**Westtown School**

**CONTACT INFORMATION**

For prospective families:

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admissions@westtown.edu
Phone: 610-399-7900
Fax: 610-399-7909

For returning families:

**Upper School Office**
Phone: 610-399-7700
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**Director of Studies:**
Karen Gallagher, karen.gallagher@westtown.edu

**Director of College Counseling:**
Susan K. Tree, susan.tree@westtown.edu

**Registrar’s Office:**
courseregistration@westtown.edu

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**GRADUATION REQUIREMENTS:**
Westtown’s graduation requirements are purposefully flexible so that a student may concentrate in areas of passionate interest, as in the case of students who take five science classes during their four years in Upper School. In fact, most Westtown students will take at least three to four years of classes in each core academic area. The chart below outlines the requirements for graduation.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Recommended:</th>
<th>Minimum Requirement:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English</strong></td>
<td>4 credits</td>
<td>4 credits</td>
</tr>
<tr>
<td><strong>History</strong></td>
<td>3 or 4 credits including US History (at least 1 credit in grades 11 or 12)</td>
<td>2 credits</td>
</tr>
<tr>
<td><strong>Language</strong></td>
<td>4 or 5 credits in one language or 2 yrs + 2 yrs in 2 languages (through 11th grade at least)</td>
<td>2 credits (through level 2)</td>
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<tr>
<td><strong>Math</strong></td>
<td>4 or 5 credits (through 12th grade)</td>
<td>3 credits</td>
</tr>
<tr>
<td><strong>Science</strong></td>
<td>3 credits (including 2 semesters each course: Physics, Chemistry, Biology)</td>
<td>2 credits</td>
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<tr>
<td><strong>Arts</strong></td>
<td>1.5 credits</td>
<td>1 credit</td>
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<tr>
<td><strong>Health</strong></td>
<td>.5 credits (Health and Life Skills)</td>
<td>.5 credits</td>
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<tr>
<td><strong>Religion</strong></td>
<td>1.75 credits (including Quakerism in Life &amp; Practice, Bible, World Religions, and Senior Religion Elective)</td>
<td>1.75 credits</td>
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<tr>
<td><strong>Interdisciplinary Studies/Service</strong></td>
<td>Senior Projects</td>
<td>.5 credit</td>
</tr>
<tr>
<td><strong>Athletics</strong></td>
<td>4 years Every Term</td>
<td>4 years Every Term</td>
</tr>
<tr>
<td><strong>Community Life</strong></td>
<td>2 years in residence 11th and 12th grades (For students enrolled by grade 7, boarding is optional)</td>
<td>11th and 12th grade</td>
</tr>
</tbody>
</table>

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Boarding at Westtown School

Director of Studies:
Karen Gallagher, karen.gallagher@westtown.edu

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Susan K. Tree, susan.tree@westtown.edu

Registrar’s Office:
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# Table of Contents

## UPPER SCHOOL ACADEMIC OFFERINGS
- Overview .......................................................... Page 2
- Course Offerings by Department ............................. Page 3
  - English ......................................................... Page 3
  - History ......................................................... Page 7
  - Math .......................................................... Page 11
  - Science ......................................................... Page 14
  - World and Classical Languages ............................ Page 20
  - Religion ........................................................ Page 25
  - Studio Art ..................................................... Page 27
  - Performing Arts .............................................. Page 30
  - Interdisciplinary Studies .................................... Page 32
  - Health & Life Skills .......................................... Page 33

- College Counseling ............................................. Page 34

- Distinguishing Programs ....................................... Page 34
  - Deep Dive Designations .................................... Page 34
  - Global Connections .......................................... Page 35
  - International Student Program ............................ Page 35
  - Leadership and Experiential Learning .................... Page 35
  - Service Learning ............................................ Page 36

- Academic Resources: Learning Resource Center .......... Page 36

- Westtown Science Institute .................................. Page 37

- Standardized Testing ........................................... Page 37

- Athletics ........................................................ Page 39

- Curriculum-at-a-Glance ....................................... Page 40
The Westtown Upper School curriculum challenges students to discover their intellectual strengths. The core curriculum in ninth and tenth grades is built on yearlong courses in every subject so that students develop a strong foundation. Eleventh and twelfth grade students pursue a variety of courses in areas of their individual strengths, choosing from elective options rich in opportunities for leadership in designing research and social action projects, written and oral expression, and applied laboratory experiences.

Course Planning

Planning your curriculum:
Days are very full in this school community. In planning your four-year program, keep the following points in mind:
- challenge yourself
- look for opportunities for growth
- consider your strengths
- strive for a balanced combination of courses and co-curricular commitments
- meet all graduation requirements

All 9th grade and new students work with the Director of Studies in completing their plan for the coming year. They complete placement tests to confirm their choices. As students prepare to enter 10th grade, they complete a Tentative Four-Year Plan. The goal is to map out next year’s courses and a possible path for future courses. Returning students work with their advisor, their current teachers, and their parents in mapping out the best combination of courses for the coming year. Department Chairs, the Director of Studies, and the College Counseling team also review proposed course plans in the spring term.

What will you find in our academic program?

Courses which encourage you to stretch yourself
- You’ll think critically and create new ways to approach challenging ideas and problems
- You’ll create an action plan to address an issue of social justice in religion classes
- You’ll analyze data in economics classes that helps connect measurable results and sustainability solutions
- You’ll master clear and compelling writing skills in a program that values communication and analytical skills as essential tools for success

Diploma requirements which offer both the flexibility to highlight areas of strength and a solid foundation
- You can tailor a curriculum to develop your passions and your talents
- Advanced offerings for in-depth study of subjects that appeal to you
- Opportunities to design independent research and projects in a subject you choose
- If you like STEAM subjects (Science, Technology, Engineering, Arts, and Math), you should know that Westtown students go on to major in these STEAM disciplines at twice the national average

A classroom approach which reinforces connections, collaboration, community building, and social responsibility
- Dialogue, debate, persuasion, discovery - these are at the heart of the dynamic classroom at Westtown
- Group projects and presentations put student inquiry at the center
- International exchange groups and service learning projects unique to Westtown challenge you to make a commitment to make a difference in the world
- Boarding program brings students from across the world and the United States together under one roof
Advanced Courses and Independent Research Projects

After extensive research involving colleges and peer schools, Westtown decided to stop using the AP designation. We determined that in a few subjects (math, physics, chemistry), the AP curriculum is still good preparation for college study; in other areas it is limited and doesn’t allow time for action-based learning that is at the heart of 21st Century learning. Every department offers advanced courses that provide students the ability to reach greater depth of study.

Independent Research Project Seminar allows students to design an advanced research experience or project under the supervision of the Director of Teaching and Learning and a mentor who specializes in the field of exploration. Whether the interest is in science, math, writing, languages, or the arts, students can apply for an advanced independent project to replace one of their core courses.

Course Offerings by Department

ENGLISH

Students are required to complete four credits of English.
The English Department believes that the study of literature and composition fosters empathy. The core courses challenge students to develop their own thoughts and beliefs, to become aware of the perspectives of others, and to extend their awareness to broader social issues. Through a rigorous reading and writing curriculum, students become strong critical thinkers and persuasive communicators.

A student who attends Westtown for four years will complete the following essential experiences:

- 9th grade debate project: formal debate elements include development of argument, research, and oral presentation
- Confident writing voice: each student will develop a strong writing voice in the writing program
- Presentation and class leadership curriculum: students lead classes, facilitate discussion, and make formal presentations at every level
- Critical feedback development: students give and receive critical feedback on classmates’ writing, learning how to deliver constructive criticism and how to use feedback effectively
- Vocabulary development: Membean software, individualized curriculum in grades 9-12
- 11th grade Personal Narrative paper: students create and present a personal narrative as a capstone experience
- 12th grade Extended Literary Analysis paper: 6-8 page analysis of a major work of literature that includes research of literary critical perspectives
- 12th grade Portfolio Project: students gather a selection of original writing from their 4-year program to demonstrate variety and strength of writing skills across the curriculum (Begins with the class of 2017)

Courses offered:
The Outsider in Literature (English 9) Creative Writing (Advanced)
American Literature (English 10) British Literature 1 (Advanced)
Contemporary World Literature (English 11) American Literature 2 (Advanced)
Writing with Power (English 12) World Literature 2 (Advanced)
11th/12th Grade English Electives

(11th and 12th grade students are required to take one elective in the second semester of 11th and 12th grade to complete their English requirement.)
Course Descriptions:

211 The Outsider in Literature (English 9)  
1 credit  
grade 9
The Outsider in Literature introduces students to skills essential for the study of literature and the development of sound expository writing. Using texts from Greek tragedy through contemporary novels, the course explores the relationship between the individual and the community. Students sharpen their critical thinking skills by discussing and writing about novels, short stories, poetry, plays, and other media. While special attention is given to developing strong expository writing skills, students also respond to literature in creative ways, such as free-writing, personal narratives, small group presentations and short story composition. Ninth grade students also learn the skills of formal debate, presenting a series of debates on Antigone to the community. This course also includes regular skill development in grammar/mechanics, vocabulary, and note-taking.

221 American Literature (English 10)  
1 credit  
grade 10
In conjunction with U.S. History, American Literature fosters continued growth for students as readers, writers, speakers, and thinkers. Writing exercises of various lengths deepen the development of self-expression and the understanding of the composition process. Students refine their facility with the language through a study of vocabulary, grammar, and usage, together with practical applications of editing skills. In addition, they work at developing increased complexity of literary analysis, the capacity to specify and generalize, and the power to participate actively in examining literature in class discussion and in their writing. Teachers regularly use outside sources such as film versions of the literature, posters from the National Endowment for the Humanities’ Picturing America collection, and visits to local theater.

231 Contemporary World Literature (English 11) (Semester 1)  
½ credit  
grade 11

Intensive writing instruction focuses on close literary analysis, rhetorical models, and the composition of the short essay. Building from seminar-style discussions, each student learns to generate and shape a thesis and develop an argument using supporting evidence from the text. Creating outlines, writing multiple drafts, and working with peer and teacher feedback, students learn the importance of process as well as product. Each student will write and present a personal narrative as the capstone experience.

241 Writing with Power (English 12) (Semester 1)  
½ credit  
grade 12
Writing with Power develops from structure to independence. Seniors immerse themselves in writing throughout the first quarter, developing and honing advanced writing skills that will sustain them as they prepare for rigorous writing in every subject they study in the future. Early in the year, students receive intensive training and practice in forming and supporting thesis statements which focus on the abstract significance of concrete propositions. They study model essays from classic writers like Jonathan Swift to contemporary writers like Michael Pollan, Annie Dillard, and Maxine Hong Kingston. A review of common grammatical errors undergirds this work on the structure of an essay. By the end of the first quarter, students will have completed a collection of essays. By second quarter students learn to feel comfortable with more open-ended assignments that require them to set individual challenges and take greater responsibility for their own education, an essential bridge to the self-reliance they will need in college. In the second quarter, students turn to one of Shakespeare’s tragedies to sharpen their critical and analytical skills. They continue to work on their writing as they study the play. Work culminates in a 7-10 page essay on Shakespeare’s play, incorporating the opinions of critics as well as the students’ own.
**11th and 12th grade English Electives: Semester 2 - 2016**

All 11th and 12th grade students complete the second semester of English in an elective English course. 9th and 10th grade students with a passion for literature may request department permission to add an elective to their program in the spring semester if they have earned a grade of 90.

**256 Nonfiction Writing 1 - The Literature of Food** ½ credit  grades 11-12

In this course students will use nonfiction and fiction about gastronomy as a vehicle for critical inquiry. We will consider both the content of the texts as well as the style, approach, and voice of the authors. All of our discussions will be geared toward a deeper discussion of food--what kinds of themes, actions, and memories can be explored via merely encountering food. There will be room for individual exploration in the design of the portfolio; they will include restaurant reviews, profiles, recipes, personal narratives, nonfiction essays, and travel essays. The class will include projects with Westtown’s farmers. The experience will be meant to alter preconceived notions of where our food comes from, and how it can be a vehicle to discuss almost anything else. Texts will include Bill Bufford’s Heat, Gabrielle Hamilton’s Blood, Bones and Butter, MFK Fisher, Anthony Bourdain, Mark Kurlansky, and Michael Pollan.

**257 20th Century Literature 2 - A History of New York in Fiction and Non-Fiction** ½ credit  grades 11-12

A central theme of this course is the evolution, growth, and change of the city that mirrors that of the US as a whole, and the remnants of NYC’s past that are still present and visible in the modern day. The daily life of average citizens will be a major area of focus throughout. Writers and films who will influence the ideas of the course: Herman Melville, Henry James, Edith Wharton, Walt Whitman (poetry), Joseph Mitchell (essay/journalism), James Baldwin (fiction/poetry), John Cheever (short fiction), Pete Hamill (contemporary fiction and essay, including a modern view of lower Manhattan), E.L. Doctorow (historic fiction ‘Ragtime’), Jonathan Lethem (contemporary fiction), Richard Price, Ken Burns “New York” DVD series (film), On the Bowery (1950’s documentary), Woody Allen.

**258 Research/Nonfiction 2 - Schooled in Diversity: Gender and Sexuality** ½ credit  grades 11-12

Westtown students and alumni offer rich stories about the role of gender and sexuality in our experiential community. Friendships grow deep lifelong roots and cross many social boundaries, teaching students about diverse cultural norms of gender, sexuality and identity. Alumni experiences offer perspective on the enormous social changes of the last few decades at Westtown. Students will engage in action research by interviewing students and alumni about their experiences, reading previous Schooled in Diversity research, and studying students’ stories and online postings. The class will visit other schools and compare school cultures of day and boarding, Quaker and public and private schools and single-sex schools. Finally, the class will present their findings to faculty and students, and create final projects highlighting key issues and recommendations.

**259 American Literature 2 - Harlem Renaissance (Advanced)** ½ credit  grades 11-12

This course introduces students to the uniquely creative cultural movement which took place among blacks in Harlem during the 1920s and 30s. The curriculum explores the historical, geographic, political, and theoretical contexts of the period before diving into an examination of some of the written work which came from and was inspired by the movement. Selections from authors Jean Toomer, Alain Locke, Wallace Thurman, James Weldon Johnson, Zora Neal Hurston, and Carl Van Vechten, and poets Langston Hughes, Countee Cullen, Claude McKay, Gwendolyn Bennett, Georgia Douglas Johnson, and Helene Johnson are the heart of this advanced course in American Literature.

**260 Contemporary Dramatic Literature 2 - Film, History and Culture** ½ credit  grades 11-12

Film captures culture and history in visual, visceral and narrative dimensions. We will pair films with texts to understand diverse lives, societal norms and values, and themes such as family and tradition, gender and sexuality, and lives erased from history. Films will range from international to American, and documentary to independent to mainstream Hollywood. Texts will range from novels to memoirs to nonfiction accounts of historical events to biographies. In addition to discussing and writing about the class texts and films, students will select their own pairing of stories to present to the class as a final project.
Creative Writing (Advanced) ½ credit grades 11-12
Creative Writing (Advanced), a writers’ workshop for talented and creative writers, offers feedback, practice, and many kinds of writing and reading, including personal narratives, fiction and poetry. Students write extensively in journals, study craft using models of masters of the short story and poetry. They practice the skills of powerful writing: use of detail, shape of story, point of view, dialogue, plot, characterization, alliteration, consonance, assonance, rhythm, rhyme, etc. Readings from a wide variety of poetry and short stories supplement core texts.

This advanced course is open to juniors and seniors with strong performance in English who enjoy writing and want experience and feedback on diverse kinds of writing. Writers do gain inspiration and much enjoyment from hearing others’ work and sharing feedback and encouragement in this seminar course. Given the writing load and intensity of this seminar, an 85% average in the previous year’s English work or departmental permission is a prerequisite for Creative Writing (Advanced).

ENGLISH LANGUAGE COURSES FOR INTERNATIONAL STUDENTS
Westtown School benefits tremendously from its international students who bring many different languages, viewpoints and world-wide backgrounds to the community. We are committed to supporting these students in the systematic, ongoing development of their English language skills as they work to acquire confidence, proficiency, and sophistication of expression. All international students at Westtown take our core English courses (The Outsider in Literature, American Literature, etc.). Based on a variety of in-house and external measures, some international students are also placed into an additional course with a specific focus on English language and composition.

