Course registration for in-district students will open on February 16th. Students will enroll via the Community Pass website. Enrollment for Out of District students will open on March 1. Out of District students must download a paper application and mail it to South Brunswick high school with a check for course fees.

**NOTE:** Due to the impact of COVID 19, Summer Institute classes may take place virtually. A final decision as to the format of the program (in class or remote) will be made towards the end of the school year.

Visit the SBHS Summer Institute webpage often for program updates.

### Courses for Advancement - These courses earn credit for SBHS students

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Grade Levels</th>
<th>Fee</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Advanced Biology I (5 Credits)</strong></td>
<td>10, 11</td>
<td>$1000</td>
<td>Mon-Fri June 28 - August 6, 7:15-12:00</td>
</tr>
<tr>
<td>COURSE CLOSED</td>
<td></td>
<td>$1100</td>
<td>Out of District</td>
</tr>
<tr>
<td>Advanced Biology I is designed to introduce students to Life Science. Students in Advanced Biology I will carry out experiments, learn concepts, and use a variety of strategies to learn about ecology, biochemistry, classification, cells, reproduction, genetics, evolution, botany, and a survey of living things. Emphasis will be on higher level thinking skills, writing assignments, oral reports and projects.</td>
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<tr>
<td><strong>Advanced Chemistry I (5 Credits)</strong></td>
<td>9, 10, 11</td>
<td>$1000</td>
<td>Mon-Fri June 28 - August 6, 7:15-12:00</td>
</tr>
<tr>
<td>COURSE CLOSED</td>
<td></td>
<td>$1100</td>
<td>Out of District</td>
</tr>
<tr>
<td>This course emphasizes content and theory. It is designed for students planning careers related to science. The main topics included are: measurement, modern atomic theory, the mole concept, formulas and equations, chemical calculations, acids and bases, chemical bonding, periodic properties, equilibrium, oxidation, reduction.</td>
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<tr>
<td><strong>Prerequisite:</strong></td>
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<tr>
<td>1) 95% in English I, or 95% English II, or 90% in English I/Academic I, or 90% in English Academic II, or 83% in Honors English I or 83% in Hon. English II, or 83% in Chemistry or 77% in Hon. Chemistry</td>
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<tr>
<td>2) 90% in PES or 83% in Chemistry or 77% in Hon. Chemistry</td>
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<tr>
<td><strong>Note:</strong> Space is limited so register early. In addition, students cannot be placed in AP-level science for the 2021-2022 school year. They will qualify for 2022-2023 if they meet all pre-requisites.</td>
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</tbody>
</table>
### Advanced Geometry (5 Credits)
This course is designed to help students develop an understanding of geometric concepts and an ability to apply them in a variety of situations. Topics will include properties of angles and segments, parallel lines, triangles, quadrilaterals, polygons, and circles. Students will be able to use these properties to solve problems involving congruence and similarity, right triangles, area and volume, and coordinate geometry. This course enables students to accelerate in mathematics and prepare students for Advanced Algebra II.

**Prerequisite:** Algebra I with a grade of 93% or better for T1 and T2 and going into 9th for the 2021-22 school year.

**Please Note:** To facilitate the review of course prerequisites, registration for the Advanced Geometry course will open after the end of the middle school trimester 2 (March 16, 2021).

**Note:** Space is limited so register early. To be considered for advancement, the student must achieve an 85% or better as a final grade. Completion of the summer course in Advanced Geometry will not qualify students for AP-level science courses.

### Intro to Web Design (2.5 credits)
With technology jobs on the rise, coding skills will be in high demand. Intro to Web Design introduces students to the basics of coding through the essential languages for web design, which includes HTML, CSS, Bootstrap, and jQuery. Students will be able to create and host web pages using the same tools professionals using including Sublime and GitHub. By the end of the course students will be able to build a full website with a navigation bar, a footer bar, a home page, and article pages. This is a great course to open the door to the world of computer languages and web development.

**Note:** Space is limited so register early. This is a hybrid in-class and online course. In class lessons will meet on Mondays, Wednesdays and Fridays. *

### Organic Chemistry (5 Credits)
Organic Chemistry is designed for students who wish to pursue a career in medicine, pharmacy, or chemistry. It is open to any student who has completed Chemistry I. It allows students to study and practice the topics and lab techniques of what many consider to be one of college’s most difficult courses. Although the course is taught using pedagogy and pacing suited to a high school, the scope of the course includes fifteen lab projects and is comparable to a typical college semester of Organic Chemistry.

**Prerequisite:** Chemistry I

**Note:** Space is limited so register early.

### Personal Financial Management Session I (2.5 Credits) offered during session I
This course is designed to inform students how personal finance directly correlates to their future success. Students will be exposed to the following topics: income and careers, money management, credit and debt management, planning, saving, and investing, becoming a critical consumer, and risk management and insurance. Students will learn how to set and prioritize financial goals, develop spending plans, obtain financial security, distinguish between wealth and income, and calculate the time value of money. This course will empower students to make informed financial decisions and recognize outcomes that promote financial independence.

