

*Bound Brook High School*



*Program of Studies*

2017-2018

**Bound Brook School District**

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## BOUND BROOK HIGH SCHOOL

*A supportive multicultural community that provides an innovative and academically challenging educational program while offering a variety of extra-curricular and social opportunities that encourage life long learning and citizenship.*

[www.bbrook.k12.nj.us](http://www.bbrook.k12.nj.us)

732-652-7950

Edward Smith, Principal

Anthony Egan, Assist Principal/Athletic Director

Sheena Nicholson, Assistant Principal

Dear Students,

The faculty and administration of Bound Brook High School have designed this Program of Studies as an aid in planning your academic program. Our course offerings provide a variety of learning opportunities and require you to make decisions that best meet your needs and goals. The offerings should be reviewed carefully with your parents and in consultation with your teachers and counselor in order to create a schedule that meets your academic needs and goals.

Bound Brook School District believes that it is necessary to ensure that all of the students have a rigorous education that prepares them for college and career readiness. Enclosed in this Program of Studies are Graduation Requirements according to New Jersey State and Bound Brook Board of Education Polices, Recommended Course Load for each grade level, and the Course Descriptions for all courses offered at Bound Brook High School.

You are encouraged to have a comprehensive education, sampling new subjects and interests so that you develop a well-rounded program. Work with your parents, teachers and counselors and strive to develop a program of studies that challenges you to achieve your educational and career goals.

Sincerely,

Edward Smith, Principal  
Bound Brook High School  
111 West Union Avenue  
Bound Brook, NJ 08805  
(732) 652-7950

## **GRADUATION REQUIREMENTS**

Students must successfully earn a total of **120 CREDITS** for high school graduation.

Of the 120 credits, the following are the prescribed courses that are dictated through New Jersey State and Bound Brook Board of Education Policies:

4 years of English *	20 credits
4 years of Physical Education.	15 credits
4 years of Health Education *	5 credits
3 years of Mathematics *	15 credits
3 years of Science *	15 credits
3 years of Social Studies *	15 credits
1 year of 21 <sup>st</sup> Century Career/Technology	5 credits
1 year of Visual/Performing Arts <sup>+</sup>	5 credits
1 year of World Language <sup>+</sup>	5 credits
1 semester of Financial Literacy	<u>2.5 credits</u>
<b>total</b>	<b><i>102.5 prescribed credits</i></b>

The remaining course credits (17.5 credits) should be chosen to give the student a well-rounded program that will help them to become a better person and citizen, and prepare them for college and career readiness.

### **Course Load**

All freshmen through juniors are required to carry a 35-credit class load each year; seven full year courses or six full year courses and two semester courses.

Seniors, in good standing, will be allowed to apply for a senior privilege of late arrival or early dismissal. The minimum credit load requirement for a senior will be 30-credits; six full year courses or five full year courses and two semester courses.

### **Grading Scale**

<b>A=90-100</b>	<b>B=80-89</b>	<b>C=70-79</b>	<b>D=65-69</b>
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\*Subjects have specific courses students need to successfully complete for graduation requirements

<sup>+</sup>Students may chose courses that are offered to successfully complete for their graduation requirement

# ASSESSMENTS

## A. High School Assessment

### High School Graduation Requirements

*Updated August 2016*

On August 3, 2016, the State Board of Education approved updated state regulations for the high school graduation assessments requirements in both English language arts (ELA) and mathematics for the Classes of 2016 through 2021, and beyond.

Students graduating as members of the classes of 2016 through 2019 can meet graduation assessment requirements through a variety of ways, including:

- (1) Achieving passing scores on certain PARCC assessments;
  - (2) Achieving certain scores on alternative assessments such as the SAT, ACT, or Accuplacer; or
  - (3) The submission by the district of a student portfolio through the Department’s portfolio appeals process.
- (Special Education students whose Individualized Education Plans (IEPs) specify an alternative way to demonstrate proficiencies will continue to follow the graduation requirements set forth in their IEPs.)

The Class of 2020 can demonstrate graduation assessment proficiency through the same alternative means as those in the Classes of 2016 through 2019, provided that students in the Class of 2020 take all end-of-course PARCC assessments for which they are eligible, as of the effective date of when the amendments were adopted by the State Board of Education.

For the Class of 2021 and thereafter, students who have not demonstrated proficiency on the ELA 10 and Algebra 1 assessments, and have taken all end-of-course PARCC assessments for which they are eligible, can demonstrate graduation assessment proficiency by meeting the criteria of the portfolio appeals process.

It is important to note there has always been a system for students to demonstrate and meet graduation requirements through an alternative assessment or pathway to graduation throughout New Jersey’s forty-year history with a statewide assessment program.

In this document, you will find charts containing the list of assessment requirements in both ELA and mathematics for the high school graduation Classes of 2016 through 2021.

<b>English Language Arts (ELA)</b>
PARCC ELA Grade 9 $\geq$ 750 (Level 4) <i>or</i>
PARCC ELA Grade 10 $\geq$ 750 (Level 4) <i>or</i>
PARCC ELA Grade 11 $\geq$ 725 (Level 3) <i>or</i>
SAT Critical Reading (taken before 3/1/16) $\geq$ 400 <i>or</i>
SAT Evidence-Based Reading and Writing Section (taken 3/1/16 or later) $\geq$ 450 <i>or</i>
SAT Reading Test (taken 3/1/16 or later) $\geq$ 22 <i>or</i>
ACT Reading or ACT PLAN Reading* $\geq$ 16 <i>or</i>
Accuplacer Write Placer $\geq$ 6 <i>or</i>
Accuplacer Write Placer ESL $\geq$ 4 <i>or</i>
PSAT10 Reading or PSAT/NMSQT Reading (taken before 10/1/15) $\geq$ 40 <i>or</i>
PSAT10 Reading or PSAT/NMSQT Reading (taken 10/1/15 or later) $\geq$ 22 <i>or</i>
ACT Aspire Reading* $\geq$ 422 <i>or</i>
ASVAB-AFQT Composite $\geq$ 31 <i>or</i>
Meet the criteria of the NJDOE Portfolio Appeal

<b>Mathematics</b>
PARCC Algebra I $\geq$ 750 (Level 4) <i>or</i>
PARCC Geometry $\geq$ 725 (Level 3) <i>or</i>
PARCC Algebra II $\geq$ 725 (Level 3) <i>or</i>
SAT Math (taken before 3/1/16) $\geq$ 400 <i>or</i>
SAT Math Section (taken 3/1/16 or later) $\geq$ 440 <i>or</i>
SAT Math Test (taken 3/1/16 or later) $\geq$ 22 <i>or</i>
ACT Math or ACT PLAN Math* $\geq$ 16 <i>or</i>
Accuplacer Elementary Algebra $\geq$ 76 <i>or</i>
PSAT10 Math or PSAT/NMSQT Math (taken before 10/1/15) $\geq$ 40 <i>or</i>
PSAT10 Math or PSAT/NMSQT Math (taken 10/1/15 or later) $\geq$ 22 <i>or</i>
ACT Aspire Math* $\geq$ 422 <i>or</i>
ASVAB-AFQT Composite $\geq$ 31 <i>or</i>
Meet the criteria of the NJDOE Portfolio Appeal

*\* Indicates test is no longer administered but can be used for the graduating year.  
Note: The symbol  $\geq$  means a score greater than or equal to*

## **B. College Admission Assessments**

In addition to academic courses, Bound Brook High School offers a preparatory session for college admissions tests (a chance to take the PSAT exam).

*Students should contact their counselors for information regarding these programs.*

### **Procedure for Calculating Honor Roll**

Bound Brook High School recognizes outstanding scholarship by its Honor Roll. Qualifications are as follows:

- High Honor Roll - Students must have a 91 or higher in all classes. Also, students must be in at least 5 graded classes (PE does count towards the total # of classes).
- Honor Roll – Students must have a 85 or higher in all classes. PE is excluded, but you cannot have a failing grade. Also, students must be in at least 5 graded classes (PE does count towards the total # of classes).

Students must be enrolled in a minimum of 5 academic courses in order to be eligible for honor roll status. Please note that honor roll status is calculated using the un-rounded (actual) average.

### **Grading:**

#### ***Policy Statement:***

“The Board recognizes that a system of grading student achievement can help the student, the teacher and the parent to assess his/her progress toward his/her educational goals and to assist in the implementation of that progress. Grading shall be that system of measuring and recording student progress and achievement which enables the student, his/her parents and teachers to learn his/her strengths and weaknesses, plan an educational future in the areas of the greatest potential for success, and know where remedial work is required. The Board directs that the instruction program of this district include a system of grading which is consistent with the educational goals of the district.”

#### **Procedures at Bound Brook High School:**

##### ***Grading System:***

1) The grading system is numerical.

A = 90-100  
B = 80-89  
C = 70-79  
D = 65-69  
F = below 65

2) Pre-Assessments and Post-Assessments will be administered, as well as Quarterly Assessments

3) The final grade in a full year course is a combination of four marking periods. The final grade in a semester course is a combination of two marking periods for that course.

4) Any grade below 65 is failing.

## Grading Policy:

- 1) To allow for a smooth transition into new courses and levels, a minimum failing grade of 55 will be reported for the first two marking periods of a full year course.
- 2) In semester courses, the minimum failing grade of fifty (55) will be reported for the first marking period of the semester.
- 3) Students who do absolutely no work will receive an “NW” for that marking period in which a minimum failing grade is in effect. The “NW” will be computed as a zero (0).
- 4) For mid-year averages, other marking periods, post-assessments and final averages, quarterly assessments, actual numerical grades will be reported.
- 4) Students fully aware of the individual or departmental grading criteria used within their classes. This should include, for example, penalties for late or missing assignments, consequences of cheating, and how class participation is evaluated.

## Behavior and Grades:

A student’s behavior pattern is not to influence the academic grade rendered by the teacher. Discipline problems are handled in a variety of ways, which may be reviewed with a Building Administrator. The purpose of a grade is an evaluation of academic achievement.

## Calculating Grades:

For a full year course, each Marking Period will be worth 25%:

### Breakdown for Full Year Course

Marking Period 1-25%  
Marking Period 2-25%  
Marking Period 3-25%  
Marking Period 4-25%  
**Total: 100%**

### Breakdown for Half-Year Course

Marking Period 1-50%  
Marking Period 2-50%  
**Total: 100%**

**OR**

Marking Period 3-50%  
Marking Period 4-50%  
**Total: 100%**

Students will be expected to take quarterly assessments, which will be used more frequently and commonly to monitor students’ performance in meeting the curriculum and aligned standards. The quarterly assessment will be utilized as **ONE** “major assessment” grade, no more or no less, which will count towards each marking period quarter grade.



## ATHLETIC ELIGIBILITY

According to the N.J.S.I.A.A. (information can be found on the website [www.njsiaa.org](http://www.njsiaa.org)):

A student, to be eligible for participation in the interscholastic athletic program of a member school, must be enrolled in that school and must meet all the eligibility requirements of the Constitution, Bylaws, and Rules and Regulations of the N.J.S.I.A.A.

To be eligible for athletic competition during the first semester (September 1 to January 31) of the 10th grade or higher, or the second year of attendance in the secondary school or beyond, a pupil must have passed 25% of the credits (30) required by the State of New Jersey for graduation during the immediately preceding academic year.

The above shall not apply to incoming students from grammar school (8<sup>th</sup> grade).

To be eligible for athletic competition during the second semester (Feb. 1 to June 30) of the 9th grade or higher, a pupil must have passed the equivalent of 12.5% of the credits (15) required by New Jersey for graduation 120 at the close of the preceding semester (Jan. 31). Full-year courses shall be equated as one-half of the total credits to be gained for the full year to determine credits passed during the immediately preceding semester.

All regulations pertaining to student athletes will conform to the current N.J.S.I.A.A. guidelines and the rules and regulations of the Bound Brook Board of Education.

