

**SOMERSET BERKLEY  
REGIONAL HIGH SCHOOL  
SOMERSET, MASSACHUSETTS**  
COURSE DESCRIPTIONS  
2012-2013

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## **NON-DISCRIMINATION STATEMENT**

The Somerset Berkley Regional School District does not discriminate in admission to, access to, treatment in, or employment in its services, programs and activities, on the basis of race, color or national origin, in accordance with Title VI of the Civil Right Act of 1964 (Title VI); on the basis of sex, in accordance with Title IX of the Education Amendments of 1972; on the basis of age, in accordance with the Age Discrimination in Employment Act of 1975 (Age Discrimination Act); on the basis of domicile in accordance with Title VIIB of the McKinney-Vento Homeless Assistance Act of 2001; on the basis of native language in accordance with the No Child Left Behind Act of 2001, on the basis of disability, in accordance with Section 504 of the Rehabilitation Act of 1973 (Section 504) and Title II of the Americans with Disabilities Act of 1990 (ADA); or on the basis of sexual orientation or religion in accordance with Mass. Gen. Laws, Chapter 71 and 151B.

To file a complaint alleging discrimination or harassment by Somerset Berkley Regional High School on the basis of race, color, national origin, sex, age, domicile, native language, sexual orientation, or religion or to make inquiry concerning the application of Title VI, Title VII, Title IX, the Age Discrimination Act, and their respective implementing regulations, please contact:

Richard W. Medeiros, Superintendent of Schools  
Somerset Berkley Regional School District  
580 Whetstone Hill Road  
Somerset, MA 02726  
Telephone: (508) 324-3100

To file a complaint alleging discrimination or harassment by Somerset Berkley Regional High School on the basis of disability or to make inquiry concerning the application of Section 504 and the ADA and their respective implementing regulations, please contact:

Susan Doe  
Director of Special Education  
Somerset Berkley Regional School District  
580 Whetstone Hill Road  
Somerset, Ma 02726  
Telephone: (508) 324-3100

Inquiries concerning the applicability of the aforementioned federal laws and regulations to Somerset Berkley Regional High School may also be referred to the U.S. Department of Education, Office of Civil Rights (OCR), 33 Arch Street, Ninth Floor, Boston, MA 02110, telephone number (617) 289-0111, Fax (617) 289-0150.

## **SPECIAL EDUCATION**

Somerset Berkley Regional High School adheres to Federal Law and State Regulations when identifying, evaluating, and serving students who are experiencing difficulty accessing the curriculum effectively. When it becomes clear that a student may require specially-designed instruction and/or related services, parent consent is sought and assessments are conducted in the area of suspected need.

When reports become available, an Evaluation Team meets to review assessment and testing results, determine the student's eligibility for special education services, and develop an Individual Education Plan (IEP), if warranted.

A continuum of special education service exists in the high school ranging from the assistance that is provided in the general education classroom, to supportive lessons in instructional strategies offered in a resource room setting. Instruction in academic subject areas in a special education class with a pre-vocational and work study component is available for those students deemed appropriate by their Evaluation Team.

### **SECTION 504 OF THE AMERICANS WITH DISABILITIES ACT**

Section 504 is an Act which prohibits discrimination against persons with a disability in any program receiving Federal financial assistance. The Act defines a person with a disability as anyone who:

has a mental or physical impairment which substantially limits one or more major life activity (major life activities include activities such as learning, walking, seeing, hearing, speaking, breathing, caring for one's self, performing manual tasks and working); has a record of such impairment; or is regarded as having such an impairment

In order to fulfill the obligations under Section 504, Somerset Berkley Regional High School recognizes a responsibility to avoid discrimination in policies and practices regarding this personnel and students. No discrimination against a person with a disability will knowingly be permitted in any of the programs and practices in the school.

The school has specific responsibilities under the Act, which include the responsibility to identify, evaluate, and if the child is determined to be eligible under Section 504, to afford access to appropriate education services.

## **ADVANCED PLACEMENT PROGRAM**

### **The Program**

The Advanced Placement Program<sup>®</sup> is a cooperative educational endeavor between secondary schools and colleges and universities. Since its inception in 1955, the Program has provided motivated high school students with the opportunity to take college-level courses in a high school setting. Students who participate in the Program not only gain college-level skills, but in many cases they also earn college credit while they are still in high school. AP courses are taught by dedicated and enthusiastic high school teachers who follow course guidelines developed and published by the College Board.

The Program's success is rooted in the collaborative efforts of motivated students, dedicated teachers, and committed schools. By participating in the Program, secondary schools make the commitment to organize and support at least one class that is equivalent to a first-year college course.

### **The Audit**

The AP Course Audit was created at the request of secondary school and college members of the College Board who sought a means for the College Board to:

- provide teachers and administrators with clear guidelines on curricular and resource requirements that must be in place for AP courses; and
- help colleges and universities better interpret secondary school courses marked "AP" on students' transcripts.

All schools wishing to label a course "AP" as of the 2007-2008 school year must complete and return the subject-specific AP Course Audit form (available January 2007), along with the course syllabus, for each teacher of that AP course. Within two months of submitting AP Course Audit materials, schools will receive authorization for qualifying courses to use the "AP" designation on student transcripts. Each fall, beginning in 2007, colleges and universities will receive a ledger of schools that lists the courses authorized to use the "AP" designation at each school.

Information taken from [apcentral.collegeboard.com](http://apcentral.collegeboard.com) and AP<sup>®</sup> Course Audit Manual

## **SBRHS Core Beliefs and Values Statement**

In partnership with students, parents and the community, Somerset Berkley Regional High School will provide a safe and secure environment in which all students will have access to a rigorous curriculum that fosters critical and creative thinking. Somerset Berkley Regional High School will strive to develop students into responsible and productive citizens of a technological and global society.

S= Safe

B= Be critical and creative thinkers

R= Responsible and productive citizens

H= High expectations for all

S= Skills for the 21<sup>st</sup> century

### **Academic Expectations**

The academic expectations are aligned to the SBRHS Core Beliefs and Values statement and the Common Core Standards for College and Career Readiness. These expectations are measurable.

Students at SBRHS will:

1. Read analytically to support conclusions drawn from text
2. Produce clear and coherent writing that is appropriate to task, purpose and audience
3. Adapt speech to a variety of contexts and tasks
4. Solve problems and complete tasks by reasoning critically and creatively
5. Process information critically to become capable researchers
6. Demonstrate technological literacy to facilitate learning

### **Social and Civic Expectations**

Students at SBRHS will:

1. Demonstrate responsible behavior and citizenship
2. Respect themselves and others
3. Communicate and collaborate effectively with others

## Somerset Berkley Regional High School Graduation Requirements

Students should carefully review the requirements before registering for courses  
**Core Requirements**

<b>English</b>	4 years: English I, II, III, & IV	(24 credits)
<b>Social Studies</b>	3 years: Early U.S. History, Mod. U S. History, Mod. World History	(18 credits)
<b>Mathematics</b>	3 years: Any combination	(18 credits)
<b>Science</b>	3 years: Any combination	(21 credits)
<b>Physical Education</b>	4 years	( 8 credits)
<b>Health I &amp; II</b>	2 semesters	( 2 credits)
<b>Fine &amp; Performing Arts</b>	6 credits: Any combination	( 6 credits)
<b>Technology Education</b>	6 credits: Any combination	( 6 credits)

**A total of 144 credits are required to graduate.  
In addition, students must pass MCAS.**

### **New Graduation Requirement beginning with the Class of 2014**

Students will be required to complete 20 service hours over four years as a requirement for graduation from Somerset Berkley Regional High School. The community service project provides students with the opportunity to engage in active learning while developing good citizenship. Through the use of the instructional tool of community service, students will participate in service experiences that meet actual community needs. Students will explore aspects of civic engagement, as well as factors in creating and sustaining healthy communities. While completing the requirements of the community service project, students will also explore their identity in relation to the greater community. The community service project will be monitored by the assistant principals.

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### **Requirements for Progression to Next Course in the Sequence**

- Students must receive a minimum grade of 65 to proceed to the next course.
- Students with grades of 65-69 should attend summer school, pass with a 70 or higher and earn a C- on their transcript. Students who do not attend summer school may be advised to drop to a lower level in the course sequence.
- Students with failing grades of 50-64 should go to summer school and pass with 70 or higher to bring the final grade on the high school record to 65 and earn 6 credits. Failure to attend or pass summer school will require the student to repeat the course the next school year. If applicable, students will be advised to drop to a lower level in the course sequence.
- Students with a final average below 50 must retake the course the following year. The students may be advised to drop to a lower level in the course sequence. Summer school will not earn any credit or grade change; however, the student may enroll in summer school for remedial skill development.
- To advance to a higher level in any course, it is strongly recommended that students earn a grade of A- at the present level of study.