**Note:** This course is offered during Session I: 6/28 – 7/16. Space is limited so register early.

### Personal Financial Management Session II (2.5 Credits) offered during session II
This course is designed to inform students how personal finance directly correlates to their future success. Students will be exposed to the following topics: income and careers, money management, credit and debt management, planning, saving, and investing, becoming a critical consumer, and risk management and insurance. Students will learn how to set and prioritize financial goals, develop spending plans, obtain financial security, distinguish between wealth and income, and calculate the time value of money. This course will empower students to make informed financial decisions and recognize outcomes that promote financial independence.

**Note:** This course is offered during Session II: 7/19 – August 6. Space is limited so register early.
becoming a critical consumer, and risk management and insurance. Students will learn how to set and prioritize financial goals, develop spending plans, obtain financial security, distinguish between wealth and income, and calculate the time value of money. This course will empower students to make informed financial decisions and recognize outcomes that promote financial independence.

**Note:** This course is offered during **Session II: 7/19 – 8/6.** Space is limited so register early.

### Online Personal Financial Management (2.5 Credits)
This course is designed to inform students how personal finance directly correlates to their future success. Students will be exposed to the following topics: income and careers, money management, credit and debt management, planning, saving, and investing, becoming a critical consumer, and risk management and insurance. Students will learn how to set and prioritize financial goals, develop spending plans, obtain financial security, distinguish between wealth and income, and calculate the time value of money. This course will empower students to make informed financial decisions and recognize outcomes that promote financial independence.

**Note:** Space is limited so register early. This course will be filled on a “first come, first served” basis. Students are required to attend an orientation meeting after school in June.

This course is designed to inform students how personal finance directly correlates to their future success. PFMO will run from June 28th to July 23rd. There will be an expected amount of 3 hours a day of work for this course with 2 required hours of synchronous zoom sessions (1 Monday & 1 Wednesday between 9am - 1pm). Student are required to log into the zoom session for an hour during the assigned time given by their instructor. The teachers of the online course will contact their class via their sbstudent accounts to give the class zoom link, designated hour of instruction for their Monday/Wednesday sessions and a syllabus. A mandatory zoom orientation session will take place on Thursday, June 17th at 3pm. Again, links and reminders will be emailed to students, by their summer instructors.

<table>
<thead>
<tr>
<th>Courses for Enrichment</th>
<th>Grade Levels</th>
<th>SDHS Only</th>
<th>In district only</th>
</tr>
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</table>
| **College Academy (non-credit course)** Each September high school seniors begin the process of submitting college applications. This academy is designed for 12th graders who want an early start to the college application process. This academy will provide seniors with that early start to the college application process. Initially participants will be provided the opportunity to create a well-balanced list of colleges and universities. The full Common Application with updated essay prompts is made available to students each year on August 1st, which allow participants the opportunity to complete a major portion of this college application. We ask that you do not set up an account until the workshop begins in order to ensure consistency with this process.

This application is one that is utilized by over 700 institutions nationally. A portion of the academy will also focus on the initial development of the college essay. Early admission options, interview process and the development of a resume will also be covered. Participants will also become more familiar with the Naviance program as it relates to the college application process.

| College Essay Seminar (Non-credit course) 3 Week Online Hybrid Course The college essay is one of the only areas in the college essay that students are able to present themselves as individuals, and not just as a compilation of test scores, activities, and grades, mirroring most other students in the application pool. This makes the college essay an integral part of the student’s application.

Students will view and consider exemplars and model essays, learn and understand what college admissions officers expect, and write several essays on a variety of common application topics, including the short responses and supplemental essays that most | 12th grade | $260 | In district only |
| | | Online course | June 28 to July 16 | Optional in-person conferences available each week. |
competitive colleges also require.

Students will receive guidance and continuous feedback from the teacher through the online format throughout the writing process. Students will also have the option to meet in-person once a week for conferencing. Essay topics will be those used on previous college applications, the common application, and specific topics students receive from their own colleges of interest, so as to be tailored to their needs.

**Note:**
This hybrid/online course is taught and facilitated by an SBHS English teacher. The course is conducted primarily online through Google classroom with an (optional) weekly in-school meeting for the teacher to conference with students.

**Jump-Start Algebra (Non-credit course)**
This course centers on building the foundation of algebra in preparation for an Algebra I course. Using Chrome Books as a digital tool for learning, this course will focus on topics, expressions, order of operations and basic problem-solving skills. Students will build on their basic knowledge of absolute value, the coordinate plane and different algebraic properties by learning how to solve multi-step equations and inequalities, and the complex algebraic functions that accompany them, such as exponents. They will build on their existing knowledge of fractions by examining ratios, proportions and probability, and converting to/from decimals.

**Note:**
Space is limited so register early. This course is designed for students completing Concepts of Algebra with a grade of 70% – 80% in grade 8. Based on the teacher’s recommendation, students completing this course may be moved from Elements of Algebra I into Algebra I.