### Recommended Course Load

*(The following is only an example; schedules may vary.)*

#### **Grade 9 (35 total credits):**

<i>Required Courses:</i>	Credits
1. English I . . . . .	5
2. US History I . . . . .	5
3. Physical Science . . . . .	5
4. Algebra I . . . . .	5
5. Physical Education . . . . .	3.25
6. Health 9- Drug, Alcohol and Reproduction Education . . . . .	1.75
<i>Recommended Courses:</i>	
7. World Language . . . . .	5
8. Visual or Performing Arts . . . . .	5

#### **Grade 10 (35 total credits):**

<i>Required Courses:</i>	Credits
1. English II . . . . .	5
2. US History II . . . . .	5
3. Biology . . . . .	5
4. Algebra II . . . . .	5
5. Physical Education . . . . .	3.25
6. Health 10- Driver's Education . . . . .	1.75
<i>Recommended Courses:</i>	
7. Financial Literacy . . . . .	2.5
8. World Language . . . . .	5
9. Semester Elective Course . . . . .	2.5

#### **Grade 11 (35 total credits):**

<i>Required Courses:</i>	Credits
1. English III . . . . .	5

2. Modern World History . . . . .	5
3. Chemistry . . . . .	5
4. Geometry . . . . .	5
5. Physical Education . . . . .	3.25
6. Health 11- First Aid and Cardiopulmonary Resuscitation (CPR) . . . . .	1.75

*Recommended Courses:*

7. 21 <sup>st</sup> Century Career/Technology . . . . .	5
8. Visual/Performing Arts . . . . .	5

**Grade 12 (35 total credits):**

*Required Courses:*

Credits

1. English IV . . . . .	5
2. Physical Education . . . . .	3.25
3. Health 12- Relationships and Healthy Living . . . . .	1.75

*Recommended Courses:*

4. Physics or Anatomy and Physiology . . . . .	5
5. Pre Calculus or Applied Math. . . . .	5
6. Intro to Psychology or Sociology . . . . .	5
7. 21 <sup>st</sup> Century Career/Technology . . . . .	5
8. Elective . . . . .	5

## BUSINESS AND MARKETING EDUCATION

The Business and Marketing Courses are designed to ensure Bound Brook High School students can experience these highly competitive careers to prepare them for college and career readiness.

*Graduation Requirements: Financial Literacy and a course in 21<sup>st</sup> Century Career/Technology*

### **ACCOUNTING** **Grade Level 10, 11, 12** **5 Credits**

#### **Prerequisite: None**

This course is designed to give students the understanding of how financial decisions affect the business world, and how accounting serves to make those decisions fiscally strong. Students will gain an understanding of accounting principles that businesses use. The course will discuss accounting careers and college preparation for business majors. After completing this course students will be well suited for first year college level accounting. Unit studies include accounting terminology, accounting principles, creating financial documents for managerial decision-making, accounting careers and demand for accounting majors, and business simulations.

### **21<sup>st</sup> CENTURY CAREERS** **Grade Level 9, 10, 11, 12** **5 Credits**

#### **Prerequisite: None**

This course is designed to introduce students to various career clusters and the process that requires purposeful planning based on research, self-knowledge, & informed choices. Topics covered in this course include 21<sup>st</sup> Century Skills, career exploration, career preparation, employment trends, employee rights, and entrepreneurship.

### **BUSINESS LAW** **Grade Level 10, 11, 12** **5 Credits**

#### **Prerequisite: None**

This course helps students gain a better understanding of their rights and responsibilities as citizens of the United States. This course covers both personal law as well as business law. Subjects that are studied include both criminal and civil law and how they relate to our society and to the business world. Students are encouraged to participate in well -rounded respectful conversation regarding any major legal issue that may be presented. Students are encouraged to share their beliefs in regards to legal issues and to share those beliefs with the class. Unit content includes sources of law, distinguish between different types of crimes, evaluate legal issues that our society faces, criminal law versus tort law, elements of a contract, legal forms of business, courtroom procedures, analyze case studies, serial killer project, and landmark case studies.

### **FINANCIAL LITERACY** **Grade Level 10, 11, 12** **5 Credits**

#### **Prerequisite: None**

This course is designed to help students develop basic economic reasoning that will enable the student to operate intelligently and to promote an understanding of our economic system and the interrelationships of the individual with business and government. Topics covered in this course include money management, checking accounts, savings accounts, credit, buying goods and services, and insurance.

### **SPORTS AND ENTERTAINMENT MARKETING** **Grade Level 9, 10, 11, 12** **5 credits**

#### **Prerequisite: None**

This course introduces the basic functions of marketing and how vital it is in today's world and economic system. This course is designed to introduce students to the fundamentals of marketing through the sports and entertainment industries. Topics covered in this course include world of marketing, sports market, entertainment market, product and price decisions, branding and licensing, images and licensing, sports and entertainment market research and outlets, and sports and entertainment promotion.

## ENGLISH

The English Courses are designed to develop students' critical thinking, listening, speaking, reading, writing, and study skills for the 21<sup>st</sup> Century Learner. Bound Brook High School students will be challenged to develop competency in their use of the English language to prepare them for college and career readiness.

*Graduation Requirements: English I, II, III and IV*

**ENGLISH I CP** **Grade Level 9** **5 Credits**  
**Prerequisite: Successful Completion of Grade 8 Language Arts**

This course is the study of literature with a focus on writing. Emphasis should be on helping students approach literature and writing at a pace appropriate to their abilities. Students will read a variety of literary genres including short stories, essays, novels, drama and poetry and write in response to the literature. Students will continue to learn about the writing process in order to foster confidence in developing a written voice, use of mechanics and enhanced vocabulary. This course will cover traditional grammar usage, study skills, library research, vocabulary, listening skills and oral communication. Multimedia projects are incorporated into the curriculum for the 21st Century learner.

**ENGLISH I HONORS** **Grade Level 9** **5 Credits**  
**Prerequisite: Grade Eight Teacher Recommendation, 93% Grade 8 Language Arts, Grade Eight PARCC Assessment Score, Completion of Entrance Essay (graded by High School English Teachers), and completion of summer assignments.**

This course is an accelerated course designed for students who are academically advanced and eager to foster a deeper understanding of a variety of literary genres. This course requires students to exercise all of their communication skills. Students will demonstrate an understanding of literary and rhetorical devices by writing narrative, expository, persuasive, and research essays. In order to further develop their reading comprehension and writing skills, all students are expected to actively and consistently participate in independent writing, group projects, and class discussion. In the middle and at the end of the year, students will draw connections between a variety of fictional and non-fictional texts by completing research assignments.

**ENGLISH II CP** **Grade Level 10** **5 Credits**  
**Prerequisite: Successful Completion of English I and Summer Assignment**

This course is a survey of World Literature. Students read a selection of writers from across the globe, expanding their knowledge of different cultures, heritages and traditions. The course emphasizes active reading strategies and critical thinking skills, encouraging students to see literary texts from multiple perspectives, and to evaluate the strengths and limits of those viewpoints. With this goal in mind, the class includes a considerable amount of intellectual off-roading, developing beyond the framework of literary studies to include informational texts and literary nonfiction that challenge and enrich our sense of who we are, where we come from, and where our world might be headed. A debate unit on *The Ethics of Genetic Engineering* provides models for how to speak and listen in an informed way about a controversial issue. Passage-based reading will be the primary training ground for reading comprehension, but certainly not the only one: there are opportunities for creative writing (haiku cut-up, collage narratives), journaling, and data mining for literary elements. Overall, the course cycles through some of literature's most enduring themes, including The Price of Progress, Overcoming Challenges, Clashing Forces, and The Hero's Journey. Major readings include: *Catcher in the Rye*, *The Adventures of Ulysses*, *Lord of the Flies*, *Cry, the Beloved Country*, and *Julius Caesar*.

**ENGLISH II HONORS****Grade Level 10****5 Credits****Prerequisite: Successful Completion of English I with a 93% or better, English I Teacher Recommendation, and Summer Assignment**

The American novelist Willa Cather once wrote: “There are only two or three human stories, and they go on repeating as fiercely as if they’d never happened before.” How might these stories look from another cultural perspective? In this course, we will attempt to answer this question, traveling back in time to explore the myths of Ancient Greece, and then using those myths – those “human stories” repeating so fiercely everywhere – as a set of patterns for grasping the meaning of other texts through cultural literacy. This course encourages students to evaluate the strengths and limits of arguments (Cather’s, for example), anticipate counterarguments, and to venture beyond the ordinary limits of literary study to incorporate insights from other disciplines. Additional emphasis will be placed on 21<sup>st</sup> Century Skills, including the use of technology to share writing with other students as well as the instructor. Major readings may include: *The Odyssey, 1984, Lord of the Flies, Julius Caesar, and The God of Small Things*.

**ENGLISH III CP****Grade Level 11****5 Credits****Prerequisite: Successful Completion of English II and Summer Assignment**

This course will study a survey of American Literature in various genres of novel, short story, drama, and poetry, as well as non-fiction by American writers prepares students in all aspects of the language arts, including reading, writing, listening, speaking, and viewing. Reading comprehension, critical thinking, reading and writing, vocabulary development and application, analysis and discussion of literary features, and oral expression of formal academic English are major aspects of this course. A formal academic MLS supported research paper and preparation for SAT and HSPA testing are included. Each marking period, students will engage in independent and/or collaborative projects/presentations/essays as unit extensions for enhanced learning.

**ENGLISH III HONORS****Grade Level 11****5 Credits****Prerequisite: Successful Completion of English II with a 93% or better, English II Teacher Recommendation, and Summer Assignment**

This is an accelerated course that requires students to think deeply and richly about American Literature in fiction and non-fiction. Students should expect a rigorous, challenging, active experience in the course. This course will study a survey of American Literature in various genres of novel, short story, drama, and poetry, as well as non-fiction by American writers prepares students in all aspects of the language arts, including reading, writing, listening, speaking, and viewing. Reading comprehension, critical thinking, reading and writing, vocabulary development and application, analysis and discussion of literary features, and oral expression of formal academic English are major aspects of this course. A formal academic MLS supported research paper and preparation for SAT and HSPA testing are included. Each marking period, students will engage in independent and/or collaborative projects/presentations/essays as unit extensions for enhanced learning.

**ENGLISH IV CP****Grade Level 12****5 Credits****Prerequisite: Successful Completion of English III and Summer Assignment**

This is a course in the study of British literature and composition. Students will read and analyze works from a variety of authors and genres. They will contrast major literary forms, techniques, and characteristics of the major literary periods and they will relate the literary works and authors to the major themes and issues of these eras. Emphasis in the writing process is on the essay, research paper, and analysis of themes in the literature. This course will reinforce spelling, mechanics and grammar as each student advances through the pre-writing, writing, revising, and publishing stages of essay development. Students will create descriptive, evaluative, and informative essays, complete college and career readiness work as well as complete a research project. Multimedia projects are incorporated into the curriculum for the 21st Century learner. Students will respond orally to the literature in all genres and give a year-end oral presentation that summarizes their research project.

**ENGLISH IV HONORS****Grade Level 12****5 Credits****Prerequisite: Successful Completion of English III with a 93% or better, English III Teacher Recommendation, and Summer Assignment**

This is an accelerated course that requires students to think deeply and richly about both fiction and non-fiction. Students should expect a rigorous, challenging, active experience in the course. This course will study British literature and composition by reading and analyzing works from a variety of authors and genres. Students will contrast major literary forms, techniques, and characteristics of the major literary periods and will relate the literary works and authors to the major themes and issues of these eras. Emphasis in the writing process is on the essay, research paper, and analysis of themes in the literature. This course will reinforce spelling, mechanics and grammar as each student advances through the pre-writing, writing, revising, and publishing stages of essay development. Students will create descriptive, evaluative, and informative essays, complete college and career readiness work as well as complete a research project. Multimedia projects are incorporated into the curriculum for the 21st Century learner. Students will respond orally to the literature in all genres and give a year-end oral presentation that summarizes their research project.

**ENGLISH IV LANGUAGE AND COMPOSITION AP****Grade Level 12****5 Credits****Prerequisite: Successful Completion of English III with a 93% or better, English III Teacher Recommendation, and Summer Assignment**

This course engages students in becoming skilled readers of prose written in a variety of rhetorical contexts and in becoming skilled writers who compose for a variety of purposes. Students' predominately focus on non-fiction texts where they examine the interaction of the writer's purpose, an audience's expectations and the subject matter. The conventions of effective rhetoric are unpacked and perused to reveal the techniques and craft of successful writers.