## **MEDIA CENTER**

### **Virtual High School**

Somerset Berkley Regional High School participates in the distance-learning program, Virtual High School. Virtual High School provides a wealth of quality online education options for high school students who would like a challenge in a computer setting.

Through VHS, schools expand their educational offerings and students expand their world view, as they attend class with students from across the country and around the world. Students gain access to a wide variety of courses not typically available and have the flexibility to take these courses anytime and anyplace as best fits their schedule. These courses are offered at various levels but are generally demanding and academically rigorous as they meet the same standards expected of students taking a traditional high school class.

Once enrolled, a student and his/her parent/guardian will sign a contract, which explains the responsibilities of taking a distance-learning course. For more information about the Virtual High School, students may visit the website [www.govhs.org](http://www.govhs.org), speak with their counselor to see if they qualify, and/or meet with the on-site coordinator for VHS.

### **Hours of Operation**

The media center is open from **7 a.m. - 4 p.m. Monday through Thursday and Friday 7 a.m. - 2:30 p.m.** for student research and study. The media center is home to an array of print and multimedia resources that complement the high school curriculum and are similar to those found in college and university settings. Students may borrow these materials with their Somerset-Berkley Regional High School library card.

**In addition to the high school's collection**, students are also able to take advantage of holdings from local public, college, and university libraries through inter-library loan. Students may expand on this by utilizing the Internet to view, download, and print information from anywhere in the world. Students may connect to the Internet from computers located in the media center. These computers may also be used for word-processing, CD-ROMs, and card catalog searches.

## ENGLISH LANGUAGE ARTS AND READING

The English Language Arts and Reading Department at Somerset Berkley High School offers a comprehensive and rigorous course of study which includes core requirements, electives, and reading and literacy supports. Our goal is to educate our students to be analytical readers, coherent writers, critical thinkers, complex problem solvers, and responsible citizens.

### COURSE OFFERINGS:

#### English I

##### Grade 9

###### Level 1

110100

This accelerated course will serve as the foundation for all college preparatory English study at Somerset-Berkley Regional High School. This introductory course will focus on the reading of traditional and contemporary literature. Particular emphasis will be placed upon the development of skills needed by students to become independent readers and writers. Students will begin their mastery of the following skills: analysis of literature, critical thinking and reading, understanding literature and the writing process. Students electing to take Level 1 are expected to be highly independent, self-motivated and organized learners. Time will be devoted to MCAS preparation. **Students should have earned a score of ADVANCED on the ELA MCAS.**

###### Level 2

120100

This course will serve as the foundation for all college preparatory English study at Somerset-Berkley Regional High School. This introductory course will focus on the reading of traditional and contemporary literature. Particular emphasis will be placed upon the development of skills needed by students to become independent readers and writers. Students will begin their mastery of the following skills: analysis of literature, critical thinking and reading, understanding literature and the writing process. Time will be devoted to MCAS preparation.

###### Level 3

130100

This introductory course will focus on the reading of traditional and contemporary literature. Particular emphasis will be placed upon the development of skills needed by students to become independent readers and writers. Students will develop the following skills: analysis of literature, critical thinking and reading, understanding literature and the writing process. Time will be devoted to MCAS preparation.

#### English II

##### Grade 10

###### Level 1

210100

This accelerated course chronologically surveys American literature from the pre-colonial period to the present. Students will continue their mastery of the following skills: analysis of literature, critical thinking and reading, understanding language, and the writing process. Students are challenged to read and analyze literary selections from a humanistic approach that regards literature in context with the history, the arts, and literary movements of the time period. Grammar, vocabulary, and composition are taught utilizing a whole language method that incorporates skill instruction with the literature. Frequent formal writing assignments and oral presentations are required. Time will be devoted to MCAS preparation. **Students should have earned a grade of B or better in 9<sup>th</sup> grade Level 1 English.**

###### Level 2

220100

This college preparatory course surveys American Literature from the pre-colonial period to the present. Students will analyze the writers' techniques found in the literary genres of the short story, non-fiction, poetry and the novel. Students will study each literary selection on three levels of comprehension: literal, interpretative and applied. Along with critical thinking and reading skills, the literature based program incorporates vocabulary, writing and grammar skill development. Frequent formal writing assignments and oral presentations are required. Time will be devoted to MCAS preparation.

###### Level 3

230100

This course surveys American Literature from the pre-colonial period to the present. Students will analyze the writers' techniques found in the literary genres of the short story, non-fiction, poetry and the novel. Students will study each literary selection on three levels of comprehension: literal, interpretative and applied. Along with critical thinking and reading skills, the literature based program incorporates vocabulary, writing and grammar skill development. Students will be expected to produce informal and formal writing assignments as well as oral presentations. Time will be devoted to MCAS preparation.

#### English III

##### Grade 11

###### Level 9 AP English Language and Composition

390100

In this Advanced Placement Course, students will study British Literature and the art of rhetoric. Students will be able to analyze writers' rhetorical and linguistic choices as well as apply different rhetorical and linguistic strategies to their own writing. Students will read from a variety of prominent English language autobiographers, diarists, political writers, biographers, historical writers, essayists, fiction writers and literary critics. The completion of extensive summer assignments is a requirement of this course. Please do not elect this course if you are unwilling to complete the summer assignments. **Students should have earned a**

**grade of A- or better in 10<sup>th</sup> grade Level 1 English and must take a writing placement examination. All students are required to take the AP exam.**

## **English III (continued)**

### **Grade 11**

#### **Level 1**

**310100**

This course emphasizes the reading and appreciation of the literature of Great Britain. Students will be encouraged to think and read critically by focusing on the literature in its historical context from the Anglo-Saxon Period through contemporary writers. Grammar, vocabulary and composition are taught using a whole language method. An extensive research project is required. Time will be devoted to SAT preparation. **Students should have earned a grade of B or better in 10<sup>th</sup> grade Level 1 English.**

#### **Level 2**

**320100**

This college preparatory course surveys British literature from the Anglo-Saxon through the contemporary times. Students will continue their mastery of literary analysis, critical thinking and critical reading. Grammar, vocabulary and composition are taught using the whole language approach. Writing assignments will become more frequent and more challenging. A research project is required. Time will be devoted to SAT preparation.

#### **Level 3**

**330100**

This course surveys British literature from the Anglo-Saxon through the contemporary times. Students will continue their mastery of literary analysis, critical thinking and critical reading. Grammar, vocabulary and composition are taught using the whole language approach. Writing assignments will become more frequent and more challenging. A research project is required. Time will be devoted to SAT preparation.

## **English IV**

### **Grade 12**

#### **Level 9**

#### **AP English Literature and Composition**

**490100**

In this Advanced Placement Course, students will read and analyze some of the most prominent poetry, drama, novels, short stories and essays written at various times and cultures with particular emphasis being on literature originally written in English. Through the close reading of selected texts, students will consider a work's structure, style, and themes as well as such smaller-scale elements as the use of figurative language, imagery, symbolism and tone. The writing focus is the analytical essay about literature. Students will learn to sustain an argument while guiding a reader through well-organized evidence drawn from details of the text. The completion of extensive summer assignments is a requirement of this course. Please do not elect this course if you are unwilling to complete the summer assignments. **Students should have earned a grade of A- or better in 11<sup>th</sup> grade Level 1 English and must take a writing placement examination. All students are required to take the AP exam.**

#### **Level 1**

**410100**

The focus of this senior honors course is the study of world literature. Through this comparative approach, students will analyze major themes in literature such as justice, love, truth and identity. In addition to extensive reading, students will be required to produce a wide variety of writing assignments. The course will include vocabulary work, college essay preparation and a research project. **Students should have earned a grade of B or better in 11<sup>th</sup> grade Level 1 English.**

#### **Level 2**

**420100**

The focus of this senior college preparatory course is the comparative study of world literature. Through this approach, students will analyze major themes in literature such as justice, love, truth and identity. In addition to outside reading, students will be required to refine their writing skills and techniques. The course will include vocabulary work, college essay preparation and a research project.

