatomy and physiology, biomechanics, psychology, and nutrition, which are studied in the context of sport, exercise, and health. Students acquire the knowledge and understanding necessary to apply scientific principles and analyze human performance. Ethical issues that exist within sporting competitions are considered.

11th/12th-grade/postgraduate course

SCI 360-IB: Biology SL1/SL2

This course develops globally minded students who understand and appreciate the world's biodiversity and interconnectedness by explaining and discussing all aspects of life. Students design their own experiments to test aspects of their world and knowledge to empower decision-making.

This course empowers students to investigate their world with the knowledge and skills needed for scientific inquiry. Students explore life from the molecular level, through organismic evolution and its ecological role.

11th/12th-grade two-year course

SCI 370-IB: Chemistry SL1/SL2

Chemistry enables us to understand the properties of different materials and to transform materials into new and useful substances. Through chemistry, we can understand changes that we observe in the physical world.

This course covers core concepts in chemistry, comprising, essentially, a college-level syllabus. Topics include atomic structure, stoichiometry, periodicity, chemical bonding and structure, energetics, kinetics, and equilibrium. The second year covers organic chemistry, analytical techniques, acids and bases, redox, and an option of medicinal chemistry. Extensive laboratory work is conducted, and problem-solving skills are emphasized throughout the course.

11th/12th-grade two-year course

SCI 380-IB: Physics SL1/SL2

This class is about the concepts and principles of physics, abstract thought, and the global impacts of science on the cultures of the world. Students discover and explore the nature of science through past and present discoveries and the direction of science in the future.

This course provides an in-depth exploration of measurements, uncertainties, mechanics, thermal physics, waves, electricity and magnetism, circular motion and gravitation, atomic, nuclear, and particle physics, and one option to be chosen by the teacher.

11th/12th-grade two-year course

SCI 400-IB: Biology HL1/HL2

PLACEMENT IN THIS COURSE REQUIRES APPROVAL BY THE DEPARTMENT CHAIR/IB COORDINATOR

This course develops globally minded students who understand and appreciate the world's biodiversity and interconnectedness by explaining and discussing all aspects of life. Students design their own experiments to test aspects of their world and knowledge to empower decision-making.

This course empowers students to investigate their world with the knowledge and skills needed for scientific inquiry. Students explore life from the molecular level, through organismic evolution and its ecological role.

11th/12th-grade two-year course

SCI 410-IB: Chemistry HL1/HL2

PLACEMENT IN THIS COURSE REQUIRES APPROVAL BY THE DEPARTMENT CHAIR/IB COORDINATOR

Chemistry enables us to understand the properties of different materials and to transform materials into new and useful substances. Through chemistry, we can understand changes that we observe in the physical world.

This course covers core concepts in chemistry, comprising, essentially, a college-level syllabus. Topics include atomic structure, stoichiometry, periodicity, chemical bonding and structure, energetics, kinetics, and equilibrium. The second year covers organic chemistry, analytical techniques, acids and bases, redox, and an option of medicinal chemistry. Extensive laboratory work is conducted, and problem-solving skills are emphasized throughout the course.

11th/12th-grade two-year course

SCI 420-IB: Physics HL1/HL2

PLACEMENT IN THIS COURSE REQUIRES APPROVAL BY THE DEPARTMENT CHAIR/IB COORDINATOR

This class is about the concepts and principles of physics, abstract thought, and the global impacts of science on the cultures of the world. Students discover and explore the nature of science through past and present discoveries and the direction of science in the future.

This course provides an in-depth exploration of measurements, uncertainties, mechanics, thermal physics, waves, electricity and magnetism, circular motion and gravitation, atomic, nuclear, and particle physics, and one option to be chosen by the teacher. At higher level, students further explore wave phenomena, fields and forces, electromagnetic induction, and nuclear and quantum physics.

11th/12th-grade two-year course

SEMINARS & OTHER COURSES

9TH-GRADE SEMINARS:

The 9th-grade seminar is rooted in developing confidence and character and focuses on examining individual identity and learning how to be a successful member of the CA community. The coursework helps students develop habits for academic success, find their own voices and interests, and become engaged in all CA has to offer.

SEM 101/102: The Environment, Justice & You

This course demonstrates the ways that environment and justice intersect, and how individuals can work to understand and take action against injustice. Students explore current environmental justice issues and learn how to see inequities through a multi-modal lens.

As part of the course, students respond critically to texts through active conversation, written reflection, and research analysis.

Students research their own project, using resources on campus, to write a proposal, interpret data, and present a social activism plan.

9th-grade semester course

SEM 111/112: Heroes, Quests, & Rites of Passage

We all experience rites of passage throughout our lives. Our first steps, first crush, prom, religious ceremonies, graduation, moving away from home, marriage, retirement, mourning. This course explores rites of passage through anthropology, psychology, literature, dreams, and popular culture.

Through journaling, short critical essays, interviews, field trips, and a final multimedia project, students are encouraged to find their own voice and explore the idea and reality of the rite of passage on deeply personal, local, and societal levels.

9th-grade semester course

SEM 121/122: Lyrics, Pop Music, & Empathy

Songs have been a foundational element of human culture since society emerged. Putting words to melody is among the most powerful forms of self-expression invented by our species. This course explores the intersection between words, melody, and emotional experience.