**ENGLISH IV LITERATURE AND COMPOSITION AP****Grade Level 12****5 Credits****Prerequisite: Successful Completion of English III with a 93% or better, English III Teacher Recommendation, and Summer Assignment**

This course is a full year course designed to meet the expectations of a freshman literature and composition class at the college level. Students will read critically from novels, short stories, drama and poetry. Through a close reading of a variety of literary works, students will learn to analyze texts of different genres and literary periods. In exploring these texts, students will develop and hone compositional skills to foster confidence and proficiency in creative, expository, and persuasive writing. During the first half of the year, composition will focus on the writing process, revision, reflection, and work-shopping papers through teacher/student conferencing and peer review. In conjunction with working papers from drafts to finished writings, students will develop skills in composing a variety of sentences that deploy several types of syntactical structures. Major readings may include: *Candide*, *Mrs. Dalloway*, *Heart of Darkness*, *The Sun Also Rises*, *The Awakening*, *Hamlet*, *The Metamorphosis*, and *Catch-22*. This is a college level course that students can receive college credits through the AP Exam or through concurrent enrollment at Raritan Valley Community College.

**ENGLISH ELECTIVES**

*These courses do not fulfill the English requirements for graduation.*

**CREATIVE WRITING****Grade Level 10, 11, 12****2.5 Credits****Prerequisite: Successful Completion of required English Courses with an 80% or better**

This is a one-semester course that explores writing as art. Students will read, analyze, and create works of fiction, non-fiction, drama, and poetry. Throughout the semester, students will compile a portfolio of revised work. This course provides the time, instruction, and skills necessary to pursue meaningful creative writing. Reading to write involves studying the history of master writers and genres as well as the craftsmanship inherent to creation. Creative writing features include consideration of audience, figurative language, cross-genre writing, performance, and publication.

**SAT PREP-READING/MATHEMATICS****Grade Level 10, 11, 12****2.5 Credits****Prerequisite: None**

This course is an elective that is meant for students planning to attend a four-year college and take the SATs. The course's full focus is on preparing students for the SATs on the three areas of Mathematics, Reading, and Writing.

Students will switch weekly between working on the Mathematics and English sections. During the Mathematics weeks, students will learn specific SAT strategies such as eliminating answers, strategic guessing, etc. They will complete 6-8 full SAT practice exams after which the errors will be analyzed and corrected. The course of study is flexible and will be adjusted to the performance of the students as SAT Mathematics topics range from Algebra I through Geometry and into Algebra II. Students will learn how the SATs are scored and what the scores mean. They will, furthermore, research potential colleges and look into the application process to their potential schools.

During the English weeks students will learn common SAT vocabulary and how to answer the different types of vocabulary questions. Students will study informational texts and learn strategies on how to improve their information recollection and critical thinking skills in order to improve their reading scores. An emphasis will also be placed grammar and essay writing in order to prepare the students for the SAT writing section.

Students are encouraged to sign up and take the SATs during the last weeks of the course in order to ensure the highest score possible.

## ENGLISH AS A SECOND LANGUAGE (ESL)

English as a Second Language (ESL) instruction is an academic discipline that is designed to teach English language learners social and academic language skills as well as the cultural aspects of the English language necessary to succeed in an academic environment and contribute to society. It involves curriculum focusing on listening, speaking, reading, and writing at appropriate developmental and proficiency levels with little or no use of the native language. The objectives of the ESL program are to develop both the basic interpersonal communication skills (BICS) and the cognitive academic language proficiencies (CALPS).

Planned instruction in ESL includes listening, speaking, reading and writing at different levels of proficiency (Entering, Emerging, Developing, Expanding, Bridging). The amount and type of standards-based ESL instruction provided to students will depend upon their level of language development and proficiency as determined by multiple criteria including student reading level, student success in the current ESL course placement, student success in mainstream courses, the New Jersey state ACCESS assessment for English language proficiency, and teacher recommendations.

### Levels of Proficiency

1. Entering
2. Emerging
3. Developing
4. Expanding
5. Bridging

### Exit Criteria

1. ACCESS test score
2. Mainstream teacher recommendation
3. ESL teacher recommendation
4. Report Cards
5. Formal state assessments
6. Informal classroom assessments

### ESL-ENTERING

Grade Level 9, 10, 11, 12

5 Credits

**Prerequisite:** Placement by Assessment, ACCESS or W-APT Score

This course introduces students to basic structures and vocabulary of the English language through the skills of reading, writing, speaking, and listening. Students learn strategies in order to advance their reading, listening, and pronunciation skills. They expand oral comprehensibility and write complete sentences, a standard paragraph, and short content-based essays. They utilize level-appropriate conventions of grammar and punctuation with a minimum of errors. This is a high intensity ESL course, which is held Monday through Friday, two periods per day.

### ESL-EMERGING

Grade Level 9, 10, 11, 12

5 Credits

**Prerequisite:** Successful Completion of ESL-Entering, ACCESS Score Demonstrating English Proficiency, and Teacher Recommendation

This course is an extension of the skills learned previously in Entering ESL. It focuses on syntax, continued vocabulary development, reading, listening comprehension, speaking and pronunciation skills, and writing multiple-paragraph compositions that demonstrate organization of ideas, use of a thesis statement, and supportive elements. Intensive grammar instruction that supports academic writing skills is emphasized. This is a high intensity ESL course, which is held Monday through Friday, two periods per day.



**ESL-DEVELOPING****Grade Level 9, 10, 11, 12****5 Credits****Prerequisite: Successful Completion of ESL-Emerging ACCESS Score Demonstrating English Proficiency, and Teacher Recommendation**

This course is an extension of the skills learned previously in Emerging ESL. It focuses on syntax, continued vocabulary development, reading, listening comprehension, speaking and pronunciation skills, and writing multiple-paragraph compositions that demonstrate organization of ideas, use of a thesis statement, and supportive elements. Intensive grammar instruction that supports academic writing skills is emphasized. This is a high intensity ESL course, which is held Monday through Friday, two periods per day.

**ESL-EXAPANDING****Grade Level 9, 10, 11, 12****5 Credits****Prerequisite: Successful Completion of ESL-Developing, ACCESS Score Demonstrating English Proficiency, and Teacher Recommendation**

In this course, advanced English language learners use and extend their vocabulary, grammar, and communication skills more consciously and effectively for academic purposes. This course is similar to a mainstream English course in that students read nonfiction literature and write essays of various forms. This course is held Monday through Friday, one period per day.

**ESL-BRIDGING****Grade Level 9, 10, 11, 12****5 Credits****Prerequisite: Successful Completion of ESL-Expanding ACCESS Score Demonstrating English Proficiency, and Teacher Recommendation**

In this course, advanced English language learners use and extend their vocabulary, grammar, and communication skills more consciously and effectively for academic purposes. This course is similar to a mainstream English course in that students read nonfiction literature and write essays of various forms. This course is held Monday through Friday, one period per day.

## MATHEMATICS

The Mathematics Courses are designed to develop knowledge skills necessary for students to be college and career ready and reflect the high academic expectations of the Common Core State Standards. Bound Brook High School students will be challenged to develop competency in understanding of concepts, multiple representations and connections, mathematical modeling, and mathematical problem solving.

*Graduation Requirements: Three Years of Mathematics*

### **ALGEBRA I CP** **Grade Level 9** **5 Credits** **Prerequisite: Successful Completion Grade 8 Mathematics**

This course is the foundation for all high school mathematics courses. Algebra, being the language through which most of mathematics is communicated, is a fundamental life skill. Algebra 1 makes the transition from the specifics of arithmetic to the generalizations of higher mathematics. The ability to use algebraic thinking in real-life situations is developed. Graphs and equations are needed to express and visualize these relationships and situations. Real world applications are presented throughout the course with an emphasis on functions.

Students study the fundamental concepts, skills, and techniques traditionally associated with algebra. These techniques examine the structure of the real number system and the properties that permit us to perform algebraic operations. Considerable attention is placed on simplifying and evaluating expressions, solving equations and inequalities, graphing linear and quadratic functions, and problem solving with the use of the calculator as a tool. Solving systems of equations and inequalities, exponents and exponential functions, polynomials and factoring and working with radical and rational expressions are also covered.

### **ÁLGEBRA I BILINGÜE (ESPAÑOL)** **Nivel de Grado 9** **5 Créditos** **Pre- requisito: Haber terminado con éxito Matemáticas del 8vo Grado**

Álgebra 1 es la base para todos los cursos de matemáticas del colegio de secundaria. Álgebra, siendo el lenguaje a través del cual la mayor parte de las matemáticas se comunica, es una habilidad fundamental de la vida. Álgebra 1 hace la transición de los aspectos específicos de la aritmética a las generalizaciones de las matemáticas superiores. Se desarrolla la capacidad de utilizar el pensamiento algebraico en situaciones de la vida real. Se necesitan gráficos y ecuaciones para expresar y visualizar estas relaciones y situaciones. Aplicaciones del mundo real se presentan dentro de los contenidos del curso y se acentúa el enfoque de una función.

Los alumnos estudian los conceptos fundamentales, las habilidades y las técnicas tradicionalmente asociados con el álgebra. Estas técnicas examinan la estructura del sistema de números reales y las propiedades que nos permiten realizar operaciones algebraicas. Se pone mucha atención en la simplificación y la evaluación de expresiones, la resolución de ecuaciones y desigualdades, gráficas lineales y funciones cuadráticas, y la solución de problemas con el uso de la calculadora como herramienta. Resolviendo sistemas de ecuaciones y desigualdades, exponentes y funciones exponenciales, polinomios y factorización de problemas y trabajando con expresiones radicales y racionales también están cubiertos.

### **ALGEBRA I HONORS** **Grade Level 9** **5 Credits** **Prerequisite: Successful Completion of Grade 8 Mathematics with a 90% or better and Grade 8 Teacher Recommendation**

This course is the foundation for all high school mathematics courses. The Honors student will be required to complete more challenging problems and examine the mathematics involved at a much deeper level. Selected students must be self-reliant and disciplined to persevere through individual and team projects with limited guidance from the teacher.

**Algebra I Honors Description Continued:** Algebra, being the language through which most of mathematics is communicated, is a fundamental life skill. Algebra 1 makes the transition from the specifics of arithmetic to the generalizations of higher mathematics. The ability to use algebraic thinking in real-life situations is developed. Graphs and equations are needed to express and visualize these relationships and situations. Real world applications are presented within the course content and a function's approach is emphasized.

Students study the fundamental concepts, skills, and techniques traditionally associated with algebra. These techniques examine the structure of the real number system and the properties that permit us to perform algebraic operations. Considerable attention is placed on simplifying and evaluating expressions, solving equations and inequalities, graphing linear and quadratic functions, and problem solving with the use of the calculator as a tool. Solving systems of equations and inequalities, exponents and exponential functions, polynomials and factoring and working with radical and rational expressions are also covered.

## **ALGEBRA II CP**

**Grade Level 10**

**5 Credits**

### **Prerequisite: Successful Completion of Algebra I**

This course is the last traditional course in the college preparatory sequence. In this course, students' build on their knowledge of Algebra I to revisit and advance their understanding of concepts, skills, and techniques traditionally associated with Algebra. For example, knowledge of linear function is used to solve system of equations in two and three dimensions. Considerable attention is placed on quadratic equations, factoring, and maximization with an emphasis on real life applications of these skills. Students are introduced to several other non-linear function types such as radical, polynomial, and exponential models. Algebra, being the language through which most of mathematics is communicated, is a fundamental life skill. Algebra II makes the transition from linear relations to other type of functions that are needed to model real world occurrences. The ability to apply abstract thinking to develop and test theories/models is developed. This course will help prepare students for college mathematics courses and college entrance exams such as the SAT and the ACT.