The intermediate- and advanced-level courses offered non-native speakers of English have the following outcomes as their goals:
- to support students with high-intermediate or advanced proficiency in English so that they become comfortably bilingual in all skills before graduating from Westtown
- to provide a rich immersion in the reading of English, the skill our international students identify as being the most difficult of the four basic language skills (speaking, listening, writing, and reading)
- to provide ample opportunities for the development of oral skills, with a deliberate focus on active small- and large-group discussions and presentations

Course Descriptions:

270 English Language and Composition for International Students 1 1 credit grades 9, 10, 11
This intermediate-level course is designed to develop fluency, accuracy and increased sophistication in all English language skills. Students are required to read independently and extensively and write regularly in individual reading journals as they develop English vocabulary, reading speed, comprehension, and writing fluency. Students also participate in literature circles - small, student-led discussion groups requiring each student’s written and oral participation. This course replaces a foreign language course in the student’s curriculum. Students enrolled in this course also take The Outsider in Literature.

271 English Language and Composition for International Students 2 1 credit grades 10, 11, 12
This advanced-level course continues the development of fluency, accuracy, and increased sophistication in all English language skills. Short stories, lectures, essays, poetry and interviews from classroom texts are often linked with online sources (National Public Radio, TED talks, etc.) as students hone their listening skills while focusing on discussion-rich content. Students also regularly read newspaper articles of their choice and write responses in a current events journal as part of an ongoing focus on academic reading and writing. This course usually replaces a religion, language or history course in the student’s curriculum. Students in this course also take The Outsider in Literature or American Literature.

272 English Literature and Language for International Students (Advanced) ½ credit grades 10, 11, 12
This course supports students whose first language is not English as they work to master English in order to prepare for fluency in university-level courses. The focus is on reading, writing, listening, and speaking so that students build confidence in their ability to use context to understand vocabulary and nuance. The texts include essays and short stories as well as a graphic novel and a play.
HISTORY

Students are required to complete two credits in History, including U.S. History. Most students complete at least three history courses before graduation.

The History Department exposes students to both western and non-western historical traditions while grounding them in the history of the United States. Courses embody the values and mission of Westtown School by fostering in students a deepening sense of civic understanding, involvement, and activism.

The history curriculum includes the following core experiences:

- Simulations and debates in which students articulate a critical stance on an issue of civic importance
- Careful analysis of primary and secondary texts, with emphasis on the historical essay
- Peace and Justice Social Action Project in grades 9 or 10 blends research and action
- Thesis-driven research paper in grades 11 and 12
- Research project and presentations required in grades 11 and 12

Full-year courses:
- Peace and Justice
- Peace and Justice (Advanced)
- U.S. History
- U.S. History (Advanced)
- Hiroshima to 9/11 (Advanced)
- Hiroshima to 9/11
- U.S. History for International Students
- Holocaust & Genocide (Advanced)

Semester courses offered in 2016-17:
- Latin America 1 (Ancient Civilizations) (S1)
- Latin America 2 (Modern Latin America) (S2)
- Modern Africa (S)
- Modern Africa (Advanced) (S)
- Ancient World History 1 (Egypt, India, China) (S1)
- Ancient World History 2 (Greece, Rome, Europe) (S2)
- Contemporary Affairs (Advanced) (S)
- Microeconomics (S1)
- Macroeconomics (S2)

Semester courses for 2017-18:
- Modern World History (1300-1800) (S1)
- Chinese History (S1)
- Modern Europe 1 - (S1)
- Microeconomics (S1)
- Modern World History (1800- 2000) (S2)
- Modern Indian History (S2)
- Modern Europe 2 - (S2)
- Macroeconomics ( S2)

Course Descriptions:

312 Peace and Justice 1 credit grades 9-10
This course examines methods of social change used by people and organizations to counter intolerance and injustice. Students study the Civil Rights Movement in depth as an example of non-violent social change. In the spring term, the emphasis shifts to global issues with a focus on environmental justice and sustainability. During the year, students develop a project that engages them in creating meaningful change (at the local, state, national, or international level) on a topic they choose. Current events, films, primary and secondary sources all provide material for the course. Classroom activities include role playing, simulations, case studies, debates, and small group work as well as whole group discussion. Field trips and guest speakers provide inspiration from leaders in the world of civic engagement. Emphasis is also placed on the development of effective study skills: library research, note-taking, outlining, and essay writing. This course culminates with students sharing their projects with the community in a Social Action Symposium.

313 Peace and Justice (Advanced) 1 credit grades 9-10
Peace and Justice (Advanced) students will be in classes with the core Peace and Justice sections throughout the year. At the close of Quarter One, the Peace and Justice faculty will invite students to join an additional weekly seminar for the remainder of the year. Participation in the advanced seminar includes reading additional works on topics related to material being covered in class. They will work collaboratively with other advanced students on their Social Action Projects and have an additional component to this project that is designed in conjunction with the instructor. Successful completion of these additional elements will earn an Advanced designation on the transcript. Faculty will invite students based on academic performance, interest, and demonstrated passion. Students may decline the invitation to participate.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Grades</th>
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<tbody>
<tr>
<td>320</td>
<td>U.S. History</td>
<td>1</td>
<td>10-12</td>
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<td></td>
<td>This course is a survey of United States History, beginning with the colonial period and moving forward chronologically to the present day. Study skills fundamental to history are emphasized, in addition to mastery of the content of the course. Written work, tests, quizzes, and class presentations are all a part of course requirements. Teachers use a variety of teaching methods in the classroom with an emphasis on the discussion of issues and events in U.S. History. <strong>U.S. History is a graduation requirement.</strong></td>
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<tr>
<td>321</td>
<td>U.S. History for International Students</td>
<td>1</td>
<td>10-12</td>
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<td></td>
<td>This course presents a basic survey of United States history for international students who have not studied U.S. history prior to their high school years. One of the highlights is a primary document experience focused on Westtown’s extensive archives. Emphasis in the course is on reading, analytical writing, and speaking. Debates on historical topics are frequent. Students are encouraged to examine U.S. history in comparison with their own countries’ experiences. <strong>This course fulfills the U.S. History graduation requirement.</strong></td>
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<tr>
<td>322</td>
<td>U.S. History (Advanced)</td>
<td>1</td>
<td>10-12</td>
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<td>This course is an intensive, accelerated survey of United States History from the colonial era to the present. Summer reading, independent projects, debates, and research distinguish this course. This course fulfills the U. S. History graduation requirement. <strong>Prerequisite: 90 average in Peace and Justice and departmental approval. This course prepares a student for the SAT subject test in U.S. History.</strong></td>
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<tr>
<td>341</td>
<td>From Hiroshima to 9/11 History</td>
<td>1</td>
<td>11-12</td>
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<td></td>
<td>This course examines the global policies, people, and events that have shaped international relations from the use of the first nuclear weapons to the causes of 9/11 and the resulting global “War on Terror.” During the first semester, the course focuses on the developing bi-polar world as the defining force in world political relations from the end of World War II to the collapse of the Soviet Union. During the second semester, the course focuses on the Middle East as a center of conflict and instability that affects international relations on the world stage. We examine the roots of the Palestinian-Israeli conflict, the establishment of the state of Israel, control of resources in the Middle East/North Africa, the impact of 9/11 on world international relations, relations with Iran, the Arab Awakening, and other current developments. In addition to studying the nature of terrorism in a global context, the class also focuses on the political and economic ascendency of countries such as China and India, and the growing impact of globalization. Current events are an important component of our work throughout the course. The course is reading- and writing-intensive and includes both a research paper and many historical simulations and debates.</td>
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<tr>
<td>342</td>
<td>From Hiroshima to 9/11 (Advanced)</td>
<td>1</td>
<td>11-12</td>
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<td></td>
<td>This course examines the global policies, people, and events that have shaped international relations from the use of the first nuclear weapons to the causes of 9/11 and the resulting global “War on Terror.” We also examine the roots of the Palestinian-Israeli conflict, the establishment of the state of Israel, control of resources in the Middle East/North Africa, the impact of 9/11 on world international relations, relations with Iran, the Arab Awakening, and other current developments. The course is reading- and writing-intensive and includes both a research paper and many historical simulations and debates. <strong>Prerequisite: 90 average in previous history course work and departmental approval.</strong></td>
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<tr>
<td>343</td>
<td>The Holocaust and Genocide (Advanced)</td>
<td>1</td>
<td>11-12</td>
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<td>This seminar involves a comprehensive, full-year exploration of the Holocaust and genocide from multiple perspectives. Study of these events places significant demands upon students, challenging them to develop and draw upon knowledge in economics, history, philosophy, politics, psychology, sociology, and theology, covering centuries of history drawn from a dozen nations. Stories of hope, resistance, and rescue are presented along with policies and practices used to destroy targeted groups. The experiences and roles of perpetrators, victims, and bystanders are considered. Course content also includes other twentieth-century case studies of genocide. The final term is focused on how societies rebuild after experiencing genocide. Most especially this focus is on the nature and uses of truth and reconciliation commissions and the constitution of the Republic of South Africa. The course is reading- and writing-intensive and includes a research paper. <strong>Prerequisite: 90 average in previous history course work and departmental approval. (2017-18)</strong></td>
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353  **Chinese History**  *(Semester 1)*  
½ credit  grades 11-12
This class examines the history of China from the beginning of civilization to the present. The approach is that of a survey with attention given to the geographical, political, religious, artistic and economic histories of China. Throughout the semester, regular attention to current events will help develop students’ awareness of Eastern Asia and the issues and challenges facing China as an emerging world power. Regular homework and quizzes, as well as a research project, will constitute the main course requirements. *(2017-18)*

353  **Modern India**  *(Semester 2)*  
½ credit  grades 11-12
This semester-long elective examines the history of India from the 1857 Indian Rebellion through to the present. The class will have two broad units: the history of the Indian independence movement and India since independence. Throughout the semester, regular attention to current events will help develop students’ awareness of the world's largest democracy and the issues and challenges facing India as an emerging world power. This seminar class will include regular debates, and discussion forum participation. Each of the two units will include a project. *(2017-18)*

354  **Modern World History 1: 1300 – 1800**  *(Semester 1)*  
½ credit  grades 11-12
Modern World History in the fall semester covers human history from approximately 1300 CE through to the late 18th century. It takes a global approach to human history. Broad themes are explored, including the interactions of humans with their environment, the role of disease, the role of religion in conserving culture and propelling change, and the impact of technology. Special attention is given to issues of class division, power distribution, economic activity, and identity formation. Most importantly, the course strives to de-center the Western European model of history embodied in terms such as “the rise of the West.” Discussion and public speaking skills will be stressed. All students are expected to use appropriate media for class presentations. Writing assignments include all the major history essay forms and a major research paper. *(2017-18)*

355  **Modern World History 2: 1800-2000**  *(Semester 2)*  
½ credit  grades 11-12
Modern World History in the spring semester picks up the story of human history from the late 18th century and carries it forward to the present. It takes a global approach to human history. Broad themes are explored, including the interactions of humans with their environment, the role of disease, the role of religion in conserving culture and propelling change, and the impact of technology. Special attention is given to issues of class division, power distribution, economic activity, and identity formation. Most importantly, the course strives to de-center the Western European model of history embodied in terms such as “the rise of the West.” Discussion and public speaking skills will be stressed. All students are expected to use appropriate media for class presentations. Writing assignments include all the major history essay forms as well as a major project culminating in a multi-media presentation to the community. *(2017-18)*

356  **Microeconomics**  *(Semester 1)*  
½ credit  grades 11-12
Economics is the study of how a society organizes itself to use limited resources to produce and share the goods needed to live healthy and fulfilling lives. The fall semester course is an introduction to Microeconomics, or the study of the decisions made by individuals or companies. Grounded in the school's mission with special attention to issues of stewardship and sustainability, Westtown's Economics courses also investigate the nontraditional discipline of Ecological Economics, which probes the limits of the Earth's resources and calls into question the basic assumption of the feasibility of ongoing growth in consumption.  **Prerequisite: Two credits in History, including U.S. History.**

357  **Macroeconomics**  *(Semester 2)*  
½ credit  grades 11-12
Economics is the study of how a society organizes itself to use limited resources to produce and share the goods needed to live healthy and fulfilling lives. The spring semester course is an introduction to Macroeconomics, the study of the dynamics of entire markets. Grounded in the school's mission with special attention to issues of stewardship and sustainability, Westtown's Economics courses also investigate the nontraditional discipline of Ecological Economics, which probes the limits of the Earth's resources and calls into question the basic assumption of the feasibility of ongoing growth in consumption.  **Prerequisite: Two credits in History, including U.S. History.**
**HISTORY**

361  **Latin American History 1 - Ancient Civilizations and Slavery**  ½ credit  grades 11-12
This fall semester course introduces students to the intriguing and diverse social, historical and cultural worlds of Latin America. Although the course proceeds chronologically, case studies from different countries illustrate important trends and events that have shaped (and continue to shape) Latin America. We begin by examining different theories about the peopling of the Americas and then shift to the encounter between European and indigenous cultures. Special emphasis is placed on the development of race and racism during the colonial era. This is a reading- and writing-intensive course that is collaborative in nature with students working together on debates, projects, and leading discussions.

362  **Latin American History 2 - Modern Latin America (Semester 2)**  ½ credit  grades 11-12
The second semester course is devoted to the 20th Century. We use conflict as a lens to examine the evolving relationship of the United States to Latin America by studying the Cuban Revolution, the Dirty War in Argentina, and the civil wars of Central America. Each student also completes a comprehensive independent research paper during the course of the year. This is a reading- and writing-intensive course that is collaborative in nature with students working together on debates, projects, and leading discussions.

358  **Modern Africa, Advanced credit option available (Semester 1)**  ½ credit  grades 11-12
The course will focus on developments within African nations and across the continent since World War II. Attention will be given to similarities and differences across the continent in social, cultural, and political areas. Students will have the opportunity to develop and carry out research in an area of their interest, and will develop a way to share their learning with the broader school community. The course may be taken for regular or advanced credit. Additional readings, length and depth of analysis in assessments, and one additional bi-weekly meeting time are required for advanced credit.

360  **Contemporary Affairs (Advanced) (Semester 2)**  ½ credit  grades 11-12
Students will use primary and secondary resources to research major domestic and international current events. Past topics have included mass incarceration, North Korea’s nuclear claims, and democratic crises in Egypt. As part of the research, students will conduct analyses to understand perspectives, bias, fact and opinion left in or out of texts and news outlets. Students will research prior events that shape the coverage, and cause and effect dynamics of topics currently being covered by news media. Students will use sources from a variety of nations, and news media to prepare presentations for classmates and the school community. Students will use a portfolio to track at least one major news item and assess shifting coverage in major media outlets. Students will use the insight and information they glean to lobby on the issue and will participate in a lobbying workshop through the auspices of the Friends Committee on National Legislation.

363  **Ancient World History 1 - Egypt, India, China (Semester 1)**  ½ credit  grades 11-12
During the fall semester, students will study the ancient civilizations of Sumer, Egypt, India, and China up to the year 1000 A.D. The political, social, economic, and religious developments of each will be studied in depth with comparisons being made in order to examine similarities and differences. Additionally, the relevance of these early societies to the present day will be constantly evaluated. Along with regular homework assignments and quizzes, students will be required to take a cumulative exam and do a research paper. (2017-2018)

364  **Ancient World History 2 - Greece, Rome, and Europe (Semester 2)**  ½ credit  grades 11-12
In Ancient World History 2, the focus is on Ancient Greece, Ancient Rome, and the Middle Ages in Europe until the year 1000 A.D. The political, social, economic, and religious developments which occurred will be examined with particular emphasis on the contributions of these societies to Modern Western Civilization. Along with regular homework assignments and quizzes, students will be required to take a cumulative exam and do a research paper. (2017-2018)
Students must complete three credits of math in grades 9 through 12. Most students take four or five credits of math; a significant number of students reach Calculus or a higher level of math.

Department Philosophy
Westtown’s Math Department exposes students to a rigorous, theoretical development of math systems both algebraic and geometric. Technology is utilized (in the form of calculators, programming languages, and applications software), depending on student needs and teacher interest, while still maintaining a rigorous grounding in writing clear, analytical mathematics.