In this course, students respond critically to lyrics from popular music around the world and across time. Students have the opportunity to interact with the lyrics and music of songs using a variety of media—from video and audio recording, to written reflections and original composition, to research-based practice.

9th-grade semester course

10TH-GRADE SEMINARS:

The 10th-grade seminar is rooted in critical thinking, moving beyond self-examination to begin considering the larger communities we exist in, engage in, are shaped by, and are active in shaping. The coursework helps students think more abstractly and analyze larger societal factors that influence us as thinkers and human beings.

SEM 201/202: The French Connection in Connecticut

Knowledge of local history is of critical value for a sense of place, a sense of belonging, and a sense of purpose. Seeing the ways in which various cultures and national identities have shaped the environments we think of as ‘everyday’ helps broaden our understanding of our community and our place in it.

In this highly experiential course, students will travel—both virtually and in person—to a variety of important local and regional Connecticut historical and cultural sites, focusing on the connections between U.S. History, French/French-Canadian culture, and the lives of the communities in and around Cheshire and the state of Connecticut.

10th-grade semester course

SEM 211/212: Music in Popular Culture & Society

Music has always played an integral role in the development of culture and society, and in turn, culture has always influenced music. This class explores prominent musical and cultural movements, mainly in America, from the 1960s to present day, from The Beatles and Marvin Gaye to Beyonce.

Students listen to, analyze, and develop a more critical understanding of different music genres such as folk songs, protest songs, music genres specific to a culture, and music tied to cultural movements. They observe how these genres have evolved and look critically at today’s music and how it is influenced by and contributes to cultural movements. Students write, collaborate, and present on topics from the course in addition from their own connection to music and pop culture.

10th-grade semester course

SEM 221/222: Media & News Consumption

We live in a world where there is almost always a bias, spin, or perspective behind the information we receive. How can we tell whether what we’re hearing is the truth, the whole picture, or reliable? This course tackles the information age in all of its complexity and confusion.

Students in this course become savvy at consuming news and mass media. The goal of the course is for students to embrace complexity, and to use critical thinking, deductive reasoning, and investigative skills to become strong synthesizers and analysts of the information that bombards them every day.

10th-grade semester course

SEM 231/232: Understanding Human Rights

The idea that all people have certain rights is a shockingly new one in human history. This course explores ideas and conflicts around a series of human rights questions, such as the right to education, the right to asylum, religious freedom, and the right to exist.

Using an international lens, and covering topics from India, the EU, Northern Ireland, and Israel/Palestine, students explore the questions that arise when rights are decided upon and when they come in conflict with one another. The course includes, as permitted, a service engagement with refugee organizations in New Haven County.

10th-grade semester course

OTHER SEMINARS & INTERDISCIPLINARY COURSES:

INT 301/302: The Art of Argument

Engaging in civil dialogue and conversation makes us effective mechanisms of change in society. The ability to deliver a convincing message benefits students throughout their public, personal, and professional lives. This course explores persuasive writing and speaking and helps students learn to craft messages of influence. Students create and assess arguments, detect discrepancies and faults in reasoning, and learn to understand commonsensical associations between thoughts and ideas.

In this semester course, students engage in audience analysis during speech brainstorming, organization, and delivery. Students explore different areas of persuasive speaking including, but not limited to, law, social media, public issues, and policy. Students create formal speeches to inspire a call to action and sway opinion, brief extemporaneous speeches, argument analyses, and peer speech evaluations. Group work aids preparation and provides a forum to try out arguments and ideas.

10th/11th/12th-grade/postgraduate semester course

SEM 400-IB: Theory of Knowledge

This course prompts students to be aware of themselves as thinkers, encouraging them to become more acquainted with the complexity of knowledge. Students come to recognize the need to act responsibly in an increasingly interconnected but uncertain world.

This course for full IB Diploma Programme candidates asks students to reflect critically on diverse ways of knowing and areas of knowledge. It asks questions about the role and nature of knowledge in students' cultures and the cultures of others in the wider world.

11th/12th-grade core IB Diploma Programme course

SEM 500: PG Seminar

This course prepares postgraduates for college and life outside school. The first semester focuses on the college preparation process, with dedicated time for work on applications (including essays and supplements), as well as discussions around learning styles, the recruitment process, practice for on-campus tours and interviews, and college athletics. The semester concludes with lessons on leadership and financial literacy, culminating in a group presentation with written reflection.

The second semester is defined by each student's individual passion through the Postgraduate Project. This is a multi-faceted assignment that requires design, critical thinking, problem-solving, research, media literacy, organization, communication skills, and hands-on experiential learning. This project is a culminating academic and intellectual experience to prepare students for college, modern careers, and adult life.

Postgraduate course

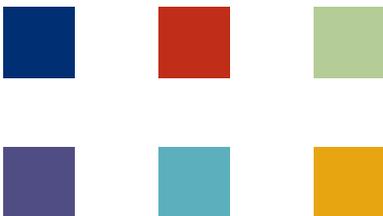


Mission

Cheshire Academy is an internationally minded college-preparatory school that challenges its students to maximize their potential by developing the confidence, character, and critical thinking skills that enable them to thrive as global citizens.

The Eight Pillars of Bowden

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|----------------|-----------------|
| RESPONSIBILITY | CITIZENSHIP |
| RESPECT | MORALITY |
| CARING | FAIRNESS |
| CIVILITY | TRUSTWORTHINESS |



**Grades 9-12 and Postgraduate
Coed, Boarding and Day**

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