#### **Level 3**

**430100**

The focus of this senior course is the comparative study of world literature. Through this approach, students will analyze major themes in literature such as justice, love, truth and identity. In addition to outside reading, students will be required to refine their writing skills and techniques. The course will include vocabulary work, college essay preparation and a research project.

## **Reading**

### **Grades 9-12**

#### **6 periods per cycle**

**600212**

This course is a comprehensive reading intervention program in which a reading specialist provides direct instruction and reinforcement for students most in need of intensive and specialized help. The goal of this course is to create learners who can independently access and respond to fiction and informational text. Students will be guided to improve vocabulary, word attack skills, reading comprehension, study and work skills, listening and fluency and other specific literacy skills. Homework is assigned frequently. Upon completion of a diagnostic assessment, personalized reading plans are prepared by a reading specialist. Class sizes are small to accommodate personal student/teacher interaction. Credit toward graduation is awarded based on successful completion and periods per cycle. **Students will receive a numerical grade.**

## English Department Part-time Courses

### Speech and Debate

Grade 9-12

3 periods per cycle

620600

Students will learn the fundamentals of speech communication, research skills and the art of debate. They will listen to, deliver, discuss and respond to presentations of increasing complexity. These include introductory, informative, persuasive, interview, impromptu, tribute and process speeches.

### Mythology and Folklore

Grade 10-12

3 periods per cycle

620500

Myths and folktales have appealed to people of all ages for thousands of years. In this course, students will examine the roles that myths and folktales have played in people's lives since the first evidence of their existence through contemporary times. This course will offer students the opportunity to study and interpret myths, folktales and fairy tales from a variety of cultures and respond creatively to them. In addition to frequent and various writing assignments, students will be required to perform a variety of performance based projects.

### Journalism

Grades 9-12

3 periods per cycle

60200

This mini course is designed to introduce students to journalism. Students will use models of good writing to determine techniques that good writers use and will apply these techniques while developing writing portfolios. Students will study the history of journalism, conduct independent research and interviews, investigate student press laws and ethics and examine the skills needed to write for a newspaper. During the third term, students will create their own newspaper. During the fourth term, students will explore photojournalism.

### American Media Studies

Grades 10 -12

3 periods per cycle

In order to develop critical visual literacy, students must come to understand that film is an ever evolving art form which affects and is affected by historical events, emerging technologies, and cultural values. Students will engage in a deep exploration of multiple film genres, changing film craft, critical texts and significant film theories. Topics will include, Traditional Hollywood Narrative and Style (camera/editing, lighting, and sound); Globalization and the Film Industry, Diverse Cultural Film Narratives, Melodrama; Theories of Realism vs. Theories of Formalism; Auteur Theory; Cinema and Culture; and The Star System. Students are encouraged to make connections between the content studied in this course and other forms of American media. **Students will be asked to view and analyze films which deal with mature themes, including representations of race and gender. Therefore, students should consult their parents and receive their permission prior to enrolling in this course**

### Reading

Grades 9-12

3 periods per cycle

601312

This course is a comprehensive reading intervention program in which a reading specialist provides direct instruction and reinforcement for students in need of some intensive and specialized help. The goal of this course is to create learners who can independently access and respond to fiction and informational text. Students will be guided to improve vocabulary, word attack skills, reading comprehension, study and work skills, listening and fluency and other specific literacy skills. Homework is assigned frequently. Upon completion of a diagnostic assessment, personalized reading planes are prepared by a reading specialist. Class sizes are small to accommodate personal student/teacher interaction. Credit toward graduation is awarded based on successful completion and periods per cycle. **Students will receive a numerical grade.**

### Literacy Lab

Grades 9-12

2 periods per cycle

502100

This class is offered to grade 9-12 students who can benefit from supplementary small-group instruction and practice in the literacy skills that are necessary for success in content classrooms. Students will develop reading strategies, vocabulary skills and effective writing techniques appropriate to the requirements of the Massachusetts Curriculum Frameworks. **(This may be taken in conjunction with a Reading Course and/or English Language Arts Lab.)**

**English Language Arts Lab  
Grade 9-12**

**2 periods per cycle**

**500100**

Language Arts Lab is a year-long class which meets twice per cycle. Students are placed on the basis of their English Language Arts score on the Massachusetts Comprehensive Assessment System (MCAS) test. In preparation for the next test administration, students practice vocabulary, reading comprehension, and writing skills as well as test-taking strategies. Special attention is paid to areas where a need for improvement was indicated by previous test scores. **(This may be taken in conjunction with a Reading Course and/or Literacy Lab.)**

**SOCIAL STUDIES**

The goal of the Social Studies Department is to develop responsible, engaged citizens who are prepared to succeed in a 21<sup>st</sup> century global and technological world. The discipline of Social Studies provides content that students will use to understand political, social, and economic issues. It also allows students to hone their skills and apply knowledge to make effective personal and public decisions. While acquiring specific content knowledge, students will develop 21<sup>st</sup> century skills including analysis, critical thinking, problem solving, research, reading, and writing.

<b>Suggested Social Studies Course Sequence</b>				
<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>	
Early U.S. History Levels AP, 1, 2, 3	Modern U.S. History Levels AP, 1, 2, 3	Modern World History Levels AP, 1, 2, 3	Electives	
<b>Electives</b>	<b>Grades 11 and 12</b>			
<u>No Level (3p/c)</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>AP Level</u>
Comparative World & U.S. Geography (all grades) The American Exp (11, 12)	Intro to Psychology Law International Relations Economics Abnormal & Social Psychology	Intro to Psychology Law International Relations Economics	Contemporary Issues Law	European History Psychology

**COURSE OFFERINGS:**

**U.S. History & Government before 1877 with document readings  
Grade 9**

**Level 9 (AP)**

**190101**

In this course, students will engage in a comprehensive and in-depth analysis of political, social, economic, diplomatic, intellectual and cultural aspects of U.S. history from colonial times to the end of the Reconstruction period. Based on primary and secondary sources, this course utilizes extensive document readings that enhance students' comprehensive reading of the text. Students will develop skills in historical interpretation, oral argument, and writing and research in preparation for the United States History Advanced Placement Exam, which will be taken in the spring of grade 10.

**U.S. History & Government 1763-1877 with document readings  
Grade 9**

**Level 1**

**110101**

Students will examine the historical and intellectual origins of the United States during the Revolutionary and Constitutional eras. Students will study the basic framework of American democracy and the basic concepts of American government, as well as

America's westward expansion, the establishment of political parties, economic and social change, sectional conflict, the Civil War and Reconstruction. Students will be required to interpret and analyze substantial primary source and supplemental readings, sometimes independently.

### **Level 2**

**120101**

Students will examine the historical and intellectual origins of the United States during the Revolutionary and Constitutional eras. Students will study the basic framework of American democracy and the basic concepts of American government, as well as America's westward expansion, the establishment of political parties, economic and social change, sectional conflict, the Civil War and Reconstruction. Students will be required to interpret and analyze primary and secondary source readings.

### **Level 3**

**130101**

Students will examine the historical and intellectual origins of the United States during the Revolutionary and Constitutional eras. Students will study the basic framework of American democracy and the basic concepts of American government, as well as America's westward expansion, the establishment of political parties, economic and social change, sectional conflict, the Civil War and Reconstruction. Students will have extensive opportunity to practice close reading skills thereby preparing them for independent historical analysis. Students will be introduced to the interpretation and analysis of required primary source documents.

## **U.S. History & Government from 1877 with document readings (AP)**

### **Grade 10**

#### **Level 9**

**290101**

In this rigorous college course students will engage in a comprehensive and in-depth analysis of the political, social, economic, diplomatic, intellectual, and cultural forces that influenced the United States from the end of the Reconstruction period to the present. Based on primary and secondary sources, this course utilizes extensive document readings that enhance students' comprehensive reading of the text. Students will develop skills in historical interpretation, oral argument, and writing and research in preparation for the United States History Advanced Placement Exam which will be taken in the Spring. **All students are required to take the AP exam. Prerequisite: Completion of U.S. History and Gov. 1763-1877, Level 9 and completion of a summer assignment.**

## **U.S. History & Government from 1877 with document readings**

### **Grade 10**

#### **Level 1**

**210101**

Students will analyze the causes and results of the Industrial Revolution and America's growing role in international relations. Students will also examine the goals and accomplishments of the Progressive and New Deal Eras and the various factors that led to America's entry into World War II as well as its effects. In addition, students will study the causes and events of the Cold War, the Civil Rights movement and recent social, political, and economic developments. Students will be required to interpret and analyze substantial primary source and supplemental readings independently.