Students will experience the following essential core experiences in the math curriculum

- Exceptional rigor and challenge for the most advanced math students
- Flexibility in the curriculum
- In-depth exploratory projects that apply math to wider applications
- Emphasis on abstract reasoning skills and problem-solving skills

Courses offered:

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<tr>
<th>Course</th>
<th>Grade Level</th>
<th>Credits</th>
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<td>Algebra 1</td>
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<tr>
<td>Algebra 1 (Advanced)</td>
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<td>Geometry Essentials</td>
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<td>Functions Through Applications</td>
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<td>Algebra 2 Essentials</td>
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<td>Multivariable Calculus (Advanced)</td>
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<td>Precalculus (Advanced)</td>
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Math Independent Research (Adv): Explore Differential Equations, Number Theory, or an advanced topic

Computer Science Courses:

- Introduction to Programming
- Mobile Application Development
- Computer Science 1
- Computer Science 1 (Advanced)

Course Descriptions:

512 Algebra 1 1 credit grade 9 or 10
This course provides the fundamentals in algebraic skills. Topics include linear functions, linear inequalities, systems of linear equations, properties of exponents, operations with polynomials, factoring, and introductory quadratic equations. Vocabulary, function notation, and graphing are emphasized. The course ends with an introduction to solving general quadratic equations. Successful completion prepares students to take Geometry Essentials, Geometry or Geometry (Advanced). Prerequisite: Placement test.

513 Algebra 1 (Advanced) 1 credit grade 9 or 10
This course provides the fundamentals in algebraic skills including linear functions, linear inequalities, systems of linear equations, properties of exponents, operations with polynomials, factoring, and introductory quadratic equations. Vocabulary, functional notation, and graphing are emphasized. Based on the rigor of the course, students will also be introduced to solving general quadratic equations, rational expressions and equations, and advanced word problems. Successful completion prepares students to take Geometry or Geometry (Advanced). Prerequisite: Placement test.

521 Geometry Essentials 1 credit grades 9-11
This course covers the same material as Geometry with less emphasis on writing proofs. This course is designed for students who need more support in math. Successful completion of this course prepares students to take Algebra 2 or Algebra 2 Essentials. Prerequisite: Algebra 1 or Algebra 1 (Advanced).
### 522 Geometry

1 credit  
Grades 9-11

This course covers plane geometry and includes the study of congruency, similarity, ratio and proportion, area, the geometry of the circle, and right triangle trigonometry. Equal time is devoted to writing proofs and the use of computational aspects of basic results. This course includes a review of topics in preparation for Algebra 2. Successful completion of this course prepares students to take Algebra 2, Algebra 2 (Advanced) or Algebra 2 & Trigonometry (Advanced). **Prerequisite: Algebra 1 or Algebra 1 (Advanced).**

### 523 Geometry (Advanced)

1 credit  
Grades 9-11

This is an accelerated Geometry course for the exceptionally strong math student who needs the challenge of a fast-paced course in order to thrive in the classroom. This course covers the same topics as the regular Geometry course but in much greater depth and at a faster pace. Students at this level are expected to develop strong skills in mathematical proof, reasoning and problem-solving skills. The course reviews algebra topics in preparation for Algebra 2. Successful completion of this course prepares students to take Algebra 2, Algebra 2 (Advanced), or Algebra 2 & Trigonometry (Advanced). **Prerequisite: Algebra I (90 or better) or Algebra I (Advanced) (80 or better) and department permission.**

### 531 Algebra 2 Essentials

1 credit  
Grade 11-12

The curriculum of this course covers the fundamentals of Algebra 2 but with less rigor. This course lays the groundwork for future high school math study. The emphasis is on the manipulation of polynomial, logarithmic, exponential, rational and radical expressions, and solving equations and inequalities involving these expressions. Subsequent math courses could include Statistics or Functions with Applications. **Prerequisite: Geometry or Geometry Essentials.**

### 532 Algebra 2

1 credit  
Grades 9-12

Algebra 2 completes the study of grammar of the language of mathematics. Using a functional approach, this course lays the groundwork for all future high school math study. The emphasis is on the manipulation of polynomial, logarithmic, exponential, rational and radical expressions, solving equations and inequalities involving these expressions. Anticipating a graphical emphasis of subsequent math courses, students are introduced to the graphs of associated functions. Next year math courses could include Statistics, Functions with Applications, or Precalculus. **Prerequisite: Geometry Essentials, Geometry or Geometry (Advanced).**

### 534 Algebra 2 (Advanced)

1 credit  
Grades 9-12

Algebra 2 (Advanced) uses the same textbook as Algebra 2 but covers material in greater depth and at a faster pace. Using a functional approach, this course lays the groundwork for all future high school math study. The emphasis is on the manipulation of polynomial, logarithmic, exponential, rational and radical expressions, solving equations and inequalities involving these expressions. Anticipating a graphical emphasis of subsequent math courses, students are introduced to the graphs of associated functions. Successful completion of Algebra 2 (Advanced) prepares students to take Precalculus (Advanced). **Prerequisite: Geometry (90 or better) or Geometry (Advanced) and department permission.**

### 533 Algebra 2 & Trigonometry (Advanced)

1 credit  
Grades 9-12

Algebra 2 & Trigonometry (Advanced) is an accelerated course for the exceptionally strong math student who needs the challenge of a fast-paced course in order to thrive in the classroom. The course covers the same topics as the regular Algebra 2 and Precalculus. Successful completion of this course prepares students to take Calculus 1. **Prerequisite: Geometry (95 or better AND department permission) or Geometry (Advanced) (90 or better) AND department permission.**

### 541 Functions Through Applications

1 credit  
Grades 11-12

This course strengthens algebra skills and begins the study the functions normally covered in a Precalculus course through their applications to the physical sciences, economics, and business phenomena. Unlike Precalculus, where these topics are developed from a rigorous theoretical foundation, students will encounter trigonometric, logarithmic, exponential, polynomial and rational functions as they emerge from application problems. The course will emphasize graphs, problem solving skills, and mathematical modeling using appropriate software. Students will also learn to communicate their solutions through writing and presentations. Successful completion of this course prepares students to take Precalculus or Statistics. **Prerequisite: Algebra 2 Essentials or Algebra 2.**
**541 Precalculus**  
1 credit  
grades 9 - 12  
Seeking to prepare students for Calculus, the course develops functions of a real variable – their domains, ranges and graphs. Problem solving and modeling with trigonometric, logarithmic, exponential, polynomial and rational functions is the focus of this course. **Prerequisites:** 85 or higher in Algebra 2, 80 or higher in Algebra 2 Adv. This course covers material from the SAT math Level 2 test.

**542 Precalculus (Advanced)**  
1 credit  
grades 9 - 12  
For students ready for an accelerated approach, this course covers all topics from Precalculus in a rigorous problem-solving format. Additional topics may include polar graphing, parametric curves, sequences and series, probability, limits and derivatives of polynomial functions. **Prerequisites:** A grade of 90% or higher in Algebra 2, a grade of 80% or higher in Algebra 2(Advanced) and department permission.

**545 Statistics**  
1 credit  
grades 11 - 12  
This course uses real-world data to develop an understanding of data summary, probability distributions, sampling, regression and correlation, and hypothesis testing. Experimentation, simulation, and theoretical approaches to the concepts will be utilized. Using this foundation, students design a study and interpret the data using appropriate tools. **Prerequisites:** Algebra 2 and department permission.

**550 Calculus 1**  
1 credit  
grades 10 - 12  
This course reviews the concept of a limit and then provides a full development of both differential and integral calculus. The material is both a base for more advanced mathematics and a tool for solving application problems in a wide array of disciplines. Intuitive understanding and development of content through group work are key parts of this course. **Prerequisites:** Precalculus (80 or higher) and department permission.

**551 Calculus 1 (Advanced)**  
1 credit  
grades 10 - 12  
This course reviews the concept of a limit and then provides a full development of both differential and integral calculus. The material is both a base for more advanced mathematics and a tool in a wide array of disciplines. This course is taught with a rigorous theoretical approach. Students who successfully complete the course can take the AB level Advanced Placement exam. **Prerequisites:** Precalculus (90 or higher) or Advanced Algebra 2 & Trigonometry (80 or higher) and department permission. This course prepares students who have performed well to take the AP exam in Calculus AB.

**554 Introduction to Programming: Building with Software**  
½ credit  
grades 10 – 12  
This course provides an introduction to computer programming for students with no previous experience. Fundamental concepts of programming are taught using languages such as Alice, Python, and Java. Emphasis is placed on developing collaborative problem-solving capabilities, leadership, and presentation skills as students work on individual, team, and full-class projects. The ethics of software will be introduced. **Prerequisites:** a final grade of 75 or higher in Geometry and a year-long science course, and the department permission.

**555 Computer Science 1(Advanced)**  
1 credit  
grades 10 – 12  
**556 Computer Science 1**  
These courses provide the opportunity for students to bring their prior computer programming experience to bear on integrated problem investigations, analyses, and solutions. After initial programming challenges, students will solve problems from humanities, science, and math contexts and will be coached in using data to investigate and analyze these questions. Emphasis is placed on the use of data, developing collaborative problem-solving capabilities, leadership, and presentation skills as students work on individual, team, and full-class projects. Computer Science 1 (Advanced) will use XCode for app development. Computer Science 1 will use AppInventor app development. Students may include work using computer-aided design software. **Prerequisites:** a final grade of 80 or higher in one advanced level course in either History, English, or World Languages, Math or Science, or permission of the department.
561  **Calculus 2 (Advanced)**  
1 credit  
**grades 11 - 12**  
As a continuation of Calculus I (Advanced), this course develops fully the following topics: techniques of integration, infinite series, calculation of functions in parametric and polar form. The course ends with an introduction to matrix algebra. Students are expected to share in the presentation of the material. Additional topics are included based on the special interests of students and instructor. **Prerequisite:** *Calculus I Advanced with a final grade of 80 or higher or Calculus 1 with a final grade of 90 or higher. and department permission.* This course prepares students who have performed well to take the AP exam in Calculus BC.

562  **Linear Algebra (Advanced)**  
½ credit  
**grade 12**  
This course includes the study of vectors, vector spaces, linear transformations, inner products, eigenvalues, eigenvectors and the application of these topics to Markov chains and difference equations. Students who register for this course must also take Multivariable Calculus. **Prerequisites:** *Calculus 2 with an 80 or higher and department permission.*

563  **Multivariable Calculus**  
½ credit  
**grade 12**  
In this course, students study Multivariable Calculus; including differential, integral and vector calculus for functions of more than one variable. **Prerequisite:** *Linear Algebra and department permission.*

565  **Mobile Application Development**  
½ credit  
**grades 10-12**  
This course provides an introduction to creating apps for mobile devices for students with some previous programming experience. App development is learned using the students’ own devices and internet study tools. Emphasis is placed on developing collaborative problem-solving capabilities and solving problems that matter as students work on individual, team and full class projects. **Prerequisite:** *Algebra 2, Intro to Programming or equivalent and department permission.*

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**SCIENCE**

Students must take at least two full years of lab sciences. Our new science curriculum will introduce students to all four of the core sciences in the first two years of study. Students who have completed years 1 & 2 can choose from among a variety of courses. In order to develop a balanced program of study in the sciences, we encourage students to take at least two semesters of Physics, Chemistry and Biology in their high school program.

**Science Core Requirements: Years 1 & 2**

**Year 1:**  
Physics 1 (Newtonian Mechanics) & Chemistry 1 (Atoms to Reactions)  
Physics 1 Adv (Newtonian Mechanics) & Chemistry 1 Adv (Atoms to Reactions)

**Year 2:**  
Biology 1 (The Cell) & Biology 2: Ecology  
Biology 1 Adv (The Cell) & Biology 2 Adv: Ecology  
**Students may choose an additional semester course in Design Engineering, Physics or Chemistry in the same year as level 2 courses, if their schedule permits**

**Upper Level Course Options: Years 3 & 4**

**Physics—semester courses**
- Physics 2: Waves & Motion  
- Physics 2 Adv: Waves & Motion  
- Physics 3 Adv: Electricity and Magnetism  
- Physics 4 Adv: Modern Physics  
- Digital Electronics & Logic Design*  
- Astrophysics  

**Chemistry—semester courses**
- Chemistry 2: Moles & Stoichiometry  
- Chemistry 2 Adv: Moles & Stoichiometry  
- Chemistry 3 Adv: Chemical Bonding & Equilibrium  
- Chemistry 4 Adv: Chemical Reactions  
- Environmental Chemistry  
- Organic Chemistry Adv
Biology—semester courses
Biology 3: Evolution
Biology 3 Adv: Evolution
Biology 4 Adv: Human Anatomy & Physiology
Biology of Disease
Molecular Biology (Adv)*

Ecology—semester courses
Environmental Sci 1: Earth Science
Environmental Sci 2: Sustainability Science

Additional Courses
Design Engineering 1
Design Engineering 2
Scientific Research (Adv): Molecular Biology or Biochemistry

* = offered in 2017-18

Department Philosophy
Through a host of challenging course offerings, the Science Department aids students in their understanding of the natural world. Faculty members encourage students to question, explore their surroundings, seek answers, and look at the world from different perspectives. Humans profoundly impact the world today, and a deeper understanding of this impact can produce individuals better able to live and guide the world with responsible stewardship.

Students will have the following core experiences in their study of science:
- A sequence which builds from the most basic physical force to complex life processes
- Scientific approach in every course informing students about social and global concerns
- Emphasis on applied learning, with first-hand experience designing experiments, organizing and analyzing data, and interpreting results
- Labs which use the school’s diverse campus ecosystems to explore topics and provide examples
- Collaboration as a core skill in every course; frequent group work and lab work

Course descriptions:

Year 1: Physical Sciences—Physics 1 & Chemistry 1

610 Physics 1: Newtonian Mechanics ½ credit grades 9-11
In this hands-on and laboratory-centered course, students will learn to describe and analyze motion and its causes. Students will use the mathematical tools that scientists use in the laboratory including equations, graphical analysis, and computers. Modern computer sensors and specialized graphing software will aid in data collection. Topics include physical quantities and measurement, kinematics in one and two dimensions, forces and Newton’s Laws, universal gravitation, work, energy, and momentum. Co-requisite: Algebra 1.

611 Physics 1 (Advanced): Newtonian Mechanics ½ credit grades 9-11
This advanced course is available to those students with strong math backgrounds. Algebra is used extensively to model physical systems, and trigonometry is introduced for two-dimensional analyses. Inquiry-based hands-on labs are used throughout this course as students learn to describe and analyze motion and its causes. Topics include physical quantities and measurement, kinematics in one and two dimensions, forces and Newton’s Laws, universal gravitation, work, energy, and momentum. Admission by placement test.

612 Chemistry 1: Atoms to Reactions ½ credit grades 9-11
This is an introductory Chemistry course emphasizing concepts and quantitative problem solving. Laboratory work gives students extensive hands-on experience with chemical reactions and develops strong analytical skills. Topics include physical and chemical properties, atomic structure, electron configurations, the periodic table, periodic trends, nomenclature, chemical reactions, and acid and base chemistry. Students should have a solid background in algebra.
613 Chemistry 1 (Advanced): Atoms to Reactions ½ credit  grades 9-11
This is an introductory Chemistry course that moves at a faster pace than Chemistry 1. The course introduces students to physical and chemical properties, atomic structure, electron configurations, the periodic table, periodic trends, nomenclature, chemical reactions, and acid and base chemistry with a greater emphasis on analytical problem solving and interpretation of laboratory data. Students are exposed to more abstract thinking in terms of applications of mathematics. Prerequisite: department approval.

Year 2: Life Sciences—Biology 1 and Ecology

614 Biology 1: The Cell as a Basic Unit of Life ½ credit  grades 10-12
This course establishes a solid foundation in modern biology covering the cell as the basic unit of life. The structures and functions of cellular organelles will be discussed with emphasis on DNA as the molecule that controls cell function. Additional cellular functions include the generation of energy during cellular respiration and the processed of cell division. Using microscopes and modern techniques such as electrophoresis, students will complete lab work that complements and underlines the concepts learned in class. Prerequisites: Physics 1 and Chemistry 1.

615 Biology 1 (Advanced): The Cell as a Basic Unit of Life ½ credit  grades 10-12
This course covers the same material as Biology 1, but in greater depth and at a faster pace. It is a reading- and writing- intensive course in which students are asked to read primary and secondary sources in scientific periodicals. Using these resources, students complete an annotated bibliography on a topic relating to cell structure and function. Students in this class also complete more advanced lab work, especially in molecular biology. Significant independent work will be required outside of coursework. Consultation with the instructor is essential. Prerequisites: Grades of 90 or better in Physics 1 and Chemistry 1 and department approval.

624 Biology 2: Ecology ½ credit  grades 11-12
This one-semester course serves as an introduction to the field of ecology. We will start by identifying key global ecological concepts to provide context for identifying and interpreting the variety of ecosystems found on our campus, which are representative of the major ecological systems found in the north eastern United States. Students will gain experience in both field and laboratory investigation techniques. A key goal of this course is also to improve analytical and writing skills through analysis and interpretation of ecological data. Prerequisite: Completion of Biology 1.