## **ALGEBRA II HONORS**

**Grade Level 9-10**

**5 Credits**

### **Prerequisite: Successful Completion of Algebra I Honors with a 90% or better in CP or a 75% or better in Honors and Algebra I Teacher Recommendation**

This course is the last traditional course in the college preparatory sequence. In this course, students built on their knowledge of Algebra II to revisit and advance their understanding of concepts, skills, and techniques traditionally associated with Algebra. For example, knowledge of linear function is used to solve system of equations in two and three dimensions. Students will learn how to translate systems of equations into matrices and how to use matrices as a tool for solving multi-dimensional systems of equations. This approach is then used to create a methodology to solve problems in the 4<sup>th</sup>, 5<sup>th</sup>, and n<sup>th</sup> dimension. Considerable attention is placed on quadratic equations, factoring, and maximization with an emphasis on real life applications of these skills. Students are introduced to several other non-linear function types such as radical, polynomial, exponential, and trigonometric models. Algebra, being the language through which most of mathematics is communicated, is a fundamental life skill. Algebra II Honors makes the transition from linear relations to other type of functions that are needed to model real world occurrences. The ability to apply abstract thinking to develop and test theories/models is developed.

Algebra II Honors prepares a student for Pre-Calculus Honors and is a crucial stepping-stone for students interested in the hard sciences (such as Physics, Biology, Chemistry, Mathematics, and Statistics). This course will help prepare students for college mathematics courses and college entrance exams such as the SAT and the ACT.

**GEOMETRY CP****Grade Level 11****5 Credits****Prerequisite: Successful Completion of Algebra I and Algebra II**

This course is a fundamental course with concepts and skills necessary for advanced mathematics. It explores the relationships among points, lines, and planes in two and three-dimensional space. Many geometric concepts are presented from both a numerical and algebraic point of view. Algebraic skills acquired in Algebra I are used extensively. Emphasis is also placed on inductive and deductive reasoning using proofs. Since students need to develop their reasoning ability to become self-reliant, independent thinkers, geometry helps students discover a math system that can be logically developed from simple intuitive concepts. The proof concept that every statement has a corresponding reason relates directly to real-life situations and the ability to use a step-by-step procedure to solve real-world problems.

**GEOMETRÍA BILINGÜE (ESPAÑOL)****Nivel de Grado 11****5 Créditos*****Pre-requisito: Haber terminado con éxito Álgebra I***

Geometría es un curso fundamental con los conceptos y las habilidades necesarias para las matemáticas avanzadas. Explora las relaciones entre puntos, líneas y planos en planos de espacio bidimensional y tridimensional. Muchos de los conceptos geométricos se presentan tanto desde el punto de vista numérico y algebraico. Habilidades algebraicas adquiridos en Álgebra I se utilizan ampliamente. También se hace hincapié en el razonamiento inductivo y deductivo mediante pruebas. Dado que los estudiantes necesitan desarrollar su capacidad de razonamiento para convertirse en pensadores independientes y autosuficientes, geometría ayuda a los estudiantes a descubrir un sistema matemático que puede desarrollarse lógicamente de conceptos intuitivos simples. La prueba de concepto de que todo enunciado tiene una razón correspondiente se relaciona directamente con las situaciones de la vida real y la capacidad de utilizar un procedimiento paso a paso para resolver problemas del mundo real. En el curso de honores, se pone énfasis en el razonamiento y las habilidades de resolución de problemas. El curso también profundiza en las relaciones del triángulo, triángulo rectángulo y la trigonometría triángulo oblicuo y círculos.

**GEOMETRY HONORS****Grade Level 11****5 Credits****Prerequisite: Successful Completion of Algebra I and Algebra II with a 90% or better in CP or a 75% or better in Honors and Algebra I and II plus Teacher Recommendation**

This course is a fundamental course with concepts and skills necessary for advanced mathematics. It explores the relationships among points, lines, and planes in two and three-dimensional space. Many geometric concepts are presented from both a numerical and algebraic point of view. Algebraic skills acquired in Algebra I are used extensively. Emphasis is also placed on inductive and deductive reasoning using proofs. Since students need to develop their reasoning ability to become self-reliant, independent thinkers, geometry helps students discover a math system that can be logically developed from simple intuitive concepts. The proof concept that every statement has a corresponding reason relates directly to real-life situations and the ability to use a step-by-step procedure to solve real-world problems. In the honors course, emphasis is placed on reasoning and problem solving skills. The course also goes in depth into triangle relationships, right triangle and oblique triangle trigonometry, and circles.

**PRE-CALCULUS HONORS****Grade Level 11, 12****5 Credits****Prerequisite: Successful Completion of Algebra II 85% or better in CP or 75% or better in Honors, Qualifying Score on the College Board Accuplacer Exam, Algebra II Teacher Recommendation, and Successful completion of Summer Preparatory Program.**

This course is the last requirement for calculus and a very rigorous course with emphases on abstract thinking, relationships between graphs and equations, and proofs. It is broken down into a two-semester sequence of courses. A grade of C or higher is required during the 1<sup>st</sup> semester to be registered for the second semester of Pre-Calculus.

The first semester focuses on non-linear functions with an emphasis on polynomial, rational, exponential, and logarithmic models. Students are deeply involved in the derivation of rules, techniques, and

theorems associated with non-linear functions. Special attention is placed on the visual and verbal representation of non-linear relationships as well as real world problem solving.

The second semester focuses on conic cross-sections such as circles, ellipses, hyperbolas, and parabolas and trigonometry. Students will learn about trigonometric identities and the unit circle. Emphasis will be placed on deriving trigonometric theorems and proving trigonometric identities. This is a college level course that students can receive college credits through concurrent enrollment at Raritan Valley Community College.

### **QUANTITATIVE REASONING**

**Grade Level 11, 12**

**5 Credits**

**Prerequisite: Successful Completion of Algebra II, Qualifying score on the College Board Accuplacer Exam and Algebra II Teacher Recommendation**

This course builds upon algebra to cover mathematical concepts such as deductive reasoning, functions, logarithms, personal finance, statistics, and probability. Students will explore data analysis, functions, and graphs as they relate to fiscal, environmental, and health applications, quantitative reasoning and statistical thinking. The course develops students' ability to reason with quantitative information and great emphasis will be given to the application of mathematical arguments to real-life situations. In addition, students will learn to use technology to analyze and solve problems, and to communicate mathematical ideas orally and in writing. This is a college level course that students can receive college credits through concurrent enrollment at Raritan Valley Community College.

### **STATISTICS AP**

**Grade Level 11, 12**

**5 Credits**

**Prerequisite: Successful Completion of Algebra II with a 90% or better and Algebra II Teacher Recommendation**

This course is designed to prepare students for success on the College Board Advanced Placement Exam in May. The topics of the course are divided into four major themes: exploratory analysis, planning and conducting a study, probability, and statistical inference. Students will learn to make use of graphical and numerical techniques to study patterns and data. Various data collection methods will be studied to ensure that samples provide reliable representations of the population. The mathematical description of variation is central to statistics, and as such, random phenomenon will be examined in the context of the long run, and will be oriented toward using probability distributions to describe data. Finally, students will learn to draw conclusions from data through inferential and diagnostic methods including making a statement in probability language, of how confident one can be about the selection.

### **AP CALCULUS AB**

**Grade Level 12**

**5 Credits**

**Prerequisite: Successful Completion of Pre-Calculus Honors with an 85% or better and Pre-Calculus Honors Teacher Recommendation**

This course revisits all functions covered in Algebra and Pre-Calculus, focusing on their rates of change and the accumulation of their areas beneath the curves. This is an Advanced Placement level course and students are expected to take the AP exam during the first week of May. More specifically, students will learn how to approximate the rate of change of functions using arithmetic methods and limits. Students will then apply the principles of limits to arrive at the formal definition for the derivative of all functions covered in Algebra and Pre-Calculus. Derivatives will then be used to better approximate graphs and solve optimization problems. The second part of the course focuses the accumulation of area underneath the curve of a function by examining definite and indefinite integrals and the application of this to the real world. For example, students will examine how a changing velocity can be used to calculate the distance traveled, how to calculate volumes of irregular shapes, in addition to many other applications. This is a college level course that students can receive college credits through the AP Exam or through concurrent enrollment at Raritan Valley Community College.

## MATHEMATICS ELECTIVES

*These courses do not fulfill the Mathematics requirements for graduation.*

### **SAT PREP READING/MATHEMATICS**                      **Grade Level 11, 12**                      **2.5 Credits**

#### **Prerequisite: Successful Completion of Algebra I and Geometry**

This course is an elective that is meant for students planning to attend a four-year college and take the SATs. The course's full focus is on preparing students for the SATs on the three areas of Mathematics, Reading, and Writing.

Students will switch weekly between working on the Mathematics and English sections. During the Mathematics weeks, students will learn specific SAT strategies such as eliminating answers, strategic guessing, etc. They will complete 6-8 full SAT practice exams after which the errors will be analyzed and corrected. The course of study is flexible and will be adjusted to the performance of the students as SAT Mathematics topics range from Algebra I through Geometry and into Algebra II. Students will learn how the SATs are scored and what the scores mean. They will, furthermore, research potential colleges and look into the application process to their potential schools.

During the English weeks students will learn common SAT vocabulary and how to answer the different types of vocabulary questions. Students will study informational texts and learn strategies on how to improve their information recollection and critical thinking skills in order to improve their reading scores. An emphasis will also be placed grammar and essay writing in order to prepare the students for the SAT writing section.

Students are encouraged to sign up and take the SATs during the last weeks of the course in order to ensure the highest score possible.

### **ADVANCED ALGEBRA**                                      **Grade Level 12**                                      **5 Credits**

#### **Prerequisite: Successful Completion of Algebra I, Algebra II, and Geometry**

This course is designed for those students pursuing a four-year college program, who need additional development in Algebra mechanics. The first part of this course further develops those Algebra II skills and concepts. Emphasis is on problem solving. Functions studied include polynomial, rational, exponential, and logarithmic. The second half of the year includes a complete course in Trigonometry. A working knowledge of College Prep level Algebra II is required from the beginning of the course. Scientific and graphing calculators are required.

### **LIBERAL ARTS MATH (APEX)**                              **Grade Level 12**                                      **5 Credits**

#### **Prerequisite: Successful Completion of Algebra I**

Liberal Arts Math is a virtual school math APEX course, which addresses the need for an elective course that focuses on reinforcing, deepening, and extending a student's mathematical understanding. Liberal Arts Math starts with a review of problem-solving skills before moving on to a variety of key algebraic, geometric, and statistical concepts. Throughout the course, students hone their computational skills and extend their knowledge through problem solving and real-world applications.

Course topics include problem solving; real numbers and operations; functions and graphing; systems of linear equations; polynomials and factoring; geometric concepts such as coordinate geometry and properties of geometric shapes; and descriptive statistics.

Within each Liberal Arts Math lesson, students are supplied with a scaffolded note-taking guide, called a Study Sheet, and are given ample opportunity to practice computations in low-stakes Checkup activities before moving on to formal assessment. Additionally, students will have the opportunity to formulate and justify conclusions as they extend and apply concepts through printable exercises and "in-your-own-words" interactive activities. To assist students for whom language presents a barrier to learning or who are not reading at grade level, Liberal Arts Math includes audio resources in English. This course is aligned with NJ Common Core State Standards.

**PRE-CALCULUS CP****Grade Level 11, 12****5 credits****Prerequisite: Successful Completion of Algebra I and Algebra II 85% or better in CP or 75% or better in Honors, Teacher Recommendation**

This course is the last requirement for calculus and a very rigorous course with emphases on abstract thinking, relationships between graphs and equations, and proofs. The first semester focuses on non-linear functions with an emphasis on polynomial, rational, exponential, and logarithmic models. Students are deeply involved in the derivation of rules, techniques, and theorems associated with non-linear functions. Special attention is placed on the visual and verbal representation of non-linear relationships as well as real world problem solving. The second semester focuses on conic cross-sections such as circles, ellipses, hyperbolas, and parabolas and trigonometry. Students will learn about trigonometric identities and the unit circle. Emphasis will be placed on deriving trigonometric theorems and proving trigonometric identities.

## PERFORMING ARTS

Music has developed naturally in every culture. It is an important element to who we are as human beings. The understanding of music requires the development of a wide range of skills essential to success in many aspects of life. Music curriculum should provide quality experiences that are musically meaningful. It should help students discover, understand, and enjoy music as an art form, an intellectual endeavor, a medium of self-expression, and as a means of social growth. The elective courses in the music department are designed to appeal to a variety of interests and levels to create a well-rounded 21<sup>st</sup> Century Learner. Bound Brook High School students will be challenged to develop skills in Performing Arts to prepare them for college and career readiness.