#### **Level 2**

**220101**

Students will analyze the causes and results of the Industrial Revolution and America's growing role in international relations. Students will also examine the goals and accomplishments of the Progressive and New Deal Eras and the various factors that led to America's entry into World War II as well as its effects. In addition, students will study the causes and events of the Cold War, the Civil Rights movement and recent social, political, and economic developments. Students will be required to interpret and analyze primary source and supplemental readings, at times independently.

#### **Level 3**

**230101**

Students will analyze the causes and results of the Industrial Revolution and America's growing role in international relations. Students will also examine the goals and accomplishments of the Progressive and New Deal Eras and the various factors that led to America's entry into World War II as well as its effects. In addition, students will study the causes and events of the Cold War, the Civil Rights movement and recent social, political, and economic developments. Students will continue to develop analytical skills using required primary source documents and supplemental readings.

## **World History AP**

### **Grade 11**

#### **Level 9**

**490101**

This course will follow the Advanced Placement World History curriculum and prepare students for the Advanced Placement exam. World history will be studied from 8,000 B.C.E to the present. Students will analyze and interpret a wide variety of challenging primary and secondary sources. Students will develop proficiency in historical thinking skills. **All students are required to take the AP exam. Prerequisite: Completion of a summer assignment.**

## **Modern World History**

### **Grade 11**

#### **Level 1**

**310101**

Students will study the period from the Enlightenment to the present time. Major forces such as liberalism, nationalism, and imperialism evident throughout the 19<sup>th</sup> and 20<sup>th</sup> centuries will be examined. In addition, the course will proceed with the study of events, concepts, and ideologies associated with revolutions, war and conflict, technological revolutions, and modernization of the

20<sup>th</sup> century to the present. Diversity of culture and social, political economic developments will be emphasized. Students will draw upon the following skills: chronological thinking, historical comprehension, analysis and historical research. Students will be required to interpret and analyze substantial primary source and supplemental readings independently.

### **Level 2**

**3200101**

Students will study the period from the Enlightenment to the present time. Major forces such as liberalism, nationalism, and imperialism evident throughout the 19<sup>th</sup> and 20<sup>th</sup> centuries will be examined. In addition, the course will proceed with the study of events, concepts, and ideologies associated with revolutions, war and conflict, technological revolutions, and modernization of the 20<sup>th</sup> century to the present. Diversity of culture and social, political economic developments will be emphasized. Students will draw upon the following skills: chronological thinking, historical comprehension, analysis and historical research. Students will be required to interpret and analyze primary source and supplemental readings.

## **Modern World History**

### **Grade 11**

#### **Level 3**

**330101**

Students will study the period from the Enlightenment to the present time. Major forces such as liberalism, nationalism, and imperialism evident throughout the 19<sup>th</sup> and 20<sup>th</sup> centuries will be examined. In addition, the course will proceed with the study of events, concepts, and ideologies associated with revolutions, war and conflict, technological revolutions, and modernization of the 20<sup>th</sup> century to the present. Diversity of culture and social, political economic developments will be emphasized. Students will draw upon the following skills: chronological thinking, historical comprehension, analysis and historical research. Students will be required to interpret and analyze primary source and supplemental readings to develop and refine investigative skills. Students will draw conclusions from information they have found through deciphering primary source documents.

## **Introduction to Psychology (AP)**

### **Grades 11, 12**

#### **Level 9**

**390201**

This course will follow the Advanced Placement Psychology curriculum and prepare students for the Advanced Placement exam. The Advanced Placement Psychology course involves an in-depth analysis of the biological foundations of the brain, perception, states of consciousness, thinking, language, motivation, learning, memory, personality theory, therapeutic techniques, and social psychology. Students will develop research and writing skills in preparation for the spring AP Psychology exam. **All students are required to take the AP exam. Prerequisite: Completion of a summer assignment**

## **Introduction to Psychology**

### **Grades 11, 12**

#### **Level 1**

**310201**

The purpose of this course is to provide the students with the opportunity to gain in-depth knowledge of terminology and conceptual material of Psychology. Areas of concentration for the course include biological foundations of the brain, perception, states of consciousness, thinking and language, motivation, learning, memory, classical and operant conditioning, personality theory, abnormal psychology, therapeutic techniques and social behavior. Students are required to regularly, and primarily independently, complete readings and outline the material in order to contribute in class activities and discussions. The rigor and depth of discussion, analysis, and complexity of material is of the nature in which students are to take greater personal responsibility of the content. Students will be provided a structure for understanding of material through guided discussion, case studies, and project based activities.

#### **Level 2**

**320201**

The purpose of this course is to provide the students with the opportunity to gain in-depth knowledge of terminology and conceptual material of Psychology. Areas of concentration for the course include biological foundations of the brain, perception, states of consciousness, thinking and language, motivation, learning, memory, classical and operant conditioning, personality theory, abnormal psychology, therapeutic techniques and social behavior. Students are required to regularly complete readings and supportive assignments, and contribute in class activities and discussions. Students are guided with instruction of material with regard to complexity, depth, and pace of presenting concepts as appropriate to the level. Students will be provided a structure for understanding of material through, notes, guided discussions, case studies and project based activities.

## **Abnormal & Social Psychology**

### **Grade 12**

#### **Level 1**

**410201**

The purpose of this psychology course is to provide the students with the opportunity to gain in-depth knowledge of abnormal & social psychology. The first two terms will focus on the diagnosis, causes, and treatment of mental disorders. The remaining terms will focus on social psychology theory and applications. Areas of focus will include the psychological study of gangs, terrorism, crime, bullying, and other relevant social topics. Students will explore psychological concepts in the class through activities, projects, and problem-based learning.

## **Economics**

### **Grades 11, 12**

#### **Level 1**

**310301**

This course is an introductory survey of the basic principles of microeconomics and macroeconomics. Students will examine key economic concepts through simulation activities, projects, participation in the stock market game and problem-based learning. Among the topics analyzed are the study of markets, externalities, government intervention, taxation, national income, economic role of government, trade, banking, and money. Students will be required to analyze primary and secondary sources and demonstrate their skills through a short writing /reflection assignment each term.

#### **Level 2**

**320301**

This course is an introductory survey of the basic principles of microeconomics and macroeconomics. Students will examine key economic concepts through simulation activities, projects, participation in the stock market game and problem-based learning. Among the topics analyzed are the study of markets, externalities, government intervention, taxation, national income, economic role of government, trade, banking, and money. Students will be given scaffolded learning opportunities to develop the critical skills of analysis, synthesis, and evaluation of primary and secondary sources.

## **International Relations: The World Since 1945**

### **Grades 11, 12**

#### **Level 1**

**310601**

This course is designed to focus on US foreign policy and the critical international issues facing our world today. Emphasis will be placed on such topics as the US response to terrorism and terrorist groups such as Al Qaeda, nuclear proliferation, affects of globalization, and our relations with vital countries such as Iran and China. In addition, students will gain knowledge of the United Nations and its role, as well as the plight of developing nations socially, politically, and economically. This course will require active participation through debate and discussion. Students will analyze substantial primary source documents independently. In addition, assignments will require more complex ideas developed within their writing. Participation in Model UN is encouraged.

#### **Level 2**

**320601**

This course is designed to focus on US foreign policy and the critical international issues facing our world today. Emphasis will be placed on such topics as the US response to terrorism and terrorist groups such as Al Qaeda, nuclear proliferation, affects of globalization, and our relations with vital countries such as Iran and China. In addition, students will gain knowledge of the United Nations and its role, as well as the plight of developing nations socially, politically, and economically. This course will require active participation through debate and discussion. Students will analyze primary source documents with instructional support. In addition, assignments will include required elements to develop writing. Participation in Model UN is encouraged.

## **Contemporary Issues**

### **Grades 11, 12**

#### **Level 2**

**320501**

This course emphasizes the issues and problems that face the world today. Through the use of magazine and newspaper articles, news media and film, students will analyze various issues that shape the society in which they live. Units of study include but are not limited to: terrorism, immigration, the economy, societal problems, politics, and racism. Beyond focusing on these specific units of study, students will also be required to keep abreast of current events, demonstrated through class discussion and written summary. Students will be assessed based upon their successful use of skills in extensive writing and analysis, their understanding and ability to be able to put together a comprehensive, sophisticated argument in an oral presentation, and the synthesis of information through research. The goal of this elective is to provide students with the ability to understand major issues that impact their lives.