625 Biology 2 (Adv): Ecology ½ credit  grades 11-12
This one-semester course serves as an introduction to the field of ecology. We will start by identifying key global ecological concepts to provide context for identifying and interpreting the variety of ecosystems found on our campus, which are representative of the major ecological systems found in the north eastern United States. Students will gain experience in both field and laboratory investigation techniques. Data generation, analysis and interpretation are integral parts of this course and students will finish this course by designing and implementing their own extended (4 week) ecological field experiment. Prerequisite: Grade of 90 or better in Biology 1 or department approval.

Year 3 & 4: Upper Level Courses

Biology options:

632 Biology 3: Evolution and the Diversity of Life ½ credit  grades 11-12
Students in this course investigate this pillar of modern biology. A study of the evidence for evolution presented by Darwin, as well as all the evidence presented by modern techniques of comparative biochemistry and genetics will lead to a comparative study of representative organisms in each kingdom. Laboratory work will include modern techniques such as electrophoresis, as well as examination of preserved specimens. Prerequisite: Biology 1.
642 Biology 4 (Adv): Human Anatomy and Physiology ½ credit grades 11-12
Beginning with an overview of the hierarchy of organization within organisms and anatomical terms, this course will examine in-depth the structure and function of select human systems. Particular attention will be paid to how systems maintain homeostasis and how this balance can be upset by disease. Laboratory exercises will provide insight into the workings of each system. Prerequisite: Grades of 90 or better in Biology 1 and Biology 2 and department approval.

647 Molecular Biology (Advanced) ½ credit grades 11-12
This course expands and deepens the students understanding of DNA as the “text” of life. Students will go beyond the groundwork laid in their foundation course and develop a more detailed understanding of the processes of protein synthesis, genetic engineering, cloning, and many other applications of molecular biology. The course is lab intensive and will introduce the students to many advanced lab techniques such as PCR and Western Blotting. Prerequisites: Grades of 90 or better in Biology 1, Biology 2, and Biology 3 or department approval. (Offered in 2017-18)

648 Biology of Disease ½ credit grades 11-12
This course will explore human infectious diseases, including their causation, transmission, symptoms, diagnosis, treatment, prevention, and cure, if known. The course will begin with a study of the immune system, epidemiology, mathematical modeling of infectious disease spread, public health, and preventative health care (e.g., vaccination). In addition to histology (the study of the microscopic anatomy), the laboratory portion of this course will employ case studies of infectious disease throughout history, such as the bubonic plague of the Late Middle Ages, the influenza pandemic of 1918, the polio epidemic in the United States in 1952, the emergence of Legionnaires’ disease in Philadelphia in 1976, the emergence of the human immunodeficiency virus in the early 1980s, and the Ebola virus outbreak of 2014-2015. Other infectious diseases that may be studied include: anthrax, Hansen disease (leprosy), Lyme disease, malaria, polio, rabies, smallpox, and tuberculosis. Prerequisite: Biology 1, Biology 2, Biology 3 and department approval.

Chemistry Options:

622 Chemistry 2: Moles and Stoichiometry ½ credit grades 11-12
In this course, students will continue their study of chemistry with topics including chemical reactions, moles, stoichiometry, and gases. Laboratory experiments are more complex, relying on students’ previous experience in lab and including analysis of more sophisticated data. Prerequisite: Chemistry 1.

623 Chemistry 2 (Advanced): Moles and Stoichiometry ½ credit grades 11-12
In this course students will continue their study of chemistry with topics including, moles, stoichiometry, and gases. As this is an advanced course, students will progress to studying redox reactions and electrochemistry, thermochemistry, and nuclear chemistry. Laboratory experiments are more complex, relying on students’ previous experience in lab and including analysis of more sophisticated data. Prerequisite: Chemistry 1 and department approval.

631 Chemistry 3 (Advanced): Chemical Bonding & Equilibrium ½ credit grades 11-12
This advanced course offers an intensive study of bonding, equilibrium, and acid/base chemistry. We will explore several theories of bonding, including Lewis Structures, VSEPR Theory, Hybridization, and Molecular Orbital Theory. Applications of bonding will be expanded to organic chemistry, and this course naturally links to studies in the elective, Organic Chemistry. The course concludes with an investigation of equilibrium and its applications to acid/base chemistry and other branches of chemistry. Students will conclude the course with a self-designed independent project. Prerequisites: Grade of 90 or better in Chemistry 1 and Chemistry 2 and department approval.

641 Chemistry 4 (Advanced): Chemical Reactions ½ credit grades 11-12
This course focuses on the applications of chemical reactions in everyday life. Example topics include learning about the basics of pharmacology with the production of aspirin, exploring electrochemistry with the creation of batteries, investigating the chemistry of surfactants and intermolecular forces with the production of soap, and studying the chemistry of polymers with the production of simple plastics. The direction and development of the course topics will be determined by student interest. Prerequisites: Chemistry 1 and Chemistry 2 and department approval.
645 Organic Chemistry ½ credit  grades 11-12
This course begins with the study of the nature and importance of carbon compounds. Basic organic nomenclature will be covered, along with the nomenclature of functional groups. Students will study the three-dimensional structure of organic molecules, stereoisomerism, chirality, and enantiomers. The structure of molecules will become the springboard to understanding basic organic reactions, including substitution, elimination, and addition reactions. Nucleophilic and electrophilic reaction mechanisms will also be covered. Lab techniques will include extraction of compounds, partitioning of solutions, absorption and chromatography. Students will conclude the course with a self-designed synthesis or extraction project.  Pre-requisites: Grades of 90 or better in Chemistry 1 and Chemistry 2 and department approval.

646 Environmental Chemistry ½ credit  grades 11-12
Environmental Chemistry is the science of creating safe, energy-efficient, and non-toxic products and processes. It includes the design of chemical products and processes that reduce or eliminate the generation of hazardous substances. In this lab-based course, students will learn about the twelve principles of green chemistry. The majority of this class will focus on investigating various sources of chemical hazards and possible green alternatives. A culminating project at the end of the semester will involve selecting a specific chemistry lab, evaluating the lab, and designing an equivalent green chemistry alternative. Prerequisites: Chemistry 1 and Chemistry 2. (Offered in 2017-18)

Environmental Science Options:
616 Environmental Science 1: Earth Science ½ credit  grades 11-12
This course explores the foundations of earth science. Topics covered include geology and plate tectonics, meteorology and climate, and key earth cycles such as the water, carbon and nitrogen cycles. As a result of taking this course students will better understand how human activities impact the natural world. Students will learn key skills required to utilize GIS mapping techniques. Earth Science is a laboratory-oriented course using experimentation to better understand the processes that govern phenomena we observe in the natural world. Prerequisite: Biology 1 and Biology 2.

626 Environmental Science 2: Sustainability Science ½ credit  grades 11-12
Sustainability Science focuses on the most pressing environmental issues facing the human race today and what is being done to solve these complex problems. Topics include water resource quality and quantity, waste and the product lifecycle, food resources and sustainable agriculture, energy conservation and sources, and climate change. Laboratory experiments and research projects will be combined to better understand the scientific principles involved in each of these key topic areas. A key component of this course will be reading scientific journal articles for the purpose of learning how to interpret scientific data and research results. Students will be expected to formulate a better understanding of these important topics based on scientific data and proven research. Prerequisite: Biology 1 and Biology 2.

649 Environmental Science 3: Environmental Problem Solving ½ credit  grades 11-12
In this course, students will dive deep into a topic of their choice that they have been previously introduced to in ecology, earth science, or sustainability science. Students choose an environmental problem facing Westtown School, the local region, or their home town. During the first half of the course, students will be required to research their chosen topic and report their findings in a seminar style presentation including identifying the major scientific principals involved and who is most impacted by this problem. Once students have developed a working knowledge of their chosen problem, they will then research what is being/can be done to solve this problem. They will then design a course of action to solve their problem and present their results to their peers, the faculty, and invited guests who are stakeholders and decision-makers related to the chosen topics. Prerequisites: Biology 2 and at least one of the following: Environmental Science 1 or Environmental Science 2. (Offered in 2017-18)

Physics Options:
620 Physics 2 - Waves and Periodic Motion ½ credit  grades 11-12
In this hands-on and laboratory-centered course, students will continue their study in Physics by looking at various types of periodic motion and the waves caused by these motions. Topics include Kepler's Laws, rotational motion, simple harmonic motion, waves, sound, light, and geometric optics. Prerequisite: Physics 1 or Physics 1(Adv).
**621 **Physics 2 (Advanced) - Waves and Periodic Motion  
½ credit  
grades 11-12  
This advanced course is available to those who have demonstrated a high degree of proficiency in Physics 1. In this hands-on, laboratory-centered course, students will continue their study in Physics by looking at various types of periodic motion and the waves caused by these motions. Topics include Kepler's Laws, rotational motion, simple harmonic motion, waves, sound, light, and geometric optics.  
Prerequisite: Physics 1(Adv) or Physics 1 with department approval.

**630 **Physics 3: Electricity and Magnetism (Advanced)  
½ credit  
grades 11-12  
Students will explore electromagnetic phenomena and their causes in this calculus-based physics course. Investigations of topics will include inquiry-driven hands-on labs, computer simulations, and supplemental readings. Topics include electric forces and fields, electric potential and potential energy, capacitance, DC and AC circuits, magnetic forces and fields, and electromagnetic induction. Upon completion of the course, students may opt to take the SAT Physics Subject Test and/or the AP Physics (B or C) Test.  
Co-requisite: Calculus 1 or higher.  
Prerequisite: Physics 2(Adv) or Physics 2 with department approval.

**640 **Physics 4 (Advanced): Modern Physics  
½ credit  
grades 11-12  
In this advanced course, students will explore developments in the field of physics from the 20th century and onward. Investigations of topics will include inquiry-based hands-on labs, computer simulations, and supplemental readings. Topics include special relativity, physical optics, black-body radiation, the development of the modern quantum theory, atomic structure, and nuclear physics.  
Co-requisite: Calculus 1 or higher.  
Pre-requisite: Physics 2(Adv) or Physics 2 with department approval.

**644 **Astrophysics  
½ credit  
grade 11-12  
This survey course provides an introduction to the physics of the universe. Students interested in the field will gain an understanding of the behavior of celestial objects and how they interact with each other. By first studying the history of astronomy, students will appreciate how the way in which we look at the sky has changed over time. The focus will be extended outward to study our own solar system, and then on to other galaxies. Stellar processes, including their birth and evolution will be explored, as will the evolution and eventual fate of the broader universe. Students should be capable of doing independent work and be willing to participate in class discussions.  
Prerequisite: Physics 2(Adv) or Physics 2.

**Research and Design Engineering Options:**

**650-651 **Design Engineering 1, 2  
½ credit  
grades 10, 11, 12  
This course introduces students to the fundamentals of mechatronics, the integration of design thinking and CAD with mechanical, electrical, sensor and control systems. Using a modular kit system, students will collaboratively develop robotics solutions to challenges through project-driven work. Students who complete Design Engineering 1 will be prepared to take on the more complex, self-initiated challenge of Design Engineering 2.  
Design Engineering 2 may be taken with department permission.

**652 **Literature Review and Protocol Development  
½ credit  
grades 11-12  
In the spring prior to entering Scientific Research (Advanced), students choose their research focus and read primary sources to prepare for their year-long research project. From their reading, students will prepare an annotated bibliography and write a review paper encompassing the work being done in their field of interest. Students will hone their presentation skills by discussing their work in weekly lab meetings. Another important aspect of the course will be development of the research protocol to be used the following year.  
Prerequisite: Approval of the department.

**699 **Scientific Research (Advanced)  
1 credit  
grade 11-12  
This research course will require a great deal of independent work, both in and out of the lab. Students will participate in research in the areas of molecular biology, biochemistry, or field ecology. Throughout the year, students will work on research projects in the lab and will continue to review the literature for developments in their field. A bi-weekly lab meeting will provide students an opportunity to discuss their work with their peers and interested faculty. The year will culminate in the preparation of a formal lab report written in a style suitable for publication in a peer-reviewed journal and the presentation of a scientific poster.  
Prerequisite: one full credit of Physics, one full credit of Chemistry, and one full credit of Biology, in addition to department approval.
WORLD AND CLASSICAL LANGUAGES

Students are required to take at least two consecutive years of a single foreign language; we recommend that they take at least three years of a foreign language. While 70 is a passing grade to receive credit, students with a grade below 80 are expected to complete work over the summer to remediate their skills in order to achieve the expected proficiency to proceed onto the next level of study.

Department Philosophy

The World and Classical Languages Department aims to prepare the Westtown students for a world in which people of diverse linguistic and cultural backgrounds collaborate together in the workplace of the future. Immersion in additional languages and working toward fluency are essential tools for a global world.

Students who complete four years of language study will have gained:

- **Daily language immersion** in the classroom, providing a high level of proficiency in communicating spontaneously in the spoken languages
- **Appreciation for a culture and way of thinking** different from the student’s own
- **An ability to communicate** by reading, hearing and speaking at least one additional language
- **Exchange opportunities** in Cuba, Rome and Martinique, where participants gain first-hand immersion experience and close connections with host families

Course Descriptions:

**FRENCH**

**411 French 1 (for Novice Learners)**

1 credit  
grades 9-12

This course is developed with the objective of introducing students to the basic principles of the French language. Students will develop all four linguistic competencies (listening, speaking, reading and writing). At the end of the year, students will be able to participate in short conversations in French, and to read simple narratives in the language using the present tense to a high degree of proficiency. In the cultural aspect of the course, the students will be introduced to the many and different French-speaking countries. Listening and speaking exercises, the textbook website, integration of technology applications, and authentic videos will supplement this course. At the completion of this course, students should achieve proficiency levels of novice mid to novice high as defined by the American Council on the Teaching of Foreign Languages.

**412 French 2 (for Beginners)**

1 credit  
grades 9-12

This course is a sequential continuation of French I. Students will continue to refine listening, speaking, reading and writing skills and deepen their understanding of grammar, vocabulary, and culture. Emphasis will be placed largely on the tenses of the indicative mood, although some attention will be given to the imperative and subjunctive moods. This increased knowledge of grammar combined with a more extensive vocabulary will strengthen the student’s ability to communicate in French. Classes will incorporate various readings, including short stories and newspaper articles. Students will also listen to and analyze songs, watch video clips, write short compositions and engage in regular classroom discussions. In addition to a more advanced understanding of French at a linguistic level, students will examine the geography, history, and arts of the Spanish-speaking world. At the completion of this course, students should achieve proficiency levels of novice high to intermediate low as defined by the American Council on the Teaching of Foreign Languages. **Prerequisite:** Passing grade and/or Novice high proficiency levels as defined by ACTFL.

**413 French 3 (for Intermediate Level 1 Learners)**

1 credit  
grades 9-12

This course builds on foundational linguistic and cultural competencies acquired in French 1 and 2. Students will continue to build vocabulary through more advanced interpretive activities as well as engage in real-life interpersonal/intrapersonal/presentational action-based tasks in every unit covered. In terms of structural language, students will learn the remaining tenses of the indicative mood and develop a fundamental understanding of the subjunctive. They will also begin to express more complex ideas both in written and oral dimensions, expressing their feelings and opinions in a concise manner. Students completing this course should achieve proficiency levels in the intermediate low to intermediate mid-range as defined by the American Council on the Teaching of Foreign Languages. **Prerequisite:** Passing grade and/or Intermediate proficiency level as defined by ACTFL.
French 4 (Advanced) (for Intermediate Level 2 Learners) 1 credit  grades 10-12
The objective of this course is to develop students’ proficiency of the French language to the intermediate level in all four skills of second language acquisition: listening, reading, speaking and writing. This course systematically reviews previously learned grammar concepts and concludes the study of French grammar with an in-depth study of the subjunctive mood. Students will expand their knowledge of vocabulary and begin the reading of authentic literature from Francophone writers. Furthermore, aspects of the current history and culture of the Francophone world will be examined through student’s adoption of a country to study all year long. The study of art, film and music as cultural texts will be introduced. Students who choose to do so will also prepare to take the Subject SAT with Listening French Language exam developed by the College Board.  
Prerequisite: Passing grade and/or Intermediate mid-range proficiency level as defined by ACTFL.