*Graduation Requirements: One Course in Performing or Visual Arts*

### **SYMPHONIC BAND** **Grade Level 9, 10, 11, 12** **5 Credits**

**Prerequisite: Prior Instrumental Experience or Director Approval**

This course is a performance ensemble that will develop and build upon varied skills and elements of musicianship. Students will learn how to read music, play an instrument with proper technique, and evaluate music critically and aesthetically. This course offers students the opportunity to build confidence, musicianship, and performance skills in all who participate, particularly for students who enroll for four years. The Symphonic Band performs at evening concerts and festivals. All concerts will be announced at least one month in advance.

### **CHORUS** **Grade Level 9, 10, 11, 12** **5 Credits**

**Prerequisite: None**

This course offers interested student the opportunity to sing in a group and also receive instruction in the techniques of choral singing. Included in the activities of this group may be concerts, assembly programs, and appearances for civic and community organizations. Evaluation is based on class participation and individual performance of music.

### **HISTORY OF ROCK AND ROLL** **Grade Level 9, 10, 11, 12** **5 Credits**

**Prerequisite: None**

This course is designed for them to gain an overview of the historical foundation of rock and roll, its influences, and its impact on societal norms, trends, and current music. Students will be encouraged to participate actively in class through listening and discussion sessions.

### **MUSIC IN CULTURE** **Grade Level 9, 10, 11, 12** **2.5 Credits**

**Prerequisite: None**

This course is designed for them to gain a better understanding of a variety of music from different cultures, and its impact on respective cultures. Students will learn to listen to music critically with regard to Melody, Harmony, Rhythm, Timbre, and Form. Students will be encouraged to participate actively in class through listening and discussion sessions.

### **MUSIC APPRECIATION** **Grade Level 9, 10, 11, 12** **5 Credits**

**Prerequisite: None**

This course is open to all students who are interested in the elements and principles of music. Included will be the development of critical listening skills, an introduction to the basic theory of music, and the study and analysis of varied, historically and culturally significant music.



**MUSIC TECHNOLOGY****Grade Level 9, 10, 11, 12****2.5 Credits****Prerequisite: None**

This course is a semester class, available both the first and second semester, and is open to all interested students, grades 9-12. This class will cover the evolution of music technology innovations for the personal consumer as well as the professional industry. Students will also utilize software to create, edit, and distribute music in ways to simulate the music production industry.

## PHYSICAL EDUCATION AND HEALTH

### PHYSICAL EDUCATION

Students will gain the knowledge of fitness activities and skills as an individual and within groups to create a life-long experience. The courses are designed to generate a well-rounded 21<sup>st</sup> Century Learner. Bound Brook High School students will be challenged to develop skills and fitness to prepare them for college and career readiness.

*Graduation Requirements: Four Years of Physical Education*

**PHYSICAL EDUCATION: ACTIVITIES**                      **Grade Level 9, 10, 11, 12**                      **3.75 Credits**  
**Prerequisite: None**

This course will consist of all students utilizing safe, efficient and effective movement in correlation with health-related and skill related fitness concepts and skills to develop and maintain a healthy, active lifestyle. All students will participate in the *FitnessGram Assessments* to determine and maintain healthy fitness zones. The course is designed with comprehensive games and skill programs engaging the students in team games, informal games, and recreational activities that have a value in adult life. Activities will included but are not limited to Fitness, Flag Football, Soccer, Basketball, Volleyball, Floor Hockey, Badminton, Pickle-ball, Softball and Co-operative Activities.

**PHYSICAL EDUCATION: CST**                      **Grade Level 9, 10, 11, 12**                      **3.75 Credits**  
**Prerequisite: None**

This course will consist of all students utilizing safe, efficient and effective movement in correlation with health-related and skill related fitness concepts and skills to develop and maintain a healthy, active lifestyle. All students will participate in the *FitnessGram Assessments* to determine and maintain healthy fitness zones. The course is known as *Core Strength Training* and is designed as a weight room activity that will focus on the development of core muscles of the body and components of balance and stability. The program will include but are not limited to the proper techniques to lifting, the anatomy of the human body and components of fitness.

### HEALTH

The courses are designed to generate a well-rounded 21<sup>st</sup> Century Learner with skills and knowledge they can use in their adult life. Bound Brook High School students will be challenged to develop knowledge in all aspects of Health Education to prepare them for college and career readiness.

*Graduation Requirements: Four Years of Health Education*

**DRUG, ALCOHOL AND REPRODUCTION EDUCATION**                      **Grade Level 9**                      **1.25 Credits**  
**Prerequisite: None**

This course will consist of all students acquiring health promotion concepts and skills along with knowledge about the physical, emotional and social aspects of human relationships and sexuality and apply these concepts to support a healthy, active lifestyle. The focus of course will be on the Endocrine System, Male and Female Reproduction Systems, dangers of unprotected sex, STD's and unintended pregnancy and the health and the social effects of drugs and alcohol use and abuse with a concentration of the dangers of addiction.

Drug, Alcohol and Reproduction Education is a quarter year course for the freshman year health requirement that students need to successfully complete for graduation.

**DRIVER'S EDUCATION****Grade Level 10****1.25 Credits****Prerequisite: None**

This course will consist of all students summarizing New Jersey motor vehicle laws and regulations and determining their impact on health and safety (e.g., organ/tissue donation, seatbelt use, and the use of hand-held devices). All students will also analyze the relationship between alcohol and drug use and the incidence of motor vehicle crashes. This is a theory course in which students at the end of the course will be given the chance to take the New Jersey State Motor Vehicle Written Assessment; a *blue card* will be issued after successful completion of the test, allowing the students to obtain their permit after turning sixteen year olds and taking the proper steps according to New Jersey Laws and Regulations for Driving. By New Jersey state law, students are required to complete at least thirty hours of theory instruction.

Driver's Education is a quarter year course for the sophomore year health requirement that students need to successfully complete for graduation.

**FIRST AID AND CARDIOPULMONARY RESUSCITATION****Grade Level 11****1.25 Credits****Prerequisite: None**

This course will consist of all students demonstrating first-aid procedures, including Basic Life Support and automatic external defibrillation, caring for head trauma, bone and joint emergencies, caring for cold and heat injuries, and responding to medical emergencies. The course is guided by regulations of the American Heart Association. Upon successful completion of the course students can receive a Cardiopulmonary Resuscitation (CPR) certification if they purchase the CPR certification card; price of card varies from year to year.

First Aid and (CPR) is a quarter year course for the junior year health requirement that students need to successfully complete for graduation.

**RELATIONSHIPS AND HEALTHY LIVING****Grade Level 12****1.25 Credits****Prerequisite: None**

This course will consist of all students acquiring knowledge about the physical, emotional, and social aspects of human relationships and sexuality and apply these concepts to support a healthy, active lifestyle. The course will also consist of all student applying basic nutritional and fitness concepts to lifestyle behaviors impacts on wellness.

Relationships and Healthy Living is a quarter year course for the senior year health requirement that students need to successfully complete for graduation.

## SCIENCE

The Science Courses are designed to help grow and develop the 21<sup>st</sup> Century Learner's understanding to value science in a multiplicity of disciplines: life, earth and space, and physical sciences. Bound Brook High School students will be challenged to learn the importance of Science to prepare them for college and career readiness.

*Graduation Requirements: Three years of Science*

### **PHYSICAL SCIENCE**

**Grade Level 9**

**5 Credits**

**Prerequisite: Successful Completion of Grade 8 Science with a 93% or better and Grade 8 Teacher Recommendation**

This course explores the physical world around us, including the interaction of matter and energy in the physical world. This course is a hands-on, discovery based, and student centered course. Extensive lab work and real-life applications will be a focus throughout this course. This course is designed to prepare students with fundamental skills such as measuring, data collections and manipulation, observing, and application of the scientific method. Algebra will be learned and used in order to determine physical quantities and important information about various objects and substances. The honors section of this course will provide a deeper look into the mathematics behind Physical Science, including algebraic manipulation, graphical analysis, and geometry. Students will explore the how and why of Physics, and Earth and Space Science with the emphasis that science is a process, not just learned facts and memorization. The first half (MP1 & MP2) of this course will focus on Physics, the third quarter (MP3) will focus on Earth Science, and the fourth quarter (MP4) will focus on Space Science. This course includes a once-a-week lab period in which students will continue to apply learned knowledge to laboratory experimentation and real-life applications.

### **PHYSICAL SCIENCE HONORS**

**Grade Level 9**

**5 Credits**

**Prerequisite: Successful Completion of Grade 8 Science with a 93% or better and Grade 8 Teacher Recommendation**

This course explores the physical world around us, including the interaction of matter and energy in the physical world. This course is a hands-on, discovery based, and student centered course. Extensive lab work and real-life applications will be a focus throughout this course. This course is designed to prepare students with fundamental skills such as measuring, data collections and manipulation, observing, and application of the scientific method. Algebra will be learned and used in order to determine physical quantities and important information about various objects and substances. The honors section of this course will provide a deeper look into the mathematics behind Physical Science, including algebraic manipulation, graphical analysis, and geometry. Students will explore the how and why of Physics, and Earth and Space Science with the emphasis that science is a process, not just learned facts and memorization. The first half (MP1 & MP2) of this course will focus on Physics, the third quarter (MP3) will focus on Earth Science, and the fourth quarter (MP4) will focus on Space Science. This course includes a once-a-week lab period in which students will continue to apply learned knowledge to laboratory experimentation and real-life applications.

### **BIOLOGY CP**

**Grade Level 10**

**5 Credits**

**Prerequisite: Successful Completion of Physical Science**

This course is devoted to the study of living things and their processes. Throughout the year this course provides an opportunity for students to develop scientific process skills, laboratory techniques, and an understanding of the fundamental principles of living organisms. Students will explore biological science as a process of cell structure and function, genetics and heredity, evolution and classification, diversity of living organisms and their ecological roles, and an introduction to animal structure and function. An end of course test will be administered in June, which covers objectives for both semesters.

**BIOLOGY HONORS****Grade Level 10****5 Credits****Prerequisite: Successful Completion of Physical Science with a 91% or better in CP or 85% or better in Honors and Physical Science Teacher Recommendation**

This course is for students whom are interested in pursuing a career in the science field and have demonstrated the ability for in depth study. Students will also be required to write reports using scientific format. This course is devoted to the study of living things and their processes. Throughout the year this course provides an opportunity for students to develop scientific process skills, laboratory techniques, and an understanding of the fundamental principles of living organisms. Students will explore biological science as the process of cell structure, production and use of energy. An end of course test will be administered in June, which covers objectives for both semesters.

**CHEMISTRY CP****Grade Level 11****5 Credits****Prerequisite: Successful Completion of Biology**

This course introduces concepts and ideas of Chemistry. Students will learn about chemical terminology, chemical and physical properties, elements and compounds, chemical reactions, atomic structure, solution chemistry, chemical bonding, mass and energy relationships, and states of Matter. This is a laboratory course in which lab techniques (and some report writing skills), mathematical calculations, analysis of data and observations, and discussion of results are emphasized.

**CHEMISTRY HONORS****Grade Level 11****5 Credits****Prerequisite: Successful Completion of Physical Science and Biology with a 93% or better and Biology Teacher Recommendation**

This course is designed for students who plan to pursue a career in science or related fields. With study and hard work students can build a sound preparation for college chemistry or technical writing. This course introduces concepts and ideas of Chemistry. Students will learn about chemical terminology, chemical and physical properties, elements and compounds, chemical reactions, atomic structure, solution chemistry, chemical bonding, mass and energy relationships, and states of Matter. Extensive lab exercises are conducted to improve understanding of important concepts.