#### **Level 3**

**330501**

This course emphasizes the issues and problems that face the world today. Through the use of magazine and newspaper articles, news media and film, students will analyze various issues that shape the society in which they live. Units of study include but are not limited to: terrorism, immigration, the economy, societal problems, politics, and racism. Beyond focusing on these specific units of study, students will also be required to keep abreast of current events, demonstrated through class discussion and written summary. Students will be assessed upon their continuing development in written analysis and general conceptual understanding of topic of study. Students will be assessed based upon their ability to develop a clear, organized argument in an oral presentation. Students will have ample opportunity to develop effective research methods. The goal of this elective is to provide students with the ability to understand major issues that impact their lives.

## **Law**

### **Grades 11, 12**

#### **Level 1**

**310401**

The course will introduce students to the basics of the American legal system. The course will emphasize Constitutional Law and the rights that it provides to American citizens. Students will explore the areas of freedom of speech, freedom of religion, rights of the accused, rights to privacy, and civil rights. Additional emphasis will be placed on criminal law and the course will examine the arguments and strategies involved in both prosecuting and defending criminal cases. The course will also explore the basics of family law, civil law, and business law. Students will develop logical and critical thinking skills in their legal analysis of

significant legal cases, at times independently. Students will learn to write legal briefs and will participate in debates and mock trials.

## **Law**

**Grades 11, 12**

**Levels 2, 3**

**320401, 330401**

The course will introduce students to the basics of the American legal system. The course will emphasize Constitutional Law and rights that it provides to American citizens. Students will explore the areas of freedom of speech, freedom of religion, rights of the accused, rights to privacy, and civil rights. Additional emphasis will be placed on criminal law and the course will examine the arguments and strategies involved in both prosecuting and defending criminal cases. The course will also explore the basics of family law, civil law, and business law. Students will develop logical and critical thinking skills in their legal analysis of significant legal cases. Students will participate in debates and mock trials.

## **European History AP**

**Grade 12**

**Level 9**

**490201**

This course examines the history of Europe from the 15<sup>th</sup> century to the present. Emphasis will be placed on political, diplomatic, social, economic, intellectual and cultural developments. Students will analyze a wide variety of challenging primary and secondary sources to evaluate historical evidence and offer insight on different historical interpretations of Western Civilization. This course will correspond to recent trends in history curricula at the undergraduate level and will prepare students for the College Board examination in European History. **All students are required to take the AP exam. Prerequisite: Completion of a summer assignment.**

## **Social Studies Department Part-time Courses**

### **U.S. and World Comparative Geography**

**Grades 9-12**

**3 periods per cycle**

**605401**

This course is a broad overview of the major regions of the world and a study of people, places and environment from a physical and cultural perspective. Through a variety of classroom activities and projects, students will gain an appreciation and understanding of the interdependent world in which they live. Students will analyze and evaluate the connection between their local and global communities.

### **Post WWII: The American Experience Since 1945**

**Grades 11-12**

**3 periods per cycle**

**603401**

This course will take an in-depth look into American affairs in the post World War II era. Some of the topics covered are: the Korean War, Cold War conflicts and policies, the Civil Rights movement, the Vietnam War, Watergate, and the War in Iraq. This course will look into popular culture issues such as music, art, everyday life and new technology of the time. The goal of this course is to give the students a better understanding of American life and government today.

## **MATHEMATICS**

### **Mathematics Dept. Calculator Policy:**

To follow the Massachusetts Curriculum Frameworks and to meet our school's academic expectations, it is necessary to utilize technology as an essential tool in the teaching of mathematics. In keeping with the school's Core Values and Beliefs Statement, that each student come to school ready to learn, and to maximize learning success, appropriate calculators will be recommended for use at home and in school.

***It is recommended that all students provide their own calculators and develop proficiency with them.*** Scientific calculators are sufficient for Geometry courses. Graphing calculators are encouraged for all courses starting with Algebra II, while strongly recommended for Pre-Calculus and Calculus. Graphing calculators are required for AP Statistics. The TI-84+ graphing calculator is recommended. Teachers will inform students of the appropriate calculator at the beginning of the school year.

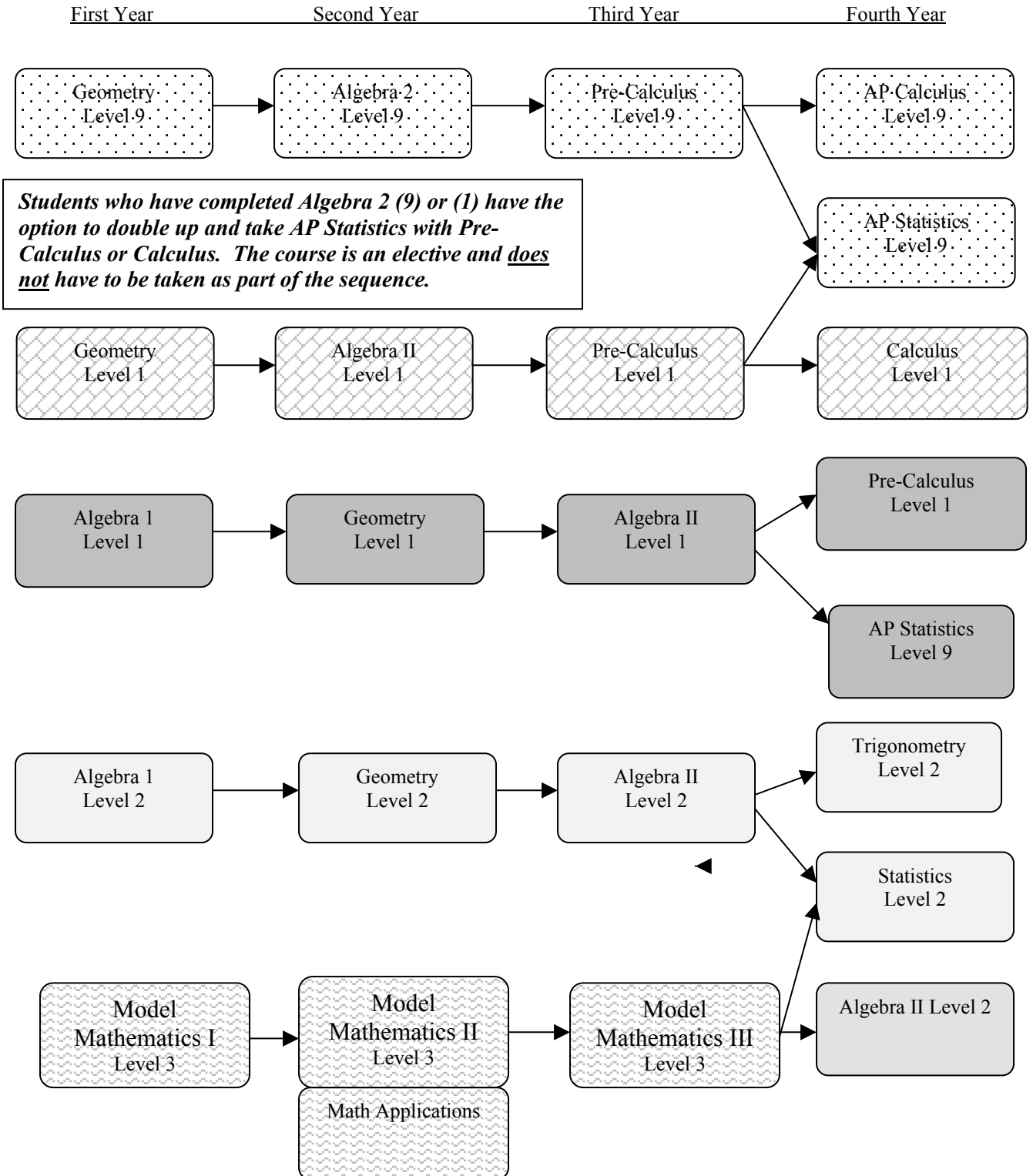
In addition, students taking the math portion of the state testing program (MCAS), the PSAT's and the SAT's will be required to have their own calculators and be proficient with them. A minimum scientific calculator is required. A graphing calculator is required for taking the Calculus AP exam and the AP Statistics exam.