French 5 & 6 (Advanced) (for Advanced Learners) 1 credit  grades 11-12
This course is intended to help students develop a high level of proficiency in each of the four skills of second language acquisition: listening, reading, speaking and writing. It is a seminar equal to a fifth or sixth semester college-level French course. The spiraling curriculum focuses on integrating each of the aforementioned skills to communicate verbally and in writing at an advanced level. This course is conducted exclusively in French and the students are required to communicate in a total immersion setting. Throughout the year, students are exposed to authentic audio and video recordings, films, and literature intended for native speakers. Furthermore, they will study the current events of French-speaking countries and engage in routine presentational tasks. Students who choose to do so will also prepare to take the AP French Language exam developed by the College Board.  
Prerequisite: Passing grade, departmental approval, and/or Advanced proficiency level as defined by ACTFL.

Chinese 1 (For Novice Learners) 1 credit  grades 9-12
This introductory course is designed for students who have little or no prior exposure to Chinese. The main objective of the course is to help students build understanding of Chinese language and culture with themes and subjects that relevant to their daily lives focusing on interpersonal, interpretational and presentation skills. The pedagogical instruction employs a spiral-up, step-by-step approach that reinforces oral communication and a solid foundation of character recognition and writing. After one year of instruction, the students should achieve proficiency level of novice mid to novice high as defined by ACTFL. They will be able to 1) participate in a simple conversation on very familiar topics using memorized words and phrases, 2) respond to simple questions, 3) understand words and phrases on very familiar topics, 4) provide information about oneself, and 5) recognize 200 characters and reproduce approximately 150 characters.

Chinese 2 (for Beginners) 1 credit  grades 9-12
The objective of the course is to help students build a solid foundation of the four basic skills - listening, speaking, reading, and writing in an interactive and communicative learning environment. At the completion of this course, the students should achieve proficiency level of novice high to intermediate low as defined by ACTFL. They will be able to 1) ask and answer questions in order to carry on a conversation about daily activities, friends and family, preferences, 2) understand the main ideas of some short, simple authentic texts, and 3) use a series of sentences to make presentations about familiar topics. In order to reinforce students’ listening and speaking abilities, short Chinese films and video clips are integrated into the curriculum.  
Prerequisite: Passing grade and/or Novice high proficiency levels as defined by ACTFL.

Chinese 3 (for Intermediate Level 1 Learners) 1 credit  grades 10-12
In this intermediate course, students will develop greater understanding of Chinese culture and daily life and continue building a solid foundation of the four basic skills – listening, speaking, reading, and writing. By the end of this course, students should achieve proficiency levels in the intermediate low to intermediate mid-range as defined by ACTFL. They should be able to 1) carry on a longer conversation about friends, family, home, daily life, interests, personal opinions, and preferences, 2) ask and respond to questions giving some explanations, 3) give a presentation on a topic of personal interest or experience, 4) tell a story that include some details and descriptions, 5) write about one’s daily life, interests, and experiences in a series of sentences and short paragraphs. In order to develop students’ listening and speaking ability, short Chinese movies or television shows or video clips will be integrated into the course curriculum.  
Prerequisite: Passing grade and/or Intermediate proficiency level as defined by ACTFL.
484  Chinese 4 (Advanced)  (for Intermediate Level 2 Learners)  1 credit  grades 10-12
This is an intermediate-advanced language class that aims at laying a solid foundation in language form and accuracy for students. By the end of this course, the students should achieve proficiency levels in the intermediate mid to intermediate high range. The students will be able to 1) initiate and maintain an extended conversation with ease and confidence about work, school, recreation, personal interests and areas of competence, 2) discuss events that happened or will happen, 3) write short compositions on topics of interest, 4) use sequencing and transition words to connect sentences into paragraphs, and 5) write about an event in different time frames. Reading and audio materials are provided and discussed. In order to develop students’ listening and speaking ability, short Chinese movies or television shows or video clips will be integrated into the course curriculum.
Prerequisite: Passing grade and/or Intermediate mid-range proficiency level as defined by ACTFL.

485-6  Chinese 5-6 (Advanced)  (for Advanced Learners)  1 credit  grades 11-12
This course is designed for students with advanced level training but who need some further refinements on pronunciation, grammar, and vocabulary usage. This course also stresses oral discussion, and accuracy of language performance. By the end of the course, the students are able to sustain a conversation on a wide variety of topics, asking and responding to a variety of questions, making recommendations, describe in detail and narrate in all major time frames, and handle a complicated or unexpected event. By the end of the year, students are expected to have mastered the 650-800 most commonly-used characters and to have the ability to express themselves coherently in a series of sentences. Writing and oral presentations in Chinese are required in classroom. In addition, Mandarin 5 class will provide a broader perspective on Chinese culture, more up-to-date language components, such as authentic linguistic materials and new illustrations are introduced with a view towards reflecting cultural life in the dynamic and rapidly changing contemporary China.

SPANISH
450  Spanish 1 (for Novice Learners)  1 credit  grades 9-12
This beginning course will introduce students to the basic principles of the Spanish language. Students will develop all four linguistic competencies (listening, speaking, reading, and writing). At the end of the year, students will be able to participate in short conversations in Spanish, and to read simple narratives in the language using the present tense and the preterite to a high degree of proficiency. In the cultural aspect of the course, the students will be introduced to the many and different Spanish-speaking countries. Listening and speaking exercises, the textbook website, integration of technology applications, and authentic videos will supplement this course. At the completion of this course, students should achieve proficiency levels of novice mid to novice high as defined by the American Council on the Teaching of Foreign Languages.

451  Spanish 1 & 2 (Accelerated)  1 credit  grades 9-12
After an initial assessment period in Spanish 1, a group of exceptionally-motivated and strong language learning students are selected to participate in Spanish 1 & 2 (Accelerated), a fast-paced class. All instruction and classroom participation in this course is conducted entirely in Spanish. The overall goal is to guide and prepare motivated students to use the Spanish language naturally and effectively. The course provides a maximum level of exposure to the target language and emphasizes oral proficiency. Strong overall performance qualifies students to enter Spanish 3 the following academic year.

452  Spanish 2 (for Beginners)  1 credit  grades 9-12
This course is a sequential continuation of Spanish 1. Students will continue to refine listening, speaking, reading, and writing skills and deepen their understanding of grammar, vocabulary and culture. Emphasis will be placed largely on the tenses of the indicative mood, although some attention will be given to the imperative and subjunctive moods. This increased knowledge of grammar combined with a more extensive vocabulary will strengthen the student’s ability to communicate in Spanish. Classes will incorporate various readings, including short stories and newspaper articles. Students will also listen to and analyze songs, watch video clips, write short compositions and engage in regular classroom discussions. In addition to a more advanced understanding of Spanish at a linguistic level, students will examine the geography, history, and arts of the Spanish-speaking world. At the completion of this course, students should achieve proficiency levels of novice high to intermediate low as defined by the American Council on the Teaching of Foreign Languages. Prerequisite: Passing grade and/or Novice high proficiency levels as defined by ACTFL.
Spanish 3 (for Intermediate Level 1 Learners) 1 credit grades 10-12
This course builds on foundational linguistic and cultural competencies acquired in Spanish I and II. Students will continue to build vocabulary through more advanced interpretive activities as well as engage in real-life interpersonal/intrapersonal/presentational action-based tasks in every unit covered. In terms of structural language, students will learn the remaining tenses of the indicative mood and develop a fundamental understanding of the subjunctive. They will also begin to express more complex ideas both in written and oral dimensions, expressing their feelings and opinions in a concise manner. Students completing this course should achieve proficiency levels in the intermediate low to intermediate mid-range as defined by the American Council on the Teaching of Foreign Languages. Prerequisite: Passing grade and/or Intermediate proficiency level as defined by ACTFL.

Spanish 4 (Advanced) (for Intermediate-Level 2 Learners) 1 credit grades 10-12
The objective of this course is to develop students’ proficiency of the Spanish language to the intermediate level in all four skills of second language acquisition: listening, reading, speaking, and writing. This course systematically reviews previously learned grammar concepts and concludes the study of Spanish grammar with an in-depth study of the subjunctive mood. Students will expand their knowledge of vocabulary and begin the reading of authentic literature from Hispanic writers. Furthermore, aspects of Latin American and Spanish current history and culture will be examined through student’s adoption of a country to study all year long. The study of art, film and music as cultural texts will be introduced. Students who choose to do so will also prepare to take the Subject SAT with Listening Spanish Language exam developed by the College Board. Prerequisite: Passing grade and/or Intermediate mid-range proficiency level as defined by ACTFL.

Spanish 5 & 6 (Advanced) (for Advanced Learners) 1 credit grade 12
This course is intended to help students develop a high level of proficiency in each of the four skills of second language acquisition: listening, reading, speaking, and writing. It is a seminar equal to a fifth or sixth semester college-level Spanish course. The spiraling curriculum focuses on integrating each of the aforementioned skills to communicate verbally and in writing at an advanced level. This course is conducted exclusively in Spanish and the students are required to communicate in a total immersion setting. Throughout the year, students are exposed to authentic audio and video recordings, films, and literature intended for native speakers. Furthermore, they will study the current events of Spanish-speaking countries and engage in routine presentational tasks. Students who choose to do so, will also prepare to take the AP Spanish Language exam developed by the College Board. Prerequisite: Passing grade, departmental approval, and/or Advanced proficiency level as defined by ACTFL.

Latin
As a classical language, the study of Latin must be considered somewhat separately from the study of modern languages. Although there is similar attention given to learning grammar, vocabulary, history, and culture, there are notable differences.

Since classical Latin is no longer a “spoken” language, less emphasis is put on mastery of conversational skills and accent. Although Latin is employed in oral exercises, most of the class is conducted in English. Students study relevant etymological and syntactical connections between Latin and English in an effort not only to increase proficiency in Latin, but also in English. The study of Latin culminates with a student’s ability to translate the original works of Latin authors and to analyze them in the appropriate contexts of history, literature, and philosophy.

Latin 1 1 credit grades 9-11
This course aims to give the student the broadest understanding of the ancient Roman world. Primarily, we will study the Latin language and many of its intricacies. A more complete understanding of English grammar will facilitate our transition to Latin's unique structure. Students will simultaneously study the more intriguing aspects of ancient life and the impact it has in our own culture. Topics of interest include literature, history, religion and mythology, philosophy, art, and archaeology. Our primary textbook in this endeavor will be Latin for the New Millennium, however we will draw topics, projects, and exercises from many sources.
472 Latin 2  
1 credit  
grades 9-12
Latin 2 marks a transition from studying grammar and syntax to reading original, unadapted Latin texts. Students will be introduced to more complex structures of Latin syntax, they will increase their vocabulary and strive towards greater fluency in translations.

The primary text through the first two trimesters will continue to be *Latin for the New Millennium*. As students become comfortable reading more intricate Latin, they will abandon their textbooks and begin reading *Julius Caesar's Commentarii de Bello Gallico*, a first-hand account of Caesar’s campaigns through Gaul and Briton written by the general himself. Students will quickly discover that reading original Latin can be quite unlike reading sentences from a textbook. It requires a comprehensive understanding of the language, rather than a topical one. It is more challenging, but also far more rewarding. As students traverse the text, they will study Roman history and culture in greater detail, especially as it pertains to the life and times of Julius Caesar.

473 Latin 3  
1 credit  
grades 10-12
For third year Latin students, this course marks a transition in the study of the Latin language. Many of the major grammatical and syntactical topics have now been covered, and they can begin to explore the language on their own terms. Their focus will now shift from learning through a textbook to the realm of Roman literature in its original form and a close examination of the history and culture surrounding such works.

The works that we will focus upon in class are two of the most articulately crafted, intriguing, and beautiful in all of antiquity. The first semester will be spent reading Cicero and Sallust’s accounts of the Catilinarian Conspiracy. During the second semester we will read selections from Ovid’s *Metamorphoses*. This is a poetic work chronicling many of the most famous stories of Greco-Roman mythology. Legends of passionate love, terrible anger, and unspeakable sorrow are brought together by the common theme of transformation. Here we will read the stories of Daphne, Narcissus, Niobe, and other gods and heroes of ancient myth. *This curriculum alternates annually with the Latin 4 curriculum below.*

474 Latin 4 (Advanced)  
1 credit  
grades 10-12
Since Homer first sang of the wrath of Achilles, poetry has been an enduring phenomenon inspiring the foundations of western culture. There is no greater medium for expressing the power of a single word, the profundity of a thought, or the magnificence of a legend. Throughout the ages, poetry has been inextricably linked with love, faith, delight, sorrow, and, most notably for ancient authors, politics.

This course will focus on reading Vergil’s most celebrated work, the *Aeneid*. The *Aeneid* is an epic work in the style of the Greek poet, Homer. Its beauty and precision are matched only by its awesome power as a political instrument. Other historians, poets, and writers, both ancient and modern, will give us a more complete picture of this era of transformation and its lasting impact on the world. *This curriculum alternates annually with the Latin 3 curriculum above. This course will be taught in the 2017-18 school year.*

475 Latin 5 & 6 (Advanced)  
1 credit  
grades 10-12
The great works of classical literature stand on their own, but much of their significance can only be fully appreciated when understood within the greater realm of works spanning over many centuries. The intent of this course is to introduce advanced Latin students to a broad range of authors and genres that comprise various periods of Latin literature. Identifying the interrelations and tracking the evolving spirit of Romanitas among these diverse authors and works will lead to greater appreciation for the scope and significance of classical literature.

Works read in this class are largely determined by students’ particular interests and experience, though emphasis is also put upon expansion of repertoire. The class itself runs as a seminar with heavy emphasis upon translation, analysis, and scholarship. Works we have read in the past include those of Catullus, Horace, Vergil, Lucretius, Pliny, Cicero, and Livy. We have also included authors from Late Antiquity (e.g., St. Augustine, Jerome, etc.) as well as the Middle Ages.
RELIGION

Students are required to take 1.75 credits of Religion in grades 9-12.

Consistent with Westtown’s emphasis on justice, all courses provide a perspective that includes a diversity of views of people and communities. The Religion Department develops practical knowledge and spiritual depth through exposure to religions of the world. We do this by exploring primary-source texts and by direct experience with followers of religious traditions. Reading sacred texts invariably fosters critical examination of ourselves and contemporary culture. We cultivate a broad perspective that includes both western and non-western religions. This can build bridges of understanding in a world in which religious differences so often lead to violence.

Students will have the following core experiences in the religion department:

- Field trips to a local mosque and/or Hindu temple
- Experience in the practice of reflection and mindfulness as an essential skill
- Emphasis and practice in the art of respectful listening, allowing students to learn various ways to interpret religious literature and experience
- Variety of responses to religious experience: academic research, field studies, drama, multi-media, film and music
- Examination of the role of religion in current events

Required Courses:
- Quakerism in Life and Practice
- The Bible: Message and Meaning
- World Religions
- One Religion Elective (regular or advanced)

Elective Offerings:
- Nonviolence & Justice (Advanced) (Semester 1)
- Human & Environmental Justice (Advanced) (Semester 2)
- Liberation Theology
- Science and Religion
- Business and Society (Advanced)

Course Descriptions:

700 Quakerism in Life and Practice ¼ credit    grades 9-10
This full year course is required of all 9th and 10th grade students. It introduces students to Quakerism and the way in which Quakerism impacts life at Westtown as well as the larger world. Students will examine Quaker history, practice, and testimonies and the ways in which these testimonies manifest in current events and daily life. Class will include an online component for submission of work. This course relies heavily on individual participation, as students examine their own participation in creating a life which values the good in others and a society based on respect, integrity, and equality.

701 The Bible: Message and Meaning ½ credit    grades 10-11
Students read selections from the Bible, the Hebrew Scriptures and the Christian New Testament, to understand its unique interpretation of history and human nature, its perception of the relationship between God and human beings and its insights into contemporary life. The course asks essential questions: What does the Bible tell us about us -- about history, faith, and religious practice? The course also examines the way the Bible continues to impact human history and contemplative experience. (9th grade students may take this course with department permission.)

702 World Religions ½ credit    grades 11-12
World Religions explores the dominant religions of Asia and the Middle East -- Hinduism, Buddhism, and Islam. These traditions not only shape modern societies in powerful ways, but also offer unique and often instructive correctives to Western attitudes. The traditions are studied through literature, film, field trips, and guest lecturers. Our primary learning tool is the seminar discussion, augmented with group projects and individual research. Prerequisite: The Bible: Message and Meaning. 10th graders who wish to take World Religions in the second semester of their sophomore year can do so only with the approval of the Department Chair in consultation with the student’s classroom teacher.
703 Liberation Theology ½ credit  grades 11-12
Gandhi, Martin Luther King, Malcolm X, Dorothy Day, Oscar Romero and many more could be called Liberation Theologians. Liberation Theology examines religion as a vehicle and means of social and political liberation. It recognizes and explores the intimate connection between religion, politics, and the pursuit of justice in the modern world. The course calls the student to self-examination and awareness of key social and ethical issues such as first-world privilege and class distinction, gender inequality, and racial divide. We challenge ourselves to articulate how our personal religious or non-religious views may relate or respond to those who live on the margins of society. The course studies key historical figures such as King, Romero, and others and their contributions to the topic. Liberation Theology is theology for the oppressed, the persecuted and the victims of discrimination. Prerequisite: The Bible: Message and Meaning.