**AP CHEMISTRY****Grades 11, 12****5 Credits****Prerequisite: Successful completion of Honors Chemistry, Algebra I and Algebra II**

The AP Chemistry course is designed to be the equivalent of an introductory college course usually taken by science majors during their first year. The course will contribute to the development of the students' ability to express ideas with clarity and logic, both orally and in writing. Topics such as the structure of matter, kinetic theory of gases, chemical equilibrium, chemical kinetics, and the basic concepts of thermal dynamics will be presented in considerable depth. A great deal of time will be spent on chemical calculations, and mathematical formulations of principles of chemistry. The advanced work in chemistry should not displace any other part of the student's science curriculum. It is recommended that a student have a course in high school physics and a four- year college prep program in mathematics. Students are encouraged to take the AP exam. Summer work is required.

**PHYSICS CP****Grade Level 12****5 Credits****Prerequisite: Successful Completion of Biology, Chemistry, Geometry, Algebra II and Current Enrollment in Pre-Calculus**

This course is an algebra based science course that examines the relationship between matter and energy and how they interact. Extensive lab work and real-life applications will be stressed throughout the course. Special emphasis will be placed on the conceptual understanding of the underlying phenomena with mathematics layered overtop of the concepts. This course is designed to prepare students with the fundamentals necessary for freshman college physics as well as life as a professional in STEM fields (science, technology,

engineering and math). Topics covered include Newtonian Mechanics, Momentum, Energy, Thermodynamics, Waves and Sound, Light and Optics, Electricity, Atomic and Nuclear Science.

### **PHYSICS HONORS**

**Grade Level 12**

**5 Credits**

**Prerequisite: Successful Completion of Biology, Chemistry, Geometry and Algebra with a 93% or better, Current Enrollment in Pre-Calculus and Teacher Recommendation**

This course is an algebra based science course that examines the relationship between matter and energy and how they interact. Extensive lab work and real-life applications will be stressed throughout the course. Special emphasis will be placed on the conceptual understanding of the underlying phenomena with mathematics layered overtop of the concepts. This course is designed to prepare students with the fundamentals necessary for freshman college physics as well as life as a professional in STEM fields (science, technology, engineering and math). Topics covered include Newtonian Mechanics, Momentum, Energy, Thermodynamics, Waves and Sound, Light and Optics, Electricity, Atomic and Nuclear Science. The honors section of this course will provide a deeper look into the mathematics behind the science, including algebraic manipulation, graphical analysis and geometry.

### **ANATOMY AND PHYSIOLOGY**

**Grade Level 12**

**5 Credits**

**Prerequisite: Successful Completion of Physical Science, Biology and Chemistry**

This course intended for the serious, college bound science student. It is a study about the structures and functions of human living systems. It is a course designed for students interested in the field of medicine, dentistry, nursing, health, nutrition, teaching, etc. Specific areas of study will include: gross anatomy of the systems of the human body, histology, concepts of physiology, disease and related terminology.

## **PROJECT LEAD THE WAY- BIOMEDICAL**

Project Lead the Way is a four year sequential program of technical classes designed to expose students to the discipline of BioMedical courses while they learn to use state of the art equipment, tools and computer programs.

### **PRINCIPLES OF BIOMEDICAL SCIENCES    Grade Level 9, 10, 11, 12**

**5 Credits**

#### **Prerequisite: None**

This course is designed for students to investigate the human body systems and various health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. They determine the factors that led to the death of a fictional person, and investigate lifestyle choices and medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, medicine, research processes and bioinformatics. This course is designed to provide an overview of all the courses in the BioMedical Sciences program and lay the scientific foundation for subsequent courses.

### **HUMAN BODY SYSTEMS                            Grade Level 10, 11, 12**

**5 Credits**

#### **Prerequisite: Principles of Biomedical Sciences**

This course is designed for students to examine the interactions of body systems as they explore identity, communication, power, movement, protection and homeostasis. Students design experiments, investigate the structures and functions of the human body, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration. Exploring science in action, students build organs and tissues on a skeletal manikin, work through interesting real world cases and often play the role of biomedical professionals to solve medical mysteries.

### **MEDICAL INTERVENTIONS                    Grade Level 11, 12**

**5 Credits**

#### **Prerequisite: Human Body Systems**

This course is designed for students to investigate the variety of interventions involved in the prevention, diagnosis and treatment of disease as they follow the lives of fictitious family. The course is a "How-To" manual for maintaining overall health and homeostasis in the body as students explore: how to prevent and fight infection; how to screen and evaluate the code in human DNA; how to prevent, diagnose and treat cancer; and how to prevail when the organs of the body begin to fail. Through these scenarios, students are exposed to the wide range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. Lifestyle choices and preventive measures are emphasized throughout the course as well as the important roles scientific thinking and engineering design play in the development of interventions of the future.

### **BIOMEDICAL INNOVATION                    Grade Level 11, 12**

**5 Credits**

#### **Prerequisite: Medical Interventions and Algebra II**

This capstone course is designed for students to apply their knowledge and skills to answer questions or solve problems related to the biomedical sciences. Students design innovative solutions for the health challenges of the 21<sup>st</sup> century as they work through progressively challenging open-ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering, and public health. They have the opportunity to work on an independent project and may work with a mentor or advisor from a university, hospital, physician's office, or industry. Throughout the course, students are expected to present their work to an adult audience that may include representatives from the local business and healthcare community.

## SOCIAL STUDIES

The Social Studies Courses are designed to include the four disciplines of history, geography, civics and economics for the 21<sup>st</sup> Century Learner. Bound Brook High School students will be challenged to acquire a basic understanding and appreciation of World and American History to prepare them for college and career readiness.

*Graduation Requirements: Three Years of Social Studies*

**UNITED STATES HISTORY I CP**                      **Grade Level 9**                      **5 Credits**  
**Prerequisite: Successful Completion of 8<sup>th</sup> Grade World History**

This course is a survey of United States history from the American Revolution to the Gilded Age. Special emphasis will be placed on the economic and political development of the United States, American belief in Individual, Natural Rights and how groups were impacted by these developments. This course or the Honors course is required for all students. The instructional pace is rigorous and is designed to prepare students for United States History II. This course is for students of high academic ability, emphasizing concepts and trends, as well as facts. Challenging assignments are designed to develop writing and reading skills in preparation for college.

**UNITED STATES HISTORY I HONORS**                      **Grade Level 10**                      **5 Credits**  
**Prerequisite: Successful Completion of 8<sup>th</sup> Grade World History with a 91% or better in CP and 85% or better in CP, 8<sup>th</sup> Grade Teacher Recommendation**

This course is a survey of United States history from the American Revolution to the Gilded Age. Special emphasis will be placed on the economic and political development of the United States, American belief in Individual, Natural Rights and how groups were impacted by these developments. This course or the Honors course is required for all students. The instructional pace is rigorous and is designed to prepare students for United States History II. This course is for students of high academic ability, emphasizing concepts and trends, as well as facts. Challenging assignments are designed to develop writing and reading skills in preparation for college.

The honors program is designed for students who have demonstrated an interest and ability for in-depth study of American history. Students will be required to conduct independent research and inquiry.

**UNITED STATES HISTORY II CP**                      **Grade Level 10**                      **5 Credits**  
**Prerequisite: Successful Completion of US History I**

This course, which fulfills the state requirement for graduation, is a survey course in American History from 1900 to the present day. Units of study include World War I, the 1920s, Great Depression, World War II, Cold War, 1950s, Civil Rights Movement, the 1960s, the Vietnam War, 1970s, 1980s, 1990s and the 21<sup>st</sup> century.

**UNITED STATES HISTORY II HONORS**                      **Grade Level 10**                      **5 Credits**  
**Prerequisite: Successful Completion of US History I with an 91% or better in CP or 85% or better in Honors, US History I Teacher Recommendation and completion of summer assignment**

This course, which fulfills the state requirement for graduation, is a survey course in American History from 1900 to the present day. Units of study include World War I, the 1920s, Great Depression, World War II, Cold War, 1950s, Civil Rights Movement, the 1960s, the Vietnam War, 1970s, 1980s, 1990s and the 21<sup>st</sup> century.



The honors program is designed for students who have demonstrated an interest and ability for in-depth study of American history. Students will be required to conduct independent research and inquiry.

**AP UNITED STATES HISTORY      Grade Level: 10, 11, 12**

**5 Credits**

**Pre-requisites: Prior achievement in Honors Social Studies**

United States History, AP is an elective course offered to sophomores, juniors and seniors with superior academic ability and a genuine interest in history. This course will include independent study, extensive outside reading, research, writing, and seminar discussions as course requirements. Additionally, this course will offer students the opportunity to earn college credit and replace the US II requirement for sophomores. Enrollment in 10<sup>th</sup>, 11<sup>th</sup>, or 12<sup>th</sup> grade English Honors or AP is also strongly advised because of the rigorous nature of the course and the need for superior reading comprehension. All students will be encouraged to take the AP exam in May.

**\*Students in Grade 10 may select AP US History to replace their Honors US History II requirement for graduation. This course may also be taken as an elective in grades 11-12.**

**MODERN WORLD HISTORY CP**

**Grade Level 11**

**Prerequisite: Successful completion of US History I and US History II.**

**5 Credits**

This is a full-year course, which fulfills the state requirement for graduation. This is a survey course in World History from 1900-Present. Units of study include the Rise of International Business, The World Wars, Collapse of Empires & the Cold War, Communism in Asia, Israel & the Middle East, Latin America & Cuba, the Vietnam War, Civil Rights & Self Determination, Arab Oil Crisis & the Petro Dollar, The Collapse of the Soviet Union, Pax Americana, The Global Financial System & the Great Recession, and the Media & the Information Revolution.

**MODERN WORLD HISTORY HONORS**

**Grade Level 11**

**5 Credits**

**Prerequisite: Successful Completion of US History II with an 91% or better in CP or 85% or better in Honors, US History II Teacher Recommendation and completion of summer assignment**

This is a full-year course, which fulfills the state requirement for graduation. This is a survey course in World History from 1900-Present. Units of study include the Rise of International Business, The World Wars, Collapse of Empires & the Cold War, Communism in Asia, Israel & the Middle East, Latin America & Cuba, the Vietnam War, Civil Rights & Self Determination, Arab Oil Crisis & the Petro Dollar, The Collapse of the Soviet Union, Pax Americana, The Global Financial System & the Great Recession, and the Media & the Information Revolution.

**HISTORY ELECTIVES**

*These courses do not fulfill the Social Studies requirements for graduation.*

**HOLOCAUST AND GENOCIDE**

**Grade Level 11, 12**

**5 Credits**

**Prerequisite: Successful Completion of World History and US History and Recommended completion of US History II**

This course will focus on an in-depth analysis of Genocide using the Holocaust as a foundation. The course is designed to get students to question themselves as to what their role has been and will be as human rights violations occur throughout the world. Students will identify roles as well as look at the stages of genocide and analyze the seeds of hatred that began as racism and bigotry and eventually grew into the murder of men, women, and children. Specifically, students will look at the history of anti-Semitism and its role in the emergence of the Holocaust, and we will also look at genocidal case studies in Armenia, Cambodia, Bosnia, Rwanda, and Darfur. At the end of the course, each student will develop a plan, which will define what their role will be to prevent genocide, hatred, and racism.

## TECHNOLOGY AND INDUSTRIAL ARTS

The Technology and Industrial Arts Courses are a designed comprehensive education for students, developing skills for the 21<sup>st</sup> Century Learner. Bound Brook High School students will be able to experience hands-on opportunities to develop skills and achieve success for college and career readiness.

*Graduation Requirements: One course of 21<sup>st</sup> Century Career/Technology*

### **ARCHITECTURAL DRAFTING AND DESIGN      Grade Level 10, 11, 12      5 Credits** **Prerequisite: Successful Completion of Machine Drafting I or Introduction to Engineering Design**

This course is the study of the design and construction of residential and commercial building projects. The full year course includes an introduction to many of the varied factors involved in building and site design and construction including building components and systems, structural design, storm water management, site design, utilities and services, cost estimation, energy efficiency, and careers in the design and construction industry. The major focus of the course is to expose students to the design and construction practices of residential and commercial building projects, design teams and teamwork, communication methods, building codes and ordinances, engineering design calculations, and technical documentation. Problem solving skills and design experience are gained through an activity-project-problem-based teaching and learning pedagogy. Used in combination with a teaming approach, project based learning challenges students to continually hone their interpersonal skills and creative abilities while applying math, science, and technology knowledge learned in other courses to solve design problems and communicate their solutions. Students will use industry standard 3D architectural modeling software to facilitate site and building design and technical documentation. As the course progresses and the complexity of the design problems increase, students will learn more advanced computer modeling skills as they become more independent in their learning, more professional in their collaboration and communication, and more experienced in problem solving and design.