### **Mathematics Dept. Summer Packet Policy:**

In order to have students maintain content knowledge, summer packets are given at the end of the previous school year. The

summer packets are due the first Monday after school begins. There are no exceptions. The packets are given to all students entering Geometry, Algebra 2, Pre-Calculus and Calculus. If a summer packet is lost, it is available for download on the math department website [shsmath.webnode.com](http://shsmath.webnode.com).

### MATHEMATICS SUGGESTED COURSE SEQUENCE



## COURSE OFFERINGS:

### Algebra I Grade 9 Level 1

110103

This course is an in-depth study of Algebra I which proceeds at a quick pace. The concepts of algebra are introduced with an examination of the structure and the techniques of algebra, linear equations, factoring, quadratic equations, inequalities, graphing, probability, and statistics. Real world applications are integrated throughout the course. **Students should have a minimum average of C+ in level 1 Math in grade 8 and/or qualify according to skill level on a grade 8 placement test.**

### Algebra I Grade 9 Level 2

120103

The concepts of algebra are introduced with an examination of the structure and the techniques of algebra. Topics studied include: number lines, variables, functions, linear equations, factoring, quadratic equations, inequalities, graphing, probability, and statistics. Real world applications are integrated throughout the course. **Students should show appropriate skill level to succeed in this course by taking a grade 8 placement test.**

### Model Mathematics I Grade 9, 10 Level 3

130103

The fundamental purpose of the course is to formalize and extend the mathematics that students learned in the middle grades. This course is comprised of standards selected from the high school **conceptual categories of the Common Core Frameworks**, which were written to encompass the scope of content and skills to be addressed throughout grades 9–12 rather than through any single course. This is a course in which students learn mathematics in the context of real world applications and a wide variety of problems. The course is intended for students who have difficulty with the abstract nature of the traditional approach. Topics in Algebra, Geometry, Logical Reasoning, Measurement, Probability, Data Analysis, Statistics, Patterns, Relations, Number Sense and Operations are interwoven throughout. These topics are spiraled throughout the course to enhance learning. This course is part of a three-year sequence. **Students should have successfully completed Pre-Algebra.**

### Geometry Grades 9, 10 Level 9

190103

Students taking this course will move at a quicker pace than level one. This course is a more in-depth study of Geometry including the definitions, postulates, and theorems of plane geometry using a rigorous theoretical approach with emphasis on logical arguments and proofs. The course covers plane geometry, deductive reasoning, problem solving strategies, and logic. Solids and three-dimensional space is explored and developed including surface area and volume. There is a special emphasis on coordinate and transformational geometry. Right triangle trigonometry is introduced and explored. **Students should have a minimum average of B+ in Algebra 1, level 1, in grade 8 or 9, and qualify according to skill level on an Algebra final exam.**

### Geometry Grades 9, 10 Level 1

210103

This course covers the definitions, postulates, and theorems of plane geometry using more rigorous approach than a level 2 course. Plane geometry, deductive reasoning and logic, areas and volumes of plane and solid figures are also covered. Solids and three-dimensional space is explored and developed including surface area and volume. There is a special emphasis on coordinate and transformational geometry. Right triangle trigonometry is introduced and explored. **Students should have successfully completed Algebra I level 1 with a final average of C+ in grade 8 or 9 and/or achieved a qualifying score on an Algebra I final exam.**

### Geometry Grade 10 Level 2

220103

This course emphasizes a more investigative approach to geometry. Students study plane geometry, deductive reasoning and logic. Solids and three-dimensional space are explored, including surface area and volume. There is a special emphasis on coordinate and transformational geometry. Right triangle trigonometry is also introduced. **Students should have successfully completed Algebra 1 level 2 with a minimum final average of C-**

## **Model Mathematics II**

**Grades 10, 11**

**Level 3**

**230103**

The focus of the Model Mathematics II course is on quadratic expressions, equations, and functions; comparing their characteristics and behavior to those of linear and exponential relationships from Model Mathematics I. Topics covered will be from the same areas of mathematics but will build on knowledge from the previous year. **Students should have successfully completed Model Mathematics I, Integrated Math I or Basic Algebra I**

## **Math Applications**

**Grades 10-12**

**No Level**

**230203**

This course emphasizes the Learning Standards of the five strands of the Massachusetts Mathematics Curriculum Framework: 1.) Number Sense and Operations, 2.) Patterns, Relations, and Algebra, 3.) Geometry, 4.) Measurement, and 5.) Data Analysis, Statistics, and Probability. The course is designed to prepare students for the mathematics portion of the MCAS test. Students are evaluated on the basis of their performance in previous math courses and prior MCAS scores for placement into this class.

**Requirement: This MCAS course must be taken in conjunction with another math course. IT CAN NOT BE TAKEN ALONE. This course does not count toward the mathematics graduation requirement.**

## **Algebra II**

**Grades 10, 11**

**Level 9**

**290103**

This course covers all the topics of Advanced Algebra II at a rapid pace and in depth. The concepts of algebra are expanded to include real and complex numbers, graphing, conic sections, all aspects of quadratic equations, varied applications of word problems, systems of equations, matrices and logarithms. Students are strongly encouraged to have their own graphic calculator. The TI-83 is recommended and will be used in class. **Students should have successfully completed level 9 Geometry or level 1 Geometry with an average of B+ or higher.**

## **Algebra II**

**Grades 10, 11**

**Level 1**

**310103**

The concepts of algebra are expanded to include real and complex numbers, various functions, graphing, conic sections, all aspects of quadratic equations, varied applications of word problems, systems of equations, matrices and logarithms. Students are strongly encouraged to have their own graphic calculator. The TI-83 is recommended and will be used in class. This course covers all the topics of Algebra II, level 2, in greater depth and rigor. Additional topics include matrices, and determinants. **Students should have successfully completed Geometry and Algebra level 1 with an average of C- or better.**

## **Algebra II**

**Grades 11, 12**

**Level 2**

**320103**

This course in intermediate Algebra continues the study of the structure of algebra, reinforcing the topics of Algebra I. The concepts of algebra are expanded to include real and complex numbers, various functions, graphing, conic sections, all aspects of quadratic equations, varied applications of word problems, systems of equations, and matrices. **Students should have successfully completed Geometry and Algebra I.**

## **Model Mathematics III**

**Grades 11, 12**

**Level 3**

**330103**

It is in the Model Mathematics III course that students integrate and apply the mathematics they have learned from their earlier courses. The main focus is on four critical areas: (1) apply methods from probability and statistics to draw inferences and conclusions from data; (2) expand understanding of functions to include polynomial, rational, and radical functions; (3) expand right triangle trigonometry to include general triangles; and (4) consolidate functions and geometry to create models and solve contextual problems. **Students should have successfully completed Model Mathematics II, Integrated Math II, or Basic Geometry.**

## **Pre-Calculus**

**Grade 11**

**Level 9**

**390103**

This course will cover all topics found in Pre-Calculus with more depth and an accelerated pace. Students will also study additional topics relating to the study of calculus. This course includes a thorough study of functions, trigonometry, and other advanced topics. This course begins a study of mathematics that thoroughly combines algebra and geometry. Since functions are the foundation of calculus, the course covers rational, exponential, trigonometric and logarithmic functions. Other topics addressed

include: circular functions, identities, analytic geometry, complex numbers, matrices, determinants, polar coordinates, limits and series. Graphing calculators are necessary for this course. (Prerequisite: C or better in Algebra II or recommendation of math teacher.) Students taking this course should be planning to enroll in AP Calculus as seniors. **Students should have successfully completed Algebra II (9) with a B average or higher or Algebra II (1) with an A average.**

### **Level 1 Grades 11, 12**

**410103**

This course includes a thorough study of functions, trigonometry, and other advanced topics. This course begins a study of mathematics that thoroughly combines algebra and geometry. Since functions are the foundation of calculus, the course covers rational, exponential, trigonometric and logarithmic functions. Other topics addressed include: circular functions, identities, analytic geometry, complex numbers, matrices, determinants, polar coordinates, limits and series. Graphing calculators are necessary for this course. **Students should have successfully completed Algebra II Level I with a C average or higher.**

### **AP Statistics Grades 11, 12**

#### **Level 9**

**390203**

This course is designed to cover the syllabus for Advanced Placement Statistics as prescribed by the College Entrance Examination Board. Students are expected to take the AP Statistics exam in the spring when the course concludes. A TI-83 Plus calculator, or the equivalent is required for use in this course. Topics include exploring data, sampling and experimentation, anticipating patterns and statistical inference. **Students should have successfully completed Algebra 2 (9) or (1).**