704 The Contemplative Experience ½ credit  grades 11-12
This course delves into the inward journey, exploring the mystical, personal, and experiential dimension of religion and spirituality. We trace this thread as it runs through historical figures and movements within a variety of religious traditions. Exploration of transcendent, unifying, and even unutterable religious experiences are considered. The course examines movements from the East (Zen, Taoism, Hinduism), from the West (Gnostic Christianity, Khabalah, Sufism), and from indigenous cultures (Native American, Aboriginal). The school's weekly practice of Quaker un-programmed worship will provide another window into contemplative activity. An emphasis on personal experience is highlighted through guest lecturers, field trips to local retreat and monastic centers, and student exploration of specific contemplative practices. Prerequisite: The Bible: Message and Meaning and World Religions. Students taking World Religions may obtain departmental permission to take this course simultaneously.

705 Religion and Science ½ credit  grades 11-12
The Dalai Lama famously said, “In order to understand the way our brains behave, we can observe our emotions and their effects. In the past, it seemed as though science and spirituality were opposed to each other. However, it’s not a useful division to maintain, because the one tradition deals with knowledge of the material world and the other with the inner world of the mind; we need to know about both.” The course explores how religion and science have interacted in the past and how a synthesis of these once bifurcated fields can create a wholeness of personhood. We begin with the universe story and learn about the depths of the debate between evolution and creation. We then trace the history of conflict between the Church and scientific discovery including figures like Copernicus, Galileo, and Darwin. Lastly, we explore the development of consciousness to learn about the principles of morality in animals and the neurological development of human brain, hinging on the foundational question, “are we wired to believe in God?” Prerequisite: The Bible: Message and Meaning and World Religions. Students taking World Religions may obtain departmental permission to take this course simultaneously.

707 Nonviolence, Justice, and Social Change (Advanced) (Semester 1) ½ credit  grade 11-12
This course examines the history and key voices of nonviolence and the search for justice in modern history. The course explores the inward transformation and discernment that often prompts these movements of direct action, and how religion can be a tool to transform human domination of people and ecosystems. The course begins with Leo Tolstoy, his religious philosophy, and his position on war, patriotism, and peace. From Tolstoy, we examine the work of his friend and correspondent, Mohandas Gandhi, and his nonviolent movement of “Satyagraha,” its triumph over the British and ultimate “failure” in post-Raj India. We study the teachings of the Dalai Lama in regard to Tibet and China as we examine nonviolent (and violent) clashes there. The course then moves to Desmond Tutu and an examination of Apartheid in South Africa before transitioning to the Holy Land and asking what of non-violence in Israel and Palestine? Lastly, we examine justice and non-violence in the Americas and the key figures involved such as Dorothy Day, Leonardo Boff, and the role religion played in non-violent movements in the American (Latin and North) context. This course is reading-intensive, and students will be expected to engage in daily discussion as well as to complete a project of social change or direct action. Prerequisite: The Bible: Message and Meaning and World Religions. Students taking World Religions may obtain departmental permission to take this course simultaneously. Students must have achieved a minimum average of 85% in World Religions OR obtain departmental approval.
708 Social and Environmental Justice (Advanced) (Semester 2) ½ credit grades 11-12
This course will examine how religion has inspired movements for radical social, political, economic, and ecological change throughout history. The course explores the inward transformation and discernment that often prompts these movements of direct action, and how religion can be a tool to transform human domination of people and ecosystems. In considering human oppression, we examine the specific historical context, leaders, and attitudes which gave rise to theologies of liberation, including Latin American, African-American, Asian, women’s and GLBT (Gay, Lesbian, Bi-sexual, and Transgender) movements. In view of the intimate relationship between oppression of peoples and the assault on nature, we also consider religious attitudes toward the environment and discuss movements and theological views aimed at restoring natural balance. This course is reading intensive, and students will be expected to engage in daily discussion as well as to complete a project of social change or direct action. Prerequisite: The Bible: Message and Meaning and World Religions. Students taking World Religions may obtain departmental permission to take this course simultaneously. Students must have achieved a minimum average of 85% in World Religions OR obtain departmental approval.

710 Business and Society (Advanced) ½ credit grades 11-12
In 2006, the Nobel Peace Prize was awarded to Muhammad Yunus and Grameen Bank – an unusual recognition of the deep humanitarian opportunities that exist within the business community. Building on this intention, Business & Society is an applied religion course about the immense power of the business community. The dual objectives of the course are for students to understand how business works, and to be inspired by the potential for business to be a significant force for good. Students explore a variety of sectors of the economy, from green building and impact investing to sustainable agriculture and consumer products. The course combines field trips, guest lectures, group projects, current and classic spiritual and business readings, and extensive journaling to engage students with the creative tension and opportunity of applying ethical norms in the real-world context of the marketplace. Students work together on a number of small group projects, highlighted by a capstone experience developing a viable business plan that addresses a significant social or environmental issue. Prerequisite: The Bible: Message and Meaning and World Religions. Students taking World Religions may obtain departmental permission to take this course simultaneously. Students must have achieved a minimum average of 85% in World Religions OR obtain departmental approval.

ARTS
Students are required to complete one full credit in the arts.

STUDIO ART
Department Philosophy
Aligned with Westtown's commitment to a strong educational program challenging students to pursue their potential and prepare them for a lifetime of learning, the arts complement academics through studio-based, experiential inquiry. By investigating visual language, students are asked to play with ideas, concepts, and process. A range of solutions is expected, reflecting the range of experience, creativity and perspective among students. Faculty respect and respond to the needs and voice of individual students.

Distinguishing Features:
- Portfolio development
- Open access to studio space
- A range of specialized facilities: printmaking studio, multipurpose instructional space, photo lab/darkroom, dedicated fine arts digital media lab, clay studio, and woodshop.
- Visiting artists join classes, exhibit in the gallery, and offer gallery talks.
- Close proximity to art museums and galleries in Philadelphia, New York, Baltimore and Washington, DC; visits to these complement classroom instruction.
- Strong college placement record: graduates are admitted to Rhode Island School of Design, Maryland Institute College of Art, California Institute of the Arts, Savannah College of Art and Design, Cooper Union, School of the Art Institute of Chicago, Carnegie Mellon University.
ARTS

Courses offered:
- Foundations of Studio Art 2-D
- Drawing 1, 2, 3, 4 (Advanced)
- Painting 1, 2, 3, 4 (Advanced)
- Printmaking 1, 2, 3, 4 (Advanced)
- Digital Arts 1, 2
- Foundations of Studio Art 3-D
- Sculpture 2, 3
- Clay 1, 2, 3
- Woodworking 1, 2
- Portfolio Preparation (Advanced)
- Photography 1, 2, 3
- The Craft of Art 1, 2

840  Foundations Studio Art 2-D (Semester 1) ½ credit  grades 9-12
This course provides an atmosphere both formal and experimental, designed for students seeking an introduction to Fine Art Drawing and Painting. Students will be given an opportunity to explore materials, techniques, and principles that are central to two dimensional art forms. Naturalistic drawing, explorations of perspective and classical forms will be highlighted throughout the term. Black and white media as well as color will be used with emphasis on visual organization, interpretation, expression and observation. Materials range from 6B pencils to acrylic paint on canvas. Students will also be encouraged to experiment with mixed media using subject matter both realistic and abstract.

841  Foundations Studio Art 3-D / Sculpture 1, 2, 3 (Semester 2) ½ credit  grades 9-12
This introductory design course allows students to experiment with the basic concepts of three dimensional art: gravity, space, time, movement, form vs function, and light. An understanding and appreciation for the visual and physical properties of a medium is developed by creating experimental structures. Problems are assigned which further explore the two basic methods of construction: additive and subtractive.

852-53  Craft of Art 1, 2 ½ credit  grades 9-12
Craft of Art exposes students to the many ways that artists work with their hands, exploring ways that art can be part of our everyday lives. Students explore craft traditions such as working with paper pulp, book making, clay, stencil printing and batik to develop a vocabulary for personal expression through an understanding of craftsmanship and the necessary critical thinking that is the basis for effective visual communication. As “craft” is a necessary element in the power of “fine art,” so too is “art” a necessary element in the power of objects. Students will be asked to consider these two inter-related aspects of their work.

854-57  Drawing 1, 2, 3, 4 (Advanced) ½ credit  grades 10-12
In these semester-long courses, students will explore different aspects of creating images using various approaches to drawing. Traditional drawing media, such as charcoal and graphite, will be used, expanding into work with watercolor, marker, and tempera. Various types of drawing surfaces will be explored, as well as how different mediums can be used in combination. Subject matter will be from still life, the figure, and aspects of abstraction. Students are encouraged to take this course before, or in conjunction with, other Visual Arts offerings 9th grade students with a strong interest, background and commitment to visual arts can request permission to enroll from the department chair.

858-861  Painting 1, 2, 3, 4 (Advanced) ½ credit  grades 10-12
In these semester-long courses, students will explore a variety of approaches to creating images with a variety of paint mediums. Students will explore different ways of working with oil paint, acrylic, and watercolor. Subject matter will be from still life, the figure, and aspects of abstraction. Students are encouraged to take Drawing before, or in conjunction with, this course. 9th grade students with a strong interest, background and commitment to visual arts can request permission to enroll from the department chair.
Printmaking 1, 2, 3, 4 (Advanced) ½ credit  grades 10-12
For purposes of these courses, Printmaking is defined as the transfer of an image from one surface to another. This broad definition allows for the exploration of different techniques in non-traditional ways. Drawing is used to explore subject matter and composition before engaging in the print process. First-year students will be introduced to the fundamental printmaking mediums of monotype, etching and screen-printing. In each subsequent year, new techniques will be introduced, such as collograph, and various aquatint techniques. Advanced students will work in a more self-directed manner, choosing techniques appropriate to their imagery. For advanced students, consideration should be given to variations in printing as well as combining techniques. 9th grade students with a strong interest, background and commitment to visual arts can request permission to enroll from the department chair.

Digital Arts 1, 2 ½ credit  grades 9-12
These courses are designed to educate students in the art of combining digital media and fine art materials in producing “mixed media” works. Students will incorporate digital and traditional components into their finished work by using techniques in image transfer, photomontage, collage and cyanotype. Using the scanner, digital editing, archival printing and “hands on” manipulation students will produce works on metal, wood and fine artist papers. These courses provide opportunities for experimentation and self-expression by allowing students the opportunity to explore a variety of surfaces, mediums and technologies.

Photography 1, 2, 3 (Advanced) ½ credit  grades 9-12
Photography introduces students to the fundamentals of the photographic process. Students learn and apply techniques for exposing, developing and printing a visual image through the use of black and white photography. Emphasis is also placed on composition and what constitutes a good photographic image. Students are expected to supply their own 35mm camera with manual controls.

Woodworking 1, 2, 3 (Advanced) ½ credit  grades 9-12
Woodworking is an art course introducing the nature and properties of wood, joinery and wood finishing. First-year students design, draw, and build various projects, including bookshelves, jewelry boxes and end tables. They use both hand tools and power tools in fashioning traditional joints, including hand-cut dovetails and mortise-and-tenon joints. Second-year students compose and complete more sophisticated independent projects--dressers, dining room tables, chairs and chests. Traditional cabinet making principles are emphasized throughout both courses. Field trips to local cabinetmakers support this goal. Students may take Woodworking 2 or 3 with permission of instructor after successfully completing Woodworking 1 or 2.

Clay 1, 2, 3 (Advanced) ½ credit  grades 9-12
These courses explore the techniques of working with clay on the potter’s wheel as well as the techniques of hand building. The student is introduced to the contemporary and historical traditions of clay work both as a functional and sculptural form of expression. An emphasis is placed on creating a vocabulary of technical skills, understanding of the physical nature of the materials and firing processes and developing an ability to discuss visual forms.

Portfolio Preparation ¼ credit  grades 11-12
Semester 1 – The first semester of Portfolio Preparation is directed at the needs of seniors. The focus is on the development of a visual art portfolio for admission to either art schools or liberal arts colleges and universities. Students are guided in determining their own visual strengths, composing clear and informed statements of purpose and are engaged in formal critiques by members of the Visual Art Department and visiting college representatives. Time will be devoted to working on portfolio needs and specific “take-home” exams, as well as learning to document their work.

Semester 2 – The second semester of Portfolio Preparation is directed at the needs of juniors who are considering submitting a portfolio of artwork either to art schools or to liberal arts colleges and universities. Focus will be on each student’s current body of work and how to expand it. Students will be informed of weekend offerings available in local art schools, and summer offerings at national art schools. An opportunity to attend Portfolio Day is offered in the fall.
PERFORMING ARTS

Department Philosophy

The Performing Arts Department recognizes that the arts are an integral component of all cultures. Faculty strive to support access for all students to a diverse experience in the performing arts that includes history and theory, as well as technical and performance contexts. A thorough and systematic program will help students develop the tools for self-expression, risk-taking and collaboration. Goals of the Performing Arts Department include fostering in students a lifetime appreciation of the performing arts while at the same time providing foundational skills for students who wish to pursue the performing arts in college.

Distinguishing Features:

- **Core faculty who are professionals:** musicians, actors, and dancers
- **Frequent performance opportunities**, both on and off campus, including regional competitions
- **World-class performing artists perform on campus**
- **Master classes with visiting artists**
- **Facilities** that include a 560-seat fully-equipped theater/performing space along with rehearsal and practice rooms

Courses offered:

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credit</th>
<th>Grades</th>
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</thead>
<tbody>
<tr>
<td>Elements of Theater</td>
<td>½</td>
<td>9-12</td>
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<tr>
<td>Acting Workshop</td>
<td>½</td>
<td>10-12</td>
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<tr>
<td>Collaboration and the Creative Process</td>
<td>½</td>
<td>10-12</td>
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<tr>
<td>Collaboration and Social Change</td>
<td>½</td>
<td>10-12</td>
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<tr>
<td>Jazz Ensemble</td>
<td>½</td>
<td>10-12</td>
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<tr>
<td>Choral Arts 1, 2</td>
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<tr>
<td>Choral Arts 3, 4 (Adv)</td>
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<tr>
<td>Symphonic Band 1, 2, 3, 4(Adv)</td>
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<tr>
<td>String Orchestra 1, 2, 3, 4 (Adv)</td>
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<tr>
<td>Applied Music 1, 2</td>
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<tr>
<td>Applied Music 3 (Adv), 4(Adv)</td>
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<tr>
<td>Introduction to Guitar</td>
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DRAMA

Course Descriptions

832 **Elements of Theater** ½ credit grades 9-12
A semester-long course intended to introduce students to the various aspects of theater arts. This course examines the major elements of theatre including: Acting, Directing, Design (costumes, lighting, scenery), Dramatic Literature and History. Students look at theatre from a global perspective through a series of creative hands-on projects, acting and directing exercises, and seminar-style discussions.

833 **Acting Workshop** ½ credit grades 10-12
In Acting Workshop, students learn how to read and analyze a script from the actor's point of view. Students present scenes from classical and modern theater. Ensemble work is stressed. We will also read and discuss excerpts from texts by Constantin Stanislavski, Uta Hagen, Jacques Lecoq, and Sanford Meisner, among others. Students are evaluated on degree of effort, quality of preparation for scene studies, commitment to the ensemble, willingness to engage in peer-to-peer critique, and ability to implement feedback. This course is open to 10-12th graders who have taken Acting 1, have participated in a Westtown Upper School theater production, or have obtained permission from the instructor.