**Prep for Advanced Physics (Non-credit course)**
This course centers on building the foundation and ensuring a smooth transition into the advanced courses in physics offered at the high school – namely, Honors Physics and AP Physics 1. This course includes, but is not limited to, a review of fundamental concepts in Physics, computational skills, calculator skills, analysis of data, and graphing skills essential to building a strong foundation for a successful learning experience. It is intended for students who would benefit from additional support, such students that are on the cusp of meeting the requirements, and students who are concerned about their readiness and grasp of essentials necessary to meet the rigor and challenge expected for success in either Honors Physics or AP Physics 1. Students taking this course will be exposed to many of the skills and physics content covered in the first quarter of the year, and so, they will have a much easier time when they encounter the material during the school year.

**Prerequisite:**
Students must have met the prerequisites and be registered in either Honors Physics or AP Physics 1 for the 2021-2022 school year.

**Note:**
This is not a test preparation course for the AP.

**SAT/ACT Preparation: Reading, Writing & Language Sections (Non-credit course)**
Preparing for the Reading, Writing & Language, and Essay sections of the SAT and ACT tests can be daunting. This course will inform students of test-taking strategies specific to these sections of the SAT and ACT. In addition, students will prepare for these sections using SAT and ACT practice texts (including taking one full timed test each week to mark progress), as well as other sources. This course is a not-to-be missed opportunity for focused instruction and guidance in preparing for college entrance tests.

**Note:**
Space is limited so register early.

**SAT/ACT Preparation: Mathematics (Non-credit course)**
Preparing for the Mathematics Section of the SAT and ACT tests can be challenging. This course will inform students of test-taking strategies specific to the mathematics section of the SAT and ACT. In addition, students will prepare for the Mathematics sections using practice texts, as well as other sources. This course is a not-to-be missed opportunity for focused instruction and guidance in preparing for college entrance tests.
**Courses for Enrichment**

<table>
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<td><strong>Robotics with VEX IQ and Coding with ROBOTC</strong></td>
<td>Entering 7th Gr. - 12th Gr.</td>
<td>$500 In district</td>
<td>Session I: June 28 - July 16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$550 Out of District</td>
<td>Session II: July 19 - August 6</td>
</tr>
<tr>
<td><strong>Electronics Engineering, Coding &amp; Robotics with SparkFun</strong></td>
<td>Entering 7th Gr. - 12th Gr.</td>
<td>$500 In district</td>
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<tr>
<td><strong>COMBO COURSE: Digital Video and Media Creation &amp; Digital Design and Entrepreneurship using Laser Technology</strong></td>
<td>Entering 7th Gr. - 12th Gr.</td>
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</tr>
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**Note:** Space is limited so register early.

**Robotics with VEX IQ and Coding with ROBOTC**

The Robotics with VEX IQ and Programming with ROBOTC course is designed to introduce students to and explore ideas, concepts and skills of robotic engineering and coding using the VEX IQ robotics kit and ROBOTC coding language. Students will design, build and write code to program their robots to accomplish a variety of tasks under the guidance of a Technology Education teacher. Through their work, students will explore many engineering topics such as sensors, gears, pulleys and linkages while solving many different real-world challenges. In addition, students will be expanding their knowledge of the world of coding using the ROBOTC language to bring their creations to life!

**Electronics Engineering, Coding & Robotics with SparkFun**

The Electronics Engineering, Coding and Robotics with SparkFun course is designed to introduce students to electronic engineering, coding and robotic engineering. Students will be challenged to design, build and program many different real-world challenges with their SparkFun kit during the three-week course under the guidance of the classroom teacher. Students will be learning about how to program in C/C++ with the Arduino IDE, basic electrical engineering by breadboarding and design principles while creating custom robots. At the end of the course, students will be able to bring their SparkFun kits home with them to share their learning as well as continue their exploration!

**COMBO COURSE: Digital Video and Media Creation & Digital Design and Entrepreneurship using Laser Technology**

*Students will split their Institute day between these two courses.*

**Digital Video and Media Creation**

This course is designed to introduce students to digital video production. Students will write, plan, rehearse, videotape and edit several short video projects. Materials such as cameras, tripods, and computer editing software will be used, giving students the opportunity to improve their skills in public speaking, collaboration, language arts and media technology. At the end of the course, a link to the student-produced video projects will be shared with participants and their parents.

**Digital Design and Entrepreneurship using Laser Technology**

This course is designed to introduce students to design, engineering, and entrepreneurship through the use of various platforms such as Vectr and the Emblaser2 laser cutter. Using these tools, students will learn to develop vector drawings and make them come to life using the laser cutter. The Emblaser2 laser cutter can cut, etch, and engrave designs in a variety of materials, including acrylics, woods, paper and cardboard, fabric, and leather! Students will learn the elements of design and vector graphics and apply that knowledge to create beautiful works of technological art that can be marketed in a mock or real online shop!