### **Statistics Grade 12**

#### **Level 2**

**420203**

This course specifically addresses the tenth and twelfth grade Massachusetts Mathematics Curriculum Frameworks in Data Analysis, Statistics, and Probability. In addition, the course will also cover some standards in Patterns, Relations and Algebra, as well as Number Sense and operations. Students enrolled in this course are assumed to have mastered the concepts outlined in the Algebra 2 standards of the Common Core curriculum frameworks. The purpose of this course is to present basic concepts and techniques for collecting and analyzing data, drawing conclusions, and making predictions. This course will assist in the preparation for college and potential mathematics entrance/placement exams. There will be many projects and case studies to enhance student learning. A scientific calculator is recommended for this course. **Students should have successfully completed Algebra II or Basic Algebra II.**

### **Trigonometry/Advanced Algebra**

#### **Grade 12**

#### **Level 2**

**420103**

This course is designed for students who are interested in continuing their study of mathematics. All topics of trigonometry will be covered as well as a review and extension of algebra topics. Students expecting to take more mathematics courses in the future or planning to study electronics and other technical fields would be well advised to elect this course. **Students should have successfully completed Algebra II.**

### **Calculus AP**

#### **Grade 12**

#### **Level 9**

**490103**

This course is designed to cover the syllabus for Advanced Placement Calculus (AB) as prescribed by the College Entrance Examination Board. Students are expected to take the AB exam in the spring when the course concludes. A TI-83 Plus calculator, or the equivalent is required for use in this course. Topics include functions, limits, derivatives and their applications, integrals and their applications, parametric equations, polar coordinates, and infinite series. The philosophy and goals of Advanced Placement Calculus will set the direction for the entire course. The Rule of Four will be used to develop students' understanding of the concepts of calculus. The Rule of Four is shorthand for the multi representational approach to mathematics that encourages all the topics, results and discussion be done verbally, analytically, numerically and graphically. Some topics from the BC syllabus will be covered, but preparation for the (AB) AP Calculus exam will be given. **Students should have successfully completed Pre-Calculus. Recommendation of teacher required**

#### **Level 1**

**410203**

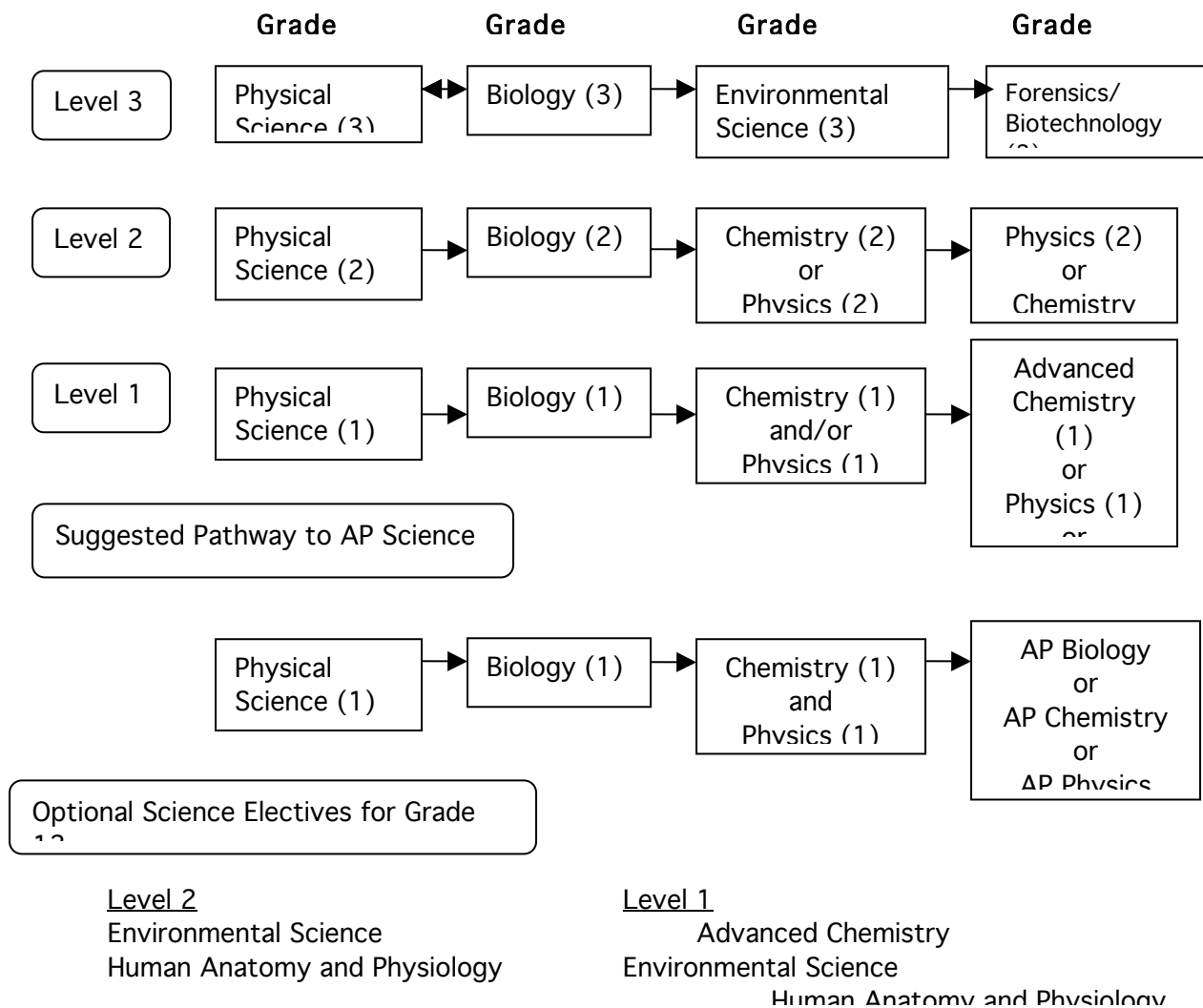
This course is organized and presented specifically for the high school senior. It will begin with a review of number theory, linear & quadratic functions, trigonometric functions & conics. All standard topics of elementary calculus will be covered, including limits, continuity, techniques of differentiation and integration. Differential equations will be applied to the solution of practical problems regarding maxima, minima, rates of change, and motion. Integration will be applied to problems of area and volume. Graphing calculators are necessary for this course. **Students should have successfully completed Pre-Calculus.**

# SCIENCE

## SCIENCE PROGRAM

The science program offers strong traditional core science courses such as Physics, Biology, and Chemistry. Offered electives include Environmental Science, Forensics/Biotechnology, Human Anatomy and Physiology, Science Review, AP Chemistry, AP Biology, and AP Physics. Colleges and universities traditionally consider Physics, Biology, and Chemistry as single-discipline lab courses serving as the foundation of any science program. All full-time science courses are lab courses and meet 7 periods per cycle, except AP Classes which meet for 12 periods per cycle.

## Suggested Science Course Sequence



### Science Course Level Expectations:

**Tech Prep/Level 3:** Students electing these courses will cover the SBRHS core curriculum. Courses will be taught in a manner to prepare them for science classes at a two year college or technical program. Assignments and assessments will be similar to level 2; however, the pace of the course will be slower and will include more adaptations and modifications to meet the needs of the student.

**College Prep/Level 2:** Students electing these courses will cover the SBRHS core curriculum. Courses will be taught in a manner to prepare them for science classes at a traditional four year college or university. Assignments and assessments will be similar to level 1; however, the pace of the course will be moderate and include analytical reading and writing assignments, independent

projects, and self-directed learning experiences that are designed in accordance with the needs of the student.

**Honors/Level 1:** Students electing these courses will cover the SBRHS core curriculum. Courses will be taught in a manner to prepare students for Honors programs at a traditional four year college or university. Pacing for the course will be accelerated, and students will be held to high expectations. Students in this level will be prepared for advanced and AP courses. Assignments and assessments will be given that will require independent research and work habits. Critical thinking, analytical reading and writing skills are criterion for success at this level.