834 **Collaboration & the Creative Process** ½ credit grades 10-12
A workshop style devised theater class which encourages student to take a deeper exploration of the process of creating theater with a focus on problem solving, collaboration, and creative thought. Through a series of exercises and projects, students will work as a team to create performance pieces utilizing every aspect of theater arts, including acting, directing, designing, and dramaturgy. Students will read critical essays, plays, and texts by Anne Bogart, Peter Brook, Augusto Boal, Simon McBurney and others. The course will culminate with a performance of a new play created, performed, and designed by the students. 
*Prerequisite: This course is open to students who have taken Acting 1, have participated in a Westtown Upper School theater production, or have obtained permission from the instructor. Preference to juniors and seniors.*
**Collaboration & Social Change**  
½ credit  
grades 10-12

A workshop style devised theatre class that will utilize the breadth of theater disciplines to create new theater performances that address issues of social importance. Students will read plays like Angels in America, No Child, Waiting for Lefty, Rent, Fires in the Mirror, and others to gain greater understanding of how theater has addressed issues of social importance. They will learn about theatre groups like The Civilians and Tectonic Theater Project, who work with communities to create plays to address important issues. The course will culminate with a performance of a new play created, performed, and designed by the students. Actors, writers, designers, and directors are encouraged to enroll. **Prerequisite:**  
This course is open to students who have taken Acting 1, have participated in a Westtown Upper School theater production, or have obtained permission from the instructor. Preference to juniors and seniors.

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**MUSIC**

**Course Descriptions**

**800 – 803 Symphonic Band 1, 2, 3, 4 (Adv)**  
½ credit  
grades 9-12

Students enrolled in Symphonic Band learn to perform literature in a variety of styles and time periods. Through the repertoire, instrumentalists develop their musical and technical proficiency on their instrument as well as learn how to be an effective and contributing member of the ensemble. Symphonic Band performances include regular scheduled concerts as well as additional off-campus concerts in the spring. At the beginning of the school year, auditions are held for placement, not for acceptance into the ensemble. **Prerequisite:** At least three years of previous lesson or ensemble experience on a woodwind, brass, or percussion instrument or permission from the instructor.

**804 – 807 Jazz Ensemble 1, 2, 3, 4 (Adv)**  
½ credit  
grades 10-12

Instrumental jazz students learn to play in a variety of historical and current jazz styles, as well as develop instrument-specific techniques that will enhance their musical and technical proficiency. Students also have learning experiences in the art of improvising, a core element of the jazz idiom. Jazz ensemble performances include regularly scheduled concerts as well as a number of special events on and off campus. **Prerequisite:** One year of Upper School large ensemble experience for wind and brass players. Interested guitar, piano, bass, or drum students need to obtain permission from the instructor. Auditions are required.

**809 – 813 String Orchestra 1, 2, 3, 4 (Adv)**  
½ credit  
grades 9-12

Students enrolled in String Orchestra learn to perform literature in a variety of styles and time periods. Through the repertoire instrumentalists develop their musical and technical proficiency on their instrument as well as learn how to be an effective and contributing member of the ensemble. String Orchestra performances include regular scheduled concerts as well as additional off-campus concerts in the spring. At the beginning of the school year auditions are held for placement, not for acceptance into the ensemble. **Prerequisite:** At least three years of previous experience on a string instrument or permission from the instructor.

**814 – 815 Choral Arts 1, 2**  
½ credit  
grades 9-12

Choral Arts 1 and 2 is a mixed vocal ensemble open to all. Prior vocal and musical training is not required. Repertoire includes choral literature in various periods, cultures, styles and languages. Through the repertoire students develop their musical and technical proficiency as singers as well as how to be an effective and contributing member of the ensemble. This course also includes training in sight singing and theory. The ensemble performs several times a year for the school community as well as the greater community.

**816 – 817 Choral Arts 3, 4 (Advanced)**  
½ credit  
grades 10-12

Choral Arts 3 and 4 is for students who have previous choral experience in Upper School and who pass a successful audition. A wide variety of challenging music is studied with an emphasis on a capella music. Through the repertoire students develop their musical and technical proficiency as singers as well as how to be an effective and contributing member of the ensemble. In addition to performing on and off campus, students are coached on District Choral audition music and are encouraged to audition for this select performing group. This class performs several times through the year, including off-campus concerts and activities. **Auditions are required.**
831  Introduction to Guitar ½ credit  grades 9-12
Have you always wanted to learn how to play the guitar but have done little more than learn “Smoke on the Water?” This course serves as an introduction to guitar. Students will learn how to care for the instrument, how to read music, tabs, chords, learn basic music theory, and will even be able to collaboratively and individually compose music. By the end of the course you will have a working knowledge of the guitar and be able to impress your friends and family with your skills. This course is for beginners only.

820 – 824  Applied Music (Overview)
Westtown School keeps a roster of professional music instructors to teach on campus students during daytime or evening study halls. All of the teachers have extensive experience teaching music as well as performing, from simple concert work to solos with some of the greatest symphony orchestras in the world.

We offer lessons in many styles of music, including classical, jazz, rock, folk, musical theater, bluegrass, country and world music. At present, our private music instructors teach voice (singing), piano, guitar, violin, viola, cello, bass (acoustic and electric), trumpet, trombone, baritone horn, tuba, clarinet, flute, saxophone, recorder, percussion and drum set. In addition, students are welcome to study with local off-campus instructors and apply for their lessons count toward Westtown Art credit.

820-822  Applied Music 1 or Applied Music 2 ½ credit  grades 9-12
Applied Music 1 and Applied Music 2 are the first and second year of weekly private lessons in Upper School with an approved music faculty member. Applied Music includes half-hour or one-hour weekly lessons (30/year). Requires a fee paid to the private teacher.

822-823  Applied Music 3 (Adv) or Applied Music 4 (Adv) ½ credit  grades 11-12
Applied Music 3 (Advanced) and Applied Music 4 (Advanced) are the third and fourth year of weekly private lessons with an approved music faculty member. Advanced Applied Music 3 includes a half-hour or one-hour weekly lessons (30/year). Requires a fee paid to the private teacher. Prerequisites: Applied Music 1 and Applied Music 2 or their equivalents.

INTERDISCIPLINARY STUDIES
Students may select from several interdisciplinary fields of study to explore topics that complement their program, offering opportunities for individual project design and first-hand experience in carrying out an extended, applied research or creative project.

Independent Research Project (Adv) Semester 1 ½ credit  grades 10 - 12
Students may design an Independent Research Project in a field of study that represents a strength or creative passion for them.

- 299  English Independent Research (Adv)
- 399  History Independent Research (Adv)
- 499  Language Independent Research (Adv)
- 599  Math Independent Research (Adv)
- 799  Religion Independent Research (Adv)
- 899  Arts Independent Project (Adv)

This course is designed to provide motivated students space in their course of study to pursue an independent research topic, to focus on an extended creative interest, or otherwise follow a passion within their Westtown academic program. Examples of possible ideas include: preparing for competition in the Google Science Fair (entries are due the end of March), composing a concerto, developing a wetland reclamation project, producing a documentary on a topic, writing a series of short stories for submission in a student competition or publication in a journal, researching a topic you found compelling in another class and want to explore in further depth.

Independent work is the heart of this course. Students will identify a mentor in their field of study as a primary resource and guide. For instance, if you are composing a concerto you need a musician as a mentor. If you are exploring a question in engineering, you need an engineer as a mentor. Students will meet individually with the Director of Teaching and Learning as well as work closely with Westtown’s librarians throughout all phases of their work.
Students will keep a weekly blog for the entire Westtown community and to comment on each other’s blogs. In addition, each student must identify a public forum for their final product.

**980 SENIOR PROJECTS**

By the senior year, students are ready to apply their ideas outside the classroom in a working world setting. Senior Projects give students a chance to design an independent experience away from the familiar classroom setting, with the focus on independent inquiry and personal growth. Students design a two- to four-week project which takes them outside the campus for service work, cultural immersion, research educational experience, or an internship.

**HEALTH & LIFE SKILLS and SEMINARS**

*Ninth grade students must take Health and Life Skills. Eleventh grade students are required to take Junior Seminar. Twelfth grade students are required to take Senior Seminar.*

**Department Philosophy:**

The Health and Life Skills Department strives to teach students what is meant by wellness and how to maintain a healthy lifestyle. The curriculum helps students develop fundamental life skills to help them sustain and enjoy their life’s journey. The Health and Life Skills teachers speak with students honestly and sincerely about their physical, emotional, and spiritual being. Health classes are factual as well as philosophical and help students develop skills for healthy decision-making with regard to their own wellness.

**Distinguishing Features:**

- Class discussions honor differing points of view
- Topics explored within the context of family philosophy, culture, and spiritual beliefs
- Skill development and support for practicing healthy behaviors
- Instruction in decision-making and a variety of practical life skills

**Courses required:**

9th grade  Health & Life Skills
11th grade  Junior Seminar
12th grade  Senior Seminar

**Course Descriptions:**

**950 Health and Life Skills**

This course is designed to challenge students to take direct responsibility for their own health through discussion, group activities and projects. The curriculum includes study in the areas of nutrition, mental health, drugs, sexuality, and life skills issues such as self-esteem, decision making, communication and stress management. Students also develop a positive self-concept and gain skill in making personal decisions.

**953 Junior Seminar**

Meeting weekly during the junior year, this course continues working with health topics as students develop increasing independence as members of the residential community. The winter semester begins the college guidance process in this course. Junior Seminar provides a small-group, guided process of self-assessment, organization, and research skill development. Students complete a personality inventory and a draft of the Common Application. This course complements individual meetings between juniors and the college counselors. An interviewing workshop is led by a visiting college admission professional.

**954 Senior Seminar**

This yearlong interdisciplinary course meets weekly. The first half of the year supports the college application process: organization, writing application essays, obtaining recommendations, completing forms, communicating with college admission professionals, and applying for merit scholarships and financial aid. In the second half of the year, the focus changes to issues facing the seniors as they plan their transition to college: social and community responsibility, personal health and wellness, independent living, and stress management.
COLLEGE COUNSELING

Program Overview and Goals

A successful Westtown career is defined by the confidence and preparedness a student enjoys as he or she moves on to the next level of education. Westtown students gain admission to outstanding colleges and universities ranging from the nation’s most selective colleges to public universities to professional programs in the fine and performing arts. The college counseling staff recognizes each student as an individual and works with the student and his/her family to identify a range of options and to facilitate the application process. Through individual counseling and group classes, juniors and seniors develop a variety of the options that will best fit their interests and strengths.

Beginning in mid-January, each junior participates in a weekly Junior Seminar and applies their research skills to the college search. Students complete a draft of the Common Application, prepare for campus visits, practice interviews in a workshop setting, and get a jump start on their college essays. In the first half of the senior year, Senior Seminar supports the process of completing applications, and polishing essays.

Individual meetings between the college counselor and student help shape the student’s list at each stage of the process. Parents are encouraged to be involved from the start and communicate openly with the college counselors.

While well-supported every step of the way, students are given increasing responsibility for this process over the course of the junior and senior years. Our goal is not only for every senior to have a number of wonderful offers of admission from which to choose, but also for the student to feel ownership of the process and responsibility for his or her success.

DISTINGUISHING PROGRAMS

Westtown students live and learn alongside students from around the world because our residential program typically enrolls students from 17 countries in North and South America, Asia, Africa, Europe and Australia. No other school in the region offers this kind of diversity. In addition to the dynamic global community that is our student body, we also offer a number of innovative programs that are unique to Westtown and reinforce the global competencies we expect of all our graduates. Students lead activities in both classroom and community life, design projects that put their beliefs and understanding of the world into action, and collaborate with others. The selection of programs below demonstrates some of the opportunities available in our program.

DEEP DIVE DESIGNATIONS


The program honors students who are engaged in an intentional, organized and well-documented program of action-based learning and focused scholarship. The student creates the path from initial interest to successful capstone project. Upon completion of the program students will receive a designation on the student’s transcript. Students may pursue more than one Deep Dive. While each program area has a different focus, all three share a common framework:

- Each one has a set of academic requirements that may be met as students fulfill course requirements for graduation.
- Students must complete four projects over their junior and senior year from within other courses in their individual academic programs. For instance, a student in Latin American History may focus a research assignment on land use and degradation in the Caribbean as a part of her Deep Dive in Leadership for Sustainability.
- The Deep Dives include an off-campus immersion experience. Students may satisfy this part of the program through their Senior Project or fulfilling their 40 hours of service. They may also choose another means of immersion. For instance, a student interested in Social Entrepreneurship might participate in the Ashoka’s Catapult Incubator.
- Over their junior and senior years, students will build a portfolio of work. In collaboration with the program director, students will create and complete a capstone project that demonstrates authentic action-based learning, ties all of the certificate experiences into a reflective whole, and demonstrates Westtown’s Global Competencies.
GLOBAL CONNECTIONS: LIVING AND LEARNING IN A CONNECTED WORLD

International Experiences and Senior Project Faculty-led Trips

- **GHANA:** Heritage Academy, Accra, Ghana — In 2004, Westtown faculty member and Ghanaian citizen, Kwesi Koomson, founded Heritage Academy, a first class boarding school for children in Ghana. Since its founding, Heritage Academy has hosted seniors for a two-week Senior Project at the end of the winter term, giving students an opportunity to teach and work in partnership with local residents in supporting volunteer work that the school requests.

- **SOUTH AFRICA:** The senior project to Africa will visit Sun Valley School in South Africa every three years. Students on this trip will engage in community service in the neighborhoods near Cape Town and visit historical sites such as Robben Island where Nelson Mandela was in prison for 27 years.

- **ISRAEL/PALESTINE:** Jerusalem, Israel and Ramallah, West Bank — The Israel/Palestine Senior Project offers a once in a lifetime opportunity to travel to one of the most influential regions in world history and current affairs, as well as to Jerusalem, the city with sites that are sacred to Judaism, Christianity and Islam. Participants will hear multiple voices of Palestinians and Israelis, develop relationships with local students, and visit with human rights groups, social justice organizations, businesspeople, educators and community activists. The group will visit Jerusalem, the Jezreel Valley, Nazareth, the Sea of Galilee, the Jordan Valley, Jaffa, Bethlehem, and Ramallah. This experience includes homestays with families whose children attend Ramallah Friends School, Westtown's sister school in Palestine.

- **ITALY:** Paideia Institute visits Rome and Naples — This trip is designed for Latin students, but it is also open to any upper school students who are interested in making a more profound and first-hand connection with modern and ancient Italy. Westtown will run this trip in partnership with the Paideia Institute, an organization that aims to provide rigorous and intensive periods of study of Latin and to inspire participants to form a close personal relationship with the classics through extraordinary learning experiences. In addition to visiting sites in and around the cities of Rome and Naples, students will also engage with the Latin language in both written and spoken activities.

- **MEXICO:** Since 2004, Westtown's Quaker Leadership Program has offered a summer work-camp at Las Canadas focusing on cloud-forest conservation, sustainable development, and cultural immersion. Up to twelve students will have the opportunity to work in an eco-village setting. Through small-group projects, ecological restoration work, meetings with local experts, and interactive and social and economic justice work hand in hand.

INTERNATIONAL STUDENT PROGRAM

**Distinguishing Features:**

- Diverse countries of origin with limited numbers of students from any one language group
- An International Student Coordinator
- International Student Organization which sponsors a variety of special events
- A host family program in which international students are matched with local families
- Biweekly meetings with all international students coordinated by the International Student Coordinator to discuss a wide range of issues in school and community life

LEADERSHIP & EXPERIENTIAL LEARNING

- **LEADERSHIP SEMINAR:** This program is for students in elected and appointed leadership positions including the Student Body Presidents, Work Program Heads, Chief Prefects, Prefects, Proctors and Class Officers. In regular meetings, Leadership Seminar helps Westtown student leaders to actively consider what it means to lead at Westtown and in the rest of society, affords them the opportunity to develop and hone effective leadership skills and creates a forum in which they may process the challenges of leadership in a mixed-age group of their peers.

- **QUAKER LEADERSHIP PROGRAM:** The Quaker Leadership Program seeks to deepen students' spiritual lives, develop friendships and teach effective Quaker leadership skills. Seminars teach students how to clerk a business meeting, how to provide effective vocal ministry, and how to lead social justice activities topics such as fair trade practices. This program has developed a strong sense of community and identity for our Quaker students, and has enhanced the leadership skills of all students who attend. In the summer, the Quaker Leadership Program leads a number of community service programs open to all students.
LEADERSHIP | SERVICE

- **ORGANIC FARM:** Students participate in planting and harvesting vegetables from our on-campus organic farm, helping to provide fresh food for our community in the fall and spring terms. Class gardening projects and harvest celebrations bring the community together at the farm.

- **ROBOTICS:** The Westtown Robotics team is part of FIRST, For Inspiration and Recognition of Science & Technology, an organization which creates a dynamic link between science and technology. The Westtown team, number 1391, is one of hundreds of teams across the United States. FIRST is spreading to foreign countries as well. The Westtown Robotics team works on real world applications of science and technology. Students on this team are enthusiastic about robotics and solving problems together creatively. With the help of mentors, personal dedication and generous donations of time and money, the team produces a robot and enters competitions each year.