## PROJECT LEAD THE WAY- ENGINEERING

Project Lead the Way is a four year sequential program of technical classes designed to expose students to the discipline of engineering and engineering technology courses while they learn to use state of the art equipment, tools and computer programs.

### **INTRODUCTION TO ENGINEERING DESIGN      Grade Level 9, 10, 11, 12      5 Credits** **Prerequisite: None**

This is a course that is appropriate for 9th or 10th grade students who are interested in design and engineering or another technical career. The major focus of the course is to expose students to the design process, professional communication and collaboration methods, design ethics, and technical documentation. The full year course gives students the opportunity to develop skills in research and analysis, teamwork, technical writing, engineering graphics, and problem solving through activity-, project-, and problem-based learning. Used in combination with a teaming approach, students to continually hone their interpersonal skills and creative abilities while applying math, science, and technology knowledge learned in other courses to solve engineering design problems and communicate their solutions. Students will use industry standard 3D solid modeling software to facilitate the design and documentation of their solutions to design problems and challenges, and will create physical projects.

**PRINCIPLES OF ENGINEERING****Grade Level 10, 11, 12****5 Credits****Prerequisite: Introduction to Engineering Design**

This course exposes students to some of the major concepts that they will encounter in a postsecondary engineering course of study. Students have an opportunity to investigate engineering and high tech careers. The course gives students the opportunity to develop skills and understanding of course concepts through activity-, project-, and problem-based learning through Autodesk Inventor-Mechanical Design & AutoCAD. Used in combination with a teaming approach, real world problems challenge students to continually hone their interpersonal skills, creative abilities, and problem solving skills based upon engineering concepts. It also allows students to develop strategies to enable and direct their own learning, which is the ultimate goal of education. The class will cover mechanics, energy, fluids, statics, materials, statistics and kinematics.

**DIGITAL ELECTRONICS****Grade Level 11, 12****5 Credits****Prerequisite: Principles of Engineering**

This course is the study of electronic circuits that are used to process and control digital signals. In contrast to analog electronics, where information is represented by a continuously varying voltage, digital signals are represented by two discrete voltages or logic levels. This distinction allows for greater signal speed and storage capabilities and has revolutionized the world electronics. Digital electronics is the foundation of all modern electronic devices such as cellular phones, MP3 players, laptop computers, digital cameras, high definition televisions, etc. The major focus of this full year course is to expose students to the design process of combinational and sequential logic design, teamwork, communication methods, engineering standards, and technical documentation. Utilizing the activity-project-problem-based teaching and learning pedagogy, students will analyze, design and build digital electronic circuits. While implementing these designs students will continually hone their interpersonal skills, creative abilities and understanding of the design process. Students will work in teams to design and construct physical solutions to real world problems using software such as Autodesk Inventor-Mechanical Design & AutoCAD.

**COMPUTER INTEGRATED MANUFACTURING****Grade Level 11, 12****5 Credits****Prerequisite: Successful Completion of Principles of Engineering and Algebra II**

This course is the study of manufacturing planning, integration, and implementation of automation. The yearlong course explores manufacturing history, individual processes, systems, and careers. In addition to technical concepts, the course incorporates finance, ethics, and engineering design. This reflects an integrated approach that leading manufacturers have adopted to improve safety, quality, and efficiency. Utilizing the activity-project-problem-based teaching and learning pedagogy, students will analyze, design, and build manufacturing systems. While implementing these designs, students will continually hone their interpersonal skills, creative abilities, and understanding of the design process. Students apply knowledge gained throughout the course in a final open-ended problem to build a factory system.

**VISUAL ARTS**

The Visual Arts Courses are designed allow the 21<sup>st</sup> Century Learner to pursue their creative interests. Bound Brook High School students will be challenged to develop higher level thinking skills, creativity and problem solving while encouraging their self- expression and experimentation to prepare them for college and career readiness.

*Graduation Requirements: One Course in Performing or Visual Arts*

**ART I** **Grade Level 9, 10, 11, 12** **5 Credits**  
**Prerequisite: None**

This course is designed to introduce beginning art students to the fundamentals of art: the concepts and ways of creative problem solving used in the actual process of making art, and the essential skills and techniques needed to produce various art forms. Throughout this course, various masterpieces of art will be viewed, analyzed and discussed to acquaint students with a variety of exemplary works from other cultures and time periods. Students will be introduced to the elements of art through exploring a variety of art media. The elements of art serve as a foundation for each unit in this course. These terms are taught as visual vocabulary for students to use when planning, discussing, writing about, analyzing, and describing their artwork along with other artists. In addition to gaining confidence and proficiency working with a variety of mediums, students will learn about the history, analysis, and interpretation of art.

The goals and purposes of this course are to stimulate creative abilities, critical thinking and problem solving strategies, cultural appreciation, social and individual development, personal growth, and appreciation of the visual arts through actual art making: to provide the beginning art student with basic instruction in the elements of art as a foundation for continued development as an artist.

**ART II** **Grade Level 10, 11, 12** **5 Credits**  
**Prerequisite: Successful Completion of Art I**

This course is designed for students who wish to pursue art as a career or enjoy art as a hobby. Students will further develop an understanding of the elements and principles of design through exploring a variety of art media while being encouraged to take chances and experiment with different kinds of media. Throughout this course, students will study artists from the past and present who have worked in a variety of ways. Students will then combine knowledge of art history with artistic practice. Students will hone their critiquing skills and express aesthetic judgments in oral and written formats. In addition to gaining confidence and proficiency working with a variety of mediums, students will learn about the history, analysis, and interpretation of art.

The goals and purposes of this course are to further prepare students interested in pursuing art as a career by developing an understanding of the principles of design and critique methodologies. Goals and purposes also include stimulating creative problem solving, social and individual development, personal growth, and a deeper understanding of how art can be a useful tool to impact the world.

**ART III** **Grade Level 11, 12** **5 Credits**  
**Prerequisite: Successful Completion of Art II**

This course is designed to challenge the students by assigning them two and three-dimensional projects that require the student to build upon the basic skills learned in Art II and I. The student will be encouraged to be experimental with the various media to create highly original art. The four disciplines of art, including studio art, art criticism, art history, and aesthetics will be taught. The pupil will be encouraged to display his/her art in local art shows. Homework drawing assignments will be assigned frequently. Evaluation is based upon creativity, neatness, total presentation, and testing.

**ART IV** **Grade Level 12** **5 Credits**

**Prerequisite: Successful Completion of Art III**

This course is designed for students who have plans on enrolling in post secondary art instruction or seeking a career in an artistic field after high school. Students who take art four will focus on building a portfolio of their work. The Art IV student will be assigned challenging two and three-dimensional projects that require the student to build upon the basic skills learned in Art III, II and I. The student will be encouraged to be experimental with the various media to create highly original art. The four disciplines of art, including studio art, art criticism, art history, and aesthetics will be taught. The pupil will be encouraged to display his/her art in local art shows. Homework drawing assignments will be assigned frequently. Evaluation is based upon creativity, neatness, total presentation, and testing.

**DIGITAL PHOTOGRAPHY**

**Grade Level 9, 10, 11, 12**

**5 Credits**

**Prerequisite: None**

This course is a semester course. Students will be introduced to basic photography techniques and learn photo specific terms that will enable them to produce, understand, and assess photographs. Students will be encouraged to see photography as an art form. Through the use of digital manipulations (use of Photoshop) students will use their photos to create various art projects that bring photography from the average photograph to an art form

**CRAFTS**

**Grade Level 9, 10, 11, 12**

**5 Credits**

**Prerequisite: None**

This course is designed for all students, including those who feel that they cannot draw well but enjoy working with their hands. A history of the crafts from various countries and cultures will also be taught in conjunction with the Craft being produced in class. Ceramics, bookmaking, fiber arts, and textiles are some but not all of the projects students who take Crafts can expect to be creating.

The World Language Courses are designed help the 21<sup>st</sup> Century Learner converse, understand and interpret spoken and written language in addition to comparing the different language and cultures to their own. Bound Brook High School students will be challenged to present information, concepts and ideas in a language other than English to prepare them for college and career readiness.

*Graduation Requirements: One course of a World Language*

*\*Two to Three Courses of a World Language are a requirement for some Four Year College\**

## **FRENCH**

### **FRENCH I CP**

**Grade Level 9, 10, 11, 12**

**5 Credits**

**Prerequisite: None**

This course is an introduction to the French language. We will work to develop you listening, speaking, reading and writing skills in French. You will make your first steps towards communicating in French, as well as learn about the cultures of many places in the French-speaking world.

Topics discussed will include greetings, numbers to 1000, telling time, weather, the calendar, friends and family, the home and common objects, foods and beverages, ordering at a café, common activities, opinions, buildings in a city, sports and games, French cities, French-speaking countries of the world, and school in France.

### **FRENCH II CP**

**Grade Level 10, 11, 12**

**5 Credits**

**Prerequisite: Successful Completion of French I**

This course is designed as a continuing introduction to the French language. We will continue to enhance you listening, speaking, reading and writing skills in French. You will work towards communicating better in French, as well as continue to learn about the cultures of many places in the French-speaking world.

Topics discussed will include buildings in a city, giving directions, family members, clothing and accessories, shopping, weekend activities, individual summer and winter sports, chores, transportation, means of transportation, the future, the past, food and beverages.

### **FRENCH III CP**

**Grade Level 11, 12**

**5 Credits**

**Prerequisite: Successful Completion of French II**

This course begins with a brief review of some of the topics discussed in the two previous courses. In this course students are expected to communicate in the target language using the interpretational, interpersonal, and presentational modes. Most of the themes from French I and II are revisited and expanded upon.

Topics discussed will include who students are, family, professions, leisure activities, entertainment, meals, the past tense, and the future tense.

### **FRENCH IV**

**Grade Level 12**

**5 Credits**

**Prerequisite: Successful Completion of French III**

This course is considered to be the stepping-stone to the AP program. The themes introduced in this course mirror those included in the AP exam. Students are expected to communicate solely in the target language using the three modalities (interpretive, interpersonal, presentational). An emphasis on literature and culture is a major component of this course.

Topics discussed include Sports, health, daily routine, taking care of oneself, the home, your city, clothing, shopping, traveling, the past tens, the future tense, the conditional and subjunctive moods.

## SPANISH

**SPANISH I CP** **Grade Level 9, 10, 11, 12** **5 Credits**

**Prerequisite: None**

This course introduces students to the language and cultures of the Spanish-speaking world through the use of audio, video and communicative activities, and various online and technology resources. In Spanish I, students communicate orally and in writing about topics such as self, school, food, family, clothing, and the house. Students will learn basic grammar points, including the gender of nouns, noun-adjective agreement, and the present tense of regular and some irregular verbs. Students will explore the Spanish-speaking world, focusing on the geography of Spanish-speaking countries

**SPANISH II CP** **Grade Level 10, 11, 12** **5 Credits**

**Prerequisite: Successful Completion of Spanish I**

This course is designed for students to build on the vocabulary and grammar skills acquired in Spanish I. Through the use of audio, video and communicative activities, and various online and technology resources, students begin to tell, write, and understand longer, more descriptive stories and dialogues about self and community. Students will learn more complex grammar, such as commands, reflexive verbs, and the past tense. Culture is embedded in each unit, with emphasis placed on daily life, events, holidays, and traditions that exist in Spanish-speaking countries.

**SPANISH III CP** **Grade Level 11, 12** **5 Credits**

**Prerequisite: Successful Completion of Spanish II with a 70% or better and Teacher Recommendation**

**Spanish III Course Description:**

This course is designed for students to build on the vocabulary and grammar skills acquired in Spanish I and II. Through the use of audio, video and communicative activities, and various online and technology resources, students will learn vocabulary to discuss art, leisure activities, jobs and careers, and history of Spain and Latin America. Grammar topics include the present perfect and the subjunctive. Students will begin to analyze and synthesize information in the target language to create presentations, hold conversations, and write essays.