- **WORK PROGRAM**
  Work Program reaffirms the value of service to others and the dignity of all work. All Upper School students complete a variety of work experiences, including janitorial and kitchen jobs. Every senior leads a work crew for at least one work cycle, gaining valuable experience in leadership and management of a team working toward a common goal.

SERVICE LEARNING

Service learning integrates community service work with academic learning, both inside and outside the classroom. Students engage in community service in a variety of ways: in afternoon and weekend programs, in individual classes and entire school service days.

**Service Graduation Requirement:** In order to fulfill its mission, Westtown is committed to making service an integral part of a Westtown education. Students must complete an intensive service activity for a minimum of 40 hours. Students may choose from one of the following options:

- Participation in one term of the Service Network Co-Curricular
- Westtown sponsored service project during summer vacation or Senior Projects
- An independently-designed project of 40 hours during the school year or during a vacation

ACADEMIC RESOURCES

**Learning Resource Center**

The Learning Resource Center is open to all students in the Upper School, assisting students in achieving academic success. It provides an ideal group study location during free periods daily as well as during evening study hall hours. History, Language, Religion, and Science teachers staff study halls in the Learning Resource Center as well, offering another opportunity for students to seek feedback and guidance from classroom teachers. In addition, the Learning Resource Center coordinates support for students in establishing effective study strategies on a drop-in basis.

The Learning Resource Center Director also works closely with the school’s Educational Psychologist and the College Counseling Office to counsel families about appropriate documentation for students with learning style differences and others who may qualify for accommodations in the classroom or testing. The school follows the guidelines established by the College Board for Students with Disabilities.

**Math Lab and Peer Tutoring:** The Math Department offers math lab help during free periods, staffed by Math teachers and peer tutors. In addition, peer tutors work closely with the Math Department and Math Club to support students who request help.

**Writing Center and Writing Fellows Program:** The English Department runs the Writing Center with support from English teachers and student Writing Fellows. Students can request help with writing for any class, for college essays, senior project and service proposals. In addition, the Writing Center provides a resource to encourage the art and craft of writing.
WESTTOWN SCIENCE INSTITUTE

The school’s 600 acres and LEED Gold-Certified Science Center provide the ideal environment for investigating scientific phenomena in a dynamic new way.

Westtown Science Institute offers the following unique experiences:

- an inquiry-driven, immersive learning environment, in the lab and on the campus
- learning that focuses on working together to create solutions
- design and build projects that generate authentic products

Summer courses are offered in three-week intensive segments allowing students to dive deep into phenomena and systems. Energetic, passionate and talented faculty dedicated to integrative learning have designed engaging new approaches to a program that starts with inspiration and natural curiosity.

STANDARDIZED TESTING

9th grade & 10th grades: CWRA and PSSS

CWRA-College Work and Readiness Assessment—All 9th grade students take the College Work and Readiness Assessment in the fall term. This computer-based test establishes a benchmark assessment of students’ performance in a problem-based series of tasks. Students will work with factual reports, narrative accounts, expert testimony, and statistical evidence as they respond to questions about a real world problem to solve. Students will take this test again in the spring term of 11th grade.

PSSS—All 10th graders sit for the PSSS (a practice PSAT) in the winter. This provides a testing experience prior to formal College Board tests such as the PSAT, SAT, and Subject Tests in a familiar school setting. This testing also provides helpful feedback on a student’s answers, highlighting areas for future attention or review. This is an invaluable tool in helping students identify areas they can work on with their teachers or through outside test preparation programs.

SAT Subject Tests: 9th or 10th grade students may choose to take the SAT Subject Test in Math Level 1 at the end of Algebra 2 or Precalculus. Students in US History (Advanced) may also select to take the SAT Subject Test.

11th grade year: PSAT, SAT, ACT, and CWRA

PSAT, SAT, ACT: All 11th grade students take the PSAT in October. Juniors are advised by the College Counseling office to take the SAT twice, once “early” and once “late” (December or January and May or June) and the ACT (in April). Many juniors will take at least 2 Subject Tests in June.

SAT Subject Tests: 11th or 12th grade students may choose to take the SAT Subject Test in Math Level 1 at the end of Algebra 2 or Precalculus, Math Level 2 at the end of Precalculus; French, Chinese, or Spanish at the end of level 4.

CWRA: 11th grade students take the CWRA in the spring term to measure the progress they have made in analyzing data and reports from multiple sources in a real-world, problem-based setting. This assessment matches well the strength of analytical thinking and use of data that colleges and future work environments will depend on.

12th grade year: take at least one additional SAT and/or ACT test depending on their college list. Subject Tests may also be taken in October, November, and December.
STANDARDIZED TESTING

SAT Subject Tests: 9th through 12th grades

Based on their individual strengths, courses and performance, students may choose to take the following Subject Tests as part of their testing profile for college applications. Teachers will guide students in how to complete individual preparation for these tests. Students may select the Subject Test at various times during the year depending on the course in which they are enrolled.

<table>
<thead>
<tr>
<th>Course</th>
<th>SAT Subject Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanish 4 (Adv) or 5 (Adv)</td>
<td>Spanish Language</td>
</tr>
<tr>
<td>Spanish 4 (Adv) or 5 (Adv)</td>
<td>Spanish Language with Listening</td>
</tr>
<tr>
<td>French 4 (Adv) or 5 (Adv)</td>
<td>French Language with Listening (November only)</td>
</tr>
<tr>
<td>Mandarin 4 (Adv) or 5 (Adv)</td>
<td>Chinese Language</td>
</tr>
<tr>
<td>Mandarin 4 (Adv) or 5 (Adv)</td>
<td>Chinese Language with Listening (November only)</td>
</tr>
<tr>
<td>US History (Adv)</td>
<td>US History</td>
</tr>
<tr>
<td>Geometry &amp; Algebra 2</td>
<td>Math Level 1</td>
</tr>
<tr>
<td>Functions</td>
<td>Math Level 1 or 2</td>
</tr>
<tr>
<td>Precalculus or Precalculus (Advanced)</td>
<td>Math Level 2</td>
</tr>
<tr>
<td>Physics 1 (Advanced) &amp; Physics 2 (Advanced)</td>
<td>Physics</td>
</tr>
<tr>
<td>Chemistry 1 (Advanced) &amp; Chemistry 2 (Advanced)</td>
<td>Chemistry</td>
</tr>
<tr>
<td>Contemporary World Literature (Eng 11)</td>
<td>Literature</td>
</tr>
</tbody>
</table>

AP Examinations

Westtown courses offer students a rigorous and rich curriculum including advanced coursework that often stretches them in areas not covered in depth by the AP curriculum and that emphasizes the kinds of critical thinking valued in college seminars and laboratories. Westtown students may, however, choose to sit for the AP exam in a variety of subject areas based on the work they have completed that is both in-class and supplementary to the curriculum. The following chart indicates where students have opted to take the AP exam after additional individual preparation:

<table>
<thead>
<tr>
<th>Course</th>
<th>AP Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contemporary World Lit (Eng 11)</td>
<td>English Language and Composition</td>
</tr>
<tr>
<td>Writing with Power (Eng 12)</td>
<td>English Language and Composition</td>
</tr>
<tr>
<td>Contemporary World Lit (Eng 11)</td>
<td>English Literature</td>
</tr>
<tr>
<td>British Literature, American Lit 2 (Advanced)</td>
<td>English Literature</td>
</tr>
<tr>
<td>Spanish 5 (Advanced) or 6 (Advanced)</td>
<td>Spanish Language</td>
</tr>
<tr>
<td>French 5 (Advanced) or 6 (Advanced)</td>
<td>French Language</td>
</tr>
<tr>
<td>Chinese 5 (Advanced) or 6 (Advanced)</td>
<td>Chinese Language and Culture</td>
</tr>
<tr>
<td>Calculus 1 (Advanced)</td>
<td>Calculus AB</td>
</tr>
<tr>
<td>Calculus 2 (Advanced)</td>
<td>Calculus BC</td>
</tr>
<tr>
<td>Computer Science 1 (Advanced)</td>
<td>Computer Science A</td>
</tr>
<tr>
<td>Physics 3, 4 (Advanced)</td>
<td>Physics B, C</td>
</tr>
</tbody>
</table>
ATHLETICS

Whether you’re a varsity level player, someone who simply thrives on competition, or a newcomer to competitive sports, we have a place for you. Every student benefits from our strong, wide-ranging athletic program which includes 21 varsity teams and non-competitive options. Respect for coaches, teammates and opponents is essential as Westtown athletes aspire to achieve individual and team goals. Winning and losing are intrinsic to athletics, and provide opportunities for growth and improvement. You’ll learn to perfect your skills, keep your body in great condition, be a good sport, and boost your team. As you take positive risks and reach toward our high standards, you’ll gain the discipline and self-confidence that carries you through league games, championships, and on into college athletics.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th grade</td>
<td>Three athletic seasons (at least two interscholastic sports teams; one season of choice)</td>
</tr>
<tr>
<td>10th grade</td>
<td>Three athletic seasons (at least two interscholastic sports teams; one season of choice)</td>
</tr>
<tr>
<td>11th grade</td>
<td>Three athletic seasons (at least one interscholastic sports team; two seasons of choice)</td>
</tr>
<tr>
<td>12th grade</td>
<td>One interscholastic sports team and two seasons of choice or Two interscholastic sports seasons and one season free</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FALL</th>
<th>WINTER</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interscholastic</td>
<td>Interscholastic</td>
<td>Interscholastic</td>
</tr>
<tr>
<td>Cross Country - Boys</td>
<td>Basketball - Boys</td>
<td>Baseball - Boys</td>
</tr>
<tr>
<td>Cross Country - Girls</td>
<td>Basketball - Girls</td>
<td>Golf—Boys &amp; Girls</td>
</tr>
<tr>
<td>Field Hockey - Girls</td>
<td>Indoor Track-Boys &amp; Girls</td>
<td>Lacrosse - Boys</td>
</tr>
<tr>
<td>Soccer - Boys</td>
<td>Swimming-Boys</td>
<td>Lacrosse - Girls</td>
</tr>
<tr>
<td>Soccer - Girls</td>
<td>Swimming - Girls</td>
<td>Softball - Girls</td>
</tr>
<tr>
<td>Tennis - Girls</td>
<td>Wrestling - Boys</td>
<td>Tennis - Boys</td>
</tr>
<tr>
<td>Volleyball - Girls</td>
<td></td>
<td>Track &amp; Field - Boys</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Track &amp; Field - Girls</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Co-Curricular</th>
<th>Co-Curricular</th>
<th>Co-Curricular</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dance</td>
<td>Dance</td>
<td>Dance</td>
</tr>
<tr>
<td>Gardening</td>
<td>Gardening</td>
<td>Drama: Senior Play</td>
</tr>
<tr>
<td>Drama: Fall Play</td>
<td>Drama: Musical</td>
<td>Drama: Scenic Arts Design</td>
</tr>
<tr>
<td>Drama: Scenic Arts Design</td>
<td>Drama: Scenic Arts Design</td>
<td>Outdoor Leadership</td>
</tr>
<tr>
<td>Outdoor Leadership (Adv)</td>
<td>Robotics</td>
<td>Service Network</td>
</tr>
<tr>
<td>Service Network</td>
<td>Service Network</td>
<td>Service Network</td>
</tr>
<tr>
<td>Strength &amp; Conditioning</td>
<td>Strength &amp; Conditioning</td>
<td>Strength &amp; Conditioning</td>
</tr>
<tr>
<td>Fall Swimming - Training</td>
<td>Morning Fitness</td>
<td>Spring Girls’ Tennis - Training</td>
</tr>
<tr>
<td>Fall Boys’ Tennis – Training</td>
<td>Winter Baseball - Training</td>
<td></td>
</tr>
<tr>
<td>Fall Wrestling - Training</td>
<td>Winter Boys’ Lacrosse - Training</td>
<td></td>
</tr>
<tr>
<td>Fall Boys’ Basketball – Training</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Curriculum-at-a-Glance

### 2015-2016

### English

**Required:** Outsider in Literature (9th); American Literature (10th); Contemporary World Literature (11th S1); Writing with Power (12th S1)

**11th and 12th grade required Semester 2:** English Electives (S2)

**Additional courses:** Creative Writing Seminar (Adv) (S); English Independent Research (Adv) (S)

### History

- Peace & Justice (Adv)
- US History (Adv)
- The Holocaust & Genocide (Adv)*
- Microeconomics (S1)
- Macroeconomics (S2)

- Peace & Justice
- US History
- From Hiroshima to 9/11 (Adv)
- World History 1 (S1)
- World History 2 (S2)

- American Cultures
- US History INTL
- From Hiroshima to 9/11
- Chinese History (S1)
- Modern India (S2)

- * = offered in 2017-18

### World & Classical Languages

- French 1, 2, 3, 4 (Adv), 5 (Adv), 6 (Adv)
- Latin 1, 2, 3, 4 (Adv), 5 (Adv)

- Spanish 1 & 2 Accel., 2, 3, 4 (Adv), 5 (Adv), 6 (Adv)
- Language Independent Research (Adv) (S)

- Modern Europe – Russia (S1)
- Modern Europe 2 – WWI (S2)

- English Language for Speakers of Other Languages:
  - English Language and Composition
  - English Language and Composition 2
  - English Literature and Language Seminar (Adv) (S)

### Math

- Algebra 1 (Adv)
- Algebra 2 & Trig (Adv)
- Precalculus (Adv)
- Calculus 1 (Adv)
- Computer Science 1 (Adv)

- Algebra 2 (Adv)
- Precalculus
- Calculus 1
- Computer Science 1

- Geometry (Adv)
- Algebra 2
- Functions
- Calculus 2 (Adv)
- Mobile App Development (S)

- Geometry Essentials
- Algebra 2 Essentials
- Statistics
- Linear Algebra (Adv)
- Math Ind. Research (Adv) (S)

### Science

**Year 1:**
- Physics 1 (Adv)
- Biology 1 (Adv)

**Year 2:**
- Chemistry 1 (Adv)
- Biology 2 (Adv)

**Years 3 & 4:**
- Physics 2 (Adv)
- Biology 2 (Adv)

- Evolution (Adv) (S)
- Evolution (S)

- Chemistry Bonding & Equilibrium (Adv)
- Organic Chemistry (Adv)
- Modern Physics (Adv)

- Environmental Science 1, 2
- Astrophysics (S)

- Design Engineering 1, 2
- Scientific Research (Adv)

### Health & Seminars

- Health; Junior Seminar; Senior Seminar

### Religion & Service

**Required Courses:** Quakerism in Life & Practice; Bible: Message & Meaning; World Religions; plus one elective (below)

**Religion Electives:**
- Nonviolence & Social Justice (Adv) (S1)
- Social & Environmental Justice (Adv) (S2)
- Religion Independent Project (Adv) (S)

**Business & Society (Adv) (S)
- Liberation Theology (S)
- Religion & Science (S)

**Service:** 40 Hours of Community Service

### Arts

**Art**
- Foundations of 2-D Art
- Photography 1, 2, 3 (Adv)

- Foundations of 3-D Art
- Woodworking 1, 2, 3 (Adv)

- Drawing 1, 2, 3 (Adv)
- Portfolio Preparation (Adv)

- Painting, 1, 2, 3 (Adv)
- Arts Independent Project (Adv)

- Printmaking 1, 2, 3 (Adv)
- Digital Arts 1, 2

- Clay 1, 2, 3 (Adv)

**Music**
- Choral Arts 1, 2
- Choral Arts 3, 4 (Adv)

- Symphonic Band 1, 2, 3, 4 (Adv)
- Jazz Ensemble 1, 2, 3, 4 (Adv)

- String Orchestra 1, 2, 3, 4 (Adv)
- Applied Music 1, 2, 3 (Adv), 4 (Adv)

- Intro to Guitar

**Theater**
- Elements of Theater
- Acting Workshop

- Collaboration & Creative Process
- Collaboration & Social Change

- Arts Independent Project (Adv)

### Physical Education

**Three Seasons of Physical Education Required for All Students**
- Grades 9 – 12
  - 9th and 10th Grade - 3 Seasons required: 2 interscholastic sports seasons and 1 additional season
  - 11th and 12th Grade - 3 Seasons required: 1 interscholastic sport season and 2 additional seasons
FOR ADDITIONAL INFORMATION
Visit our website at www.westtown.edu

Contact the Admissions Office
(prospective families)
Phone: 610-399-7900

Contact the Upper School Office
(currently enrolled Upper School families)
Phone: 610-399-7700