**SPANISH IV CP** **Grade Level 12** **5 Credits**

**Prerequisite: Successful Completion of Spanish III with a 70% or better and Teacher Recommendation**

This course is designed for students to engage in presentational and interpersonal communication surrounding the following themes: Global Challenges, Beauty and Aesthetics, Personal and Public Identities, Family and Community, Contemporary Life, and Science and Technology. Students will analyze and synthesize information in the target languages from a variety of authentic sources (newspapers, news reports, documentaries, magazines, etc.) to create presentations, hold conversations, and write essays. Students will be responsible for a large portion of work to be done independently at home. Evaluation is based largely on class participation in discussions, debates, lectures, etc. in addition to tests, projects, and homework.

**SPANISH LANGUAGE AP** **Grade Level 12** **5 Credits**

**Prerequisite: Successful Completion of Spanish III with a 70% or better and Teacher Recommendation**

This course is designed to prepare students to take the AP Spanish Language and Culture Exam. Students will engage in presentational and interpersonal communication surrounding the six themes that appear on the AP Exam: Global Challenges, Beauty and Aesthetics, Personal and Public Identities, Family and Community, Contemporary Life, and Science and Technology. Students will analyze and synthesize information in the target languages from a variety of authentic sources (newspapers, news reports, documentaries, magazines, etc.) to create presentations, hold conversations, and write essays. Students will be responsible for a large portion of work to be done independently at home.

**MANDARIN CHINESE I and II** **Grade 9-12** **5 Credits**

**Prerequisite: No prerequisite**

Mandarin Chinese is an entry-level course in Mandarin Chinese language acquisition appropriate for students with little or no prior knowledge of the Mandarin Chinese language. It is designed to develop listening, speaking, reading, and writing skills. The main objectives include developing students' linguistic proficiency, promoting cultural sensitivity, and developing their overall fluency. The Mandarin Chinese course is designed to develop the five skills of listening, speaking, reading, writing and cultural understanding. The focus of the course is balanced between communicative content and language structure/forms, based on the National Standards for Foreign Language Education and aligned to NJ Core Curriculum Content Standards for World Language.



Bound Brook High School offers a virtual learning program that allows students to earn credit through **APEX Learning** as our online course provider, while being monitored and assisted by staff, as well as working independently. Instructional outcomes, learning activities, materials, resources, and assessments in our **APEX Learning** courses are in complete alignment to the 2009 Standards and the Common Core Curriculum standards, and are adapted to plan for authentic student learning.

**APEX Learning** courses enable us to cultivate 21st Century Learning Skills, by actively building on previous knowledge and prerequisite skills as students progress through the coursework. Essentially, through active participation in the learning process, our **APEX Learning** course enable students to initiate curiosity, take ownership of the activities, while conveying through their actions that they value the courses.

### **AVID PROGRAM**

**AVID**, Advancement Via Individual Determination is a global nonprofit organization dedicated to closing the achievement gap by preparing all students for college and other postsecondary opportunities. The **AVID** program brings best practices and proven methodologies to students in high school. **AVID**'s goal is to prepare all students in a school for college, starting with the core elective class and expanding school wide.

The **AVID** Elective class targets students in the academic middle, who have the desire to go to college and are capable of completing rigorous curriculum using the will to work hard. In the **AVID** Elective, students are routinely required to enroll in their school's toughest courses, such as honors or Advanced Placement<sup>®</sup>.

#### **AVID Goals:**

- Teaches skills and behaviors for academic success
- Provides intensive support with tutorials and strong student/teacher relationships
- Creates a positive peer group for students
- Develops a sense of hope for personal achievement gained through hard work and determination

As a result, **AVID**'s mission is to be an essential strategy for closing the achievement gap, making college access and success available to all students.

**\*\*\*\*\*AVID is a voluntary program, which will only be open to 9<sup>th</sup> grade students during the 2017-2018 school year.\*\*\*\*\***

## SCHEDULE CHANGES

During the first two weeks of the new school year, students who have errors on their schedules or who have incorrect classes should complete a “Schedule Change Request” form in their homeroom period indicating the need for a change. The homeroom teachers will collect the request forms and submit them to the Guidance Office. The students’ guidance counselor will then send him/her a pass to meet.

**Additionally, during the first two weeks of the new school year, students are not to go to the Guidance Office to make schedule changes without a pass from his/her Guidance Counselor. All students will be sent back to class until the guidance counselor issues a pass.**

Students entering the guidance office must sign in and sign out with the Guidance Secretary. The counselor or office staff will initial the log.

### **Class and/or Course Level Changes:**

- Level changes should be made in consultation with counselor, teacher, and parents/ guardians. Level changes from one level course to another must be made only after consultation with the counselor.
- Changes to a higher level must be made within 15 days from the beginning of the course.
- The deadline for level changes down is 30 school days after the start of the course.
- There must be an open seat in the requested course in order for the change to be initiated. Maintaining acceptable class size is a priority.
- In addition, the student is responsible for missed work. Grades follow the student when he/she makes a level change, with due consideration given to the weight of that grade.

\*Due to the complexity of the schedule, it is difficult to accommodate schedule changes. Therefore, students should have made careful and thoughtful decisions when choosing all courses, including electives. We are unable to accommodate requests for schedule changes related to teacher, period, or convenience/preferential changes.

### **Schedule changes will be considered only for the following reasons:**

- The correction of a clerical error in the schedule (i.e., a missing course, a conflict between two or more courses, or not having the appropriate prerequisite).
- A recommendation from the Child Study Team.
- A recommendation from a building administrator for disciplinary, attendance, or instruction reasons.
- A student is repeating a course with the same teacher he/she previously had.
- A recommendation from a teacher for a level change.

### **Schedule changes will not be considered only for the following reasons:**

- Course content or standards differing from student expectations.
- Dropping a course because it is not needed for graduation.
- Inability of a student

# BOUND BROOK HIGH SCHOOL

## Schedule Change Request Form

Student Name: \_\_\_\_\_ Grade: \_\_\_\_\_ Date: \_\_\_\_\_

Counselor: Mr. Appezzato  Ms. Nelson  Mr. Ryan-Hannaway

<b>Name of the Course you wish to Drop:</b>	<b>Name of the Course you would like to Add:</b>
<b>Reason for Dropping this Course:</b>	<b>Reason for Adding this Course:</b>
<b>Teacher Signature of Course Dropped</b>	<b>Teacher Signature of Course Added</b>

Please complete the following schedule change form, sign it, have your parent/guardian sign it and return this form to the Guidance Secretary. Your Guidance Counselor will review your request and schedule a time to meet with you. Until you are called down to meet with your counselor, you are expected to follow the schedule you were given and go to every class on your schedule.

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Parent Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Principal's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Head of Guidance Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## New Jersey\* Graduation Requirements by Content Area and Grade 9 Class

<b>Course and Credit requirements for all students entering grade 9 in:</b>						
	<b>2008-2009</b>	<b>2009-2010</b>	<b>2010-2011</b>	<b>2011-2012</b>	<b>2012-2013</b>	<b>2013-2014</b>
<b>Language Arts Literacy</b>	20 credits	20 credits aligned to grade nine through twelve standards				
<b>Mathematics</b>	15 credits including algebra I or the content equivalent**	15 credits including algebra I and geometry or the content equivalent**		15 credits including algebra I and geometry or the content equivalent* and a third year of math that builds on the concepts and skills of algebra and geometry and prepares students for college and 21 <sup>st</sup> century careers		
<b>Science</b>	15 credits including at least five credits in laboratory biology/life science or the content equivalent**	15 credits including at least five credits in laboratory biology/life science or the content equivalent** and one additional laboratory/inquiry-based science course which shall include chemistry, environmental science, or physics		15 credits including at least five credits in laboratory biology/life science or the content equivalent**; an additional laboratory/inquiry-based science course including chemistry, environmental science, or physics; and a third laboratory/inquiry-based science course		
<b>Social Studies</b>	15 credits including satisfaction of N.J.S.A.18A:35 - 1 and 2	15 credits including satisfaction of N.J.S.A.18A:35- 1 and 2; five credits in world history; and the integration of civics, economics, geography and global content in all course offerings				
<b>Financial, Economic Business, and Entrepreneurial Literacy</b>	No State Requirement		2.5 credits			
<b>Health, Safety, and Physical Education</b>	3 ¾ credits in health, safety, and physical education during each year of enrollment, distributed as 150 minutes per week, as required by N.J.S.A.18A:35-5, 7 and 8					
<b>Visual and Performing Arts</b>	5 credits					
<b>Technological Literacy</b>	Consistent with the Core Curriculum Content Standards, integrated throughout the curriculum					
<b>21<sup>st</sup> Century Life and Careers, or Career-Technical Education</b>	5 Credits					
<b>Total Credits (State Minimum)</b>	110	120***				

\*School districts may establish course and/or credit requirements which exceed the State minimums.

\*\*“Content Equivalent” means courses or activities that include the same or equivalent knowledge and skills as those found in traditionally titles courses which are required for high school graduation and which are aligned with the Core Curriculum Content Standards. This content must be taught by certified teachers, may be integrated in one or more courses, may be titles differently, or may present material in an interdisciplinary or spiral format.

\*\*\*The 120 credit total is greater than the sum of the individual requirements above, to all for student electives.

## BOUND BROOK HIGH SCHOOL

### Individual Student Academic Chart

Students must successfully earn a total of **120 CREDITS** for high school graduation. Of the 120 credits, 102.5 Credits are prescribed (requirements) according to New Jersey and Bound Brook School District Policy.

This chart can be used as guidance throughout your high school career to keep track of the courses you have taken towards graduation. The required courses according to New Jersey and Bound Brook School District's Policy have already been filled in.

Example:

Course Title	Year	Teacher	Credits	Final Grade
<i>English I CP</i>	<i>9<sup>th</sup></i>	<i>Mr. Smith</i>	<i>5</i>	<i>87.3</i>

#### 4-Year Requirement Courses

##### *English*

Course Title	Year	Teacher	Credits	Final Grade
English I			5	
English II			5	
English III			5	
English IV			5	

##### *Physical Education*

Course Title	Year	Teacher	Credits	Final Grade
Physical Education 9			3.75	
Physical Education 10			3.75	
Physical Education 11			3.75	
Physical Education 12			3.75	

##### *Health Education*

Course Title	Year	Teacher	Credits	Final Grade
Health 9-Drug, Alcohol and Reproduction Education			1.25	
Health 10-Driver's Education			1.25	
Health 11-First Aid and Cardiopulmonary Resuscitation			1.25	
Health 12-Relationships and Healthy Living			1.25	

#### Three-Year Requirement Courses

##### *Mathematics*

Course Title	Year	Teacher	Credits	Final Grade
Algebra I			5	
Algebra II			5	
Geometry				

##### *Science*

Course Title	Year	Teacher	Credits	Final Grade
Physical Science			5	
Biology				
Chemistry				

**Three-Year Requirement Courses Continued**  
*Social Studies*

<b>Course Title</b>	<b>Year</b>	<b>Teacher</b>	<b>Credits</b>	<b>Final Grade</b>
US History I			5	
US History II				
World History				

**One-Year Requirement Courses**  
*21<sup>st</sup> Century Career or Technology*

<b>Course Title</b>	<b>Year</b>	<b>Teacher</b>	<b>Credits</b>	<b>Final Grade</b>

*Visual or Performing Arts*

<b>Course Title</b>	<b>Year</b>	<b>Teacher</b>	<b>Credits</b>	<b>Final Grade</b>

*World Language*

<b>Course Title</b>	<b>Year</b>	<b>Teacher</b>	<b>Credits</b>	<b>Final Grade</b>

*Financial Literacy*

<b>Course Title</b>	<b>Year</b>	<b>Teacher</b>	<b>Credits</b>	<b>Final Grade</b>
Financial Literacy			2.5	

The remaining course credits (17.5 credits) should be chosen to give the student a well-rounded program that will help them to become a better person and citizen, and prepare them for college and career readiness.

*Elective Courses*

<b>Course Title</b>	<b>Year</b>	<b>Teacher</b>	<b>Credits</b>	<b>Final Grade</b>