**Advanced Placement/Level 9:** In addition to following the expectations for students in the Level 1 program, students electing this level are taking courses designed to offer rewarding academic experiences to highly motivated and mature students, in various science disciplines. Students enrolling in the advanced placement program must have a strong foundation in the core curriculum subjects of math, biology, chemistry, and physics. **REQUIREMENT FOR ALL AP SCIENCES: a summer project needs to be completed by the first week of the program. All students enrolled in AP courses must take the appropriate Advanced Placement Examination and are responsible for the fee.**

## **COURSE OFFERINGS:**

### **Physical Science**

#### **Grade 9**

##### **Level 1**

**110104**

This accelerated course is a conceptual study of motion, forces, energy, momentum, heat and heat transfer, waves, electromagnetism, and electromagnetic radiation with a focus on the basic principles of physics. This course is devoted to imparting a sound foundation in the areas of measurement, laboratory techniques and the analysis of experimental data.

**Students should have a minimum average of B+ in level 1 Math and Science in grades 7 & 8.**

##### **Level 2**

**120104**

This course is a conceptual model that involves the study of motion, forces, energy, momentum, heat and heat transfer, waves, electromagnetism, and electromagnetic radiation along with the basic principles of chemistry. This program gives students experience in measurement and observation, basic laboratory skills, and analysis of experimental data.

##### **Level 3**

**130104**

This course is structured to provide coverage in the basic principles of physics and chemistry which include motion, forces, energy, momentum, heat and heat transfer, waves, electromagnetism, and electromagnetic radiation. Emphasis is placed on thinking and study skills and the basics of measurement and laboratory skills and techniques.

### **Biology**

#### **Grade 10**

##### **Level 1**

**210104**

This accelerated lab course encompasses a comprehensive study of biological concepts with an emphasis on investigation and inquiry. Much consideration is given to the cellular and biochemical approach to the study of the processes of organisms. Major topics include biochemistry, cellular biology, anatomy and physiology, evolution, genetics and ecology. Enrichment is provided whenever possible. **An intensive, self-paced summer assignment (which will count as one lab grade in term 1) and an experimental research project is mandatory in this course. Students should have a minimum average of B+ in Physical Science.**

##### **Level 2**

**220104**

This is a college prep lab course, which encompasses a comprehensive study of biological concepts with an emphasis on investigation and inquiry. Major topics include biochemistry, cellular biology, anatomy and physiology, evolution, genetics and ecology.

##### **Level 3**

**230104**

The basis of this lab course is the comprehensive study of fundamental biological concepts. Topics to be discussed include biochemistry, cellular biology, anatomy and physiology, evolution, genetics and ecology.

### **Chemistry**

#### **Grade 11, 12**

##### **Level 1**

**310204**

This lab course is an in-depth study of the principles of chemistry. The curriculum, which is aligned with the Massachusetts Curriculum Frameworks, includes such topics as atomic structure, chemical bonding, chemical and nuclear reactions, stoichiometry, acids and bases, gas laws, and thermo-chemistry. A variety of experiments are performed and the data analyzed to reveal scientific patterns that enhance the students learning experience. **Students should have a strong background in Algebra.**

##### **Level 2**

**420204**

This college preparatory lab course studies the principles of chemistry. The curriculum for this course, developed from the Massachusetts Curriculum Frameworks, includes but is not limited to the properties of matter, atomic structure, periodic trends and properties, chemical bonding, chemical and nuclear reactions, and stoichiometry. An integral part of the program, the various laboratory experiences enhance and support the chemical concepts being studied. **Students should have a fundamental understanding of Algebra.**

## **Advanced Chemistry**

### **Grade 12**

#### **Level 1, 12 periods per cycle**

**410204**

Advanced chemistry is a second-year course that covers topics normally included in a first-year college chemistry course. Accordingly, the course is a progression of topics that are more in-depth than the first year course. Because some of the content requires challenging mathematical problem-solving, it is suggested that students have a strong background in algebra. The laboratory investigations provide students with experience in chemical techniques and the use of computer-based instrumentation. Most of the labs are college-level exercises that would provide students with valuable experience. Each student who successfully completes this course will have an excellent foundation in chemistry. This course and AP Chemistry will be combined into one classroom. Assessments for the Level 1 students will be appropriate for a second year of high school chemistry.

## **Physics**

### **Grades 11, 12**

#### **Level 1**

**310304**

This lab program represents a challenging physics curriculum designed for the honors student. It serves as both an informative physics course and as an excellent foundation for further work in mathematics, science, or engineering. Areas of emphasis include the study of kinematics, dynamics, electricity and, time allowing, magnetism, light and atomic structure. **Students should have successfully completed Algebra II.**

#### **Level 2**

**420304**

This is an algebra-based physics lab course designed for students preparing for college. It investigates the science of energy covering topics such as mechanics, thermodynamics, electricity, magnetism and optics. The development of skills and thought processes are stressed especially in the areas of experimentation and problem solving. **Students should have successfully completed or be concurrently enrolled in Algebra II.**

## **Environmental Science**

### **Grade 11**

#### **Level 3**

**330504**

Using diverse teaching and assessment methods, juniors who have had Physical Science and Biology, will be afforded the opportunity to utilize information they have previously attained in their science and math classes and apply that knowledge to this interdisciplinary science. The course focuses on the scientific method, environmental laws, environmental problems and Earth as a system. Students will also concentrate on biodiversity, ecology, energy, and human impact on the environment. This class will encourage students to develop critical thinking, and field science skills. The theoretical aspect is taught in the classroom while the fieldwork applies its theory outdoors, as well as, in community service learning projects. **Students should have a working background in math and science.**

## **Human Anatomy and Physiology**

### **Grade 12**

#### **Level 1**

**410404**

This challenging course is designed for the honors student. The accelerated, comprehensive curriculum will familiarize students with the anatomy, physiology, and histology of the human organ systems. Students interested in biology, pre-medical, or pre-dental college programs should consider taking this course. **Students should have a strong background in math and science.**

#### **Level 2**

**420404**

The primary role of this college preparatory course is to familiarize students with the structure and function of the organ systems of the human body. It is designed for those interested in working in nursing, physical education and health-related professions. **Students should have successfully completed courses in both Biology and Chemistry.**

## **Environmental Science**

### **Grade 12**

#### **Level 1**

**410504**

The primary role of this lab oriented course is to allow seniors the advantage of utilizing information they have previously attained in their physical science, biology, and math classes and apply that knowledge to this interdisciplinary science. The course focuses on the scientific method, environmental laws, environmental problems and ecology. Students will also concentrate on biodiversity, energy, waste, water, air, and soil testing. This class encourages and enhances the students' extended field science skills and knowledge. The theoretical aspect is taught in the classroom while the fieldwork applies its theory outside, as well as, through community service learning projects. **Students should have an advanced background in math and science.**

#### **Level 2**

**420504**

The primary role of this lab oriented course is to allow seniors the advantage of utilizing information they have previously attained in their physical science, biology, and math classes and apply that knowledge to this interdisciplinary science. The course runs concurrently with the Level 1 Environmental Science course. Using modified assignments and assessments, students will focus on

the scientific method, environmental laws and problems , ecology, energy, and human impact on the environment. This class encourages and enhances the students' extended field science skills and knowledge. The theoretical aspect is taught in the classroom while the fieldwork applies its theory outside, as well as, through community service learning projects. **Students should have a strong background in math and science.**

## **Forensics/Biotechnology**

### **Grade 12**

#### **Level 3**

**430604**

This course encompasses a comprehensive study of the principals of Forensic Science, as well as the study of several selected topics in the field of Biotechnology. Students will utilize methods of investigation, observation and deductive reasoning to apply Forensic Science to laboratory experience and crime scene analysis. Forensic Science topics include: Crime Scene Investigation, Physical Evidence, Serology, Toxicology, Fire Science, Anthropology and Computer Forensics. Biotechnology topics include: DNA Science, Medical Biotechnology, Industrial Biotechnology, Agricultural Biotechnology, and Environmental Biotechnology. This elective will prepare students for further study in such fields as: Criminal Justice, Forensic Technology, and Biotechnology.

## **ADVANCED PLACEMENT OFFERINGS**

### **Grade 12, Level 9 (12 periods per cycle)**

#### **ADVANCED PLACEMENT Biology**

##### **Level 9**

**490104**

The advanced placement biology course is a certified College Board course which follows the A.P. Biology curriculum established by the College Board. Students will be provided the opportunity to experience laboratory skills comparable to introductory college level Biology courses, including inquiry-based labs and computerized data acquisition and analysis. This class requires learning at an accelerated pace due to the amount and complexity of the required material. Material will be covered through daily class activities, lectures, discussions, laboratories, and independent projects. A student's success will depend on the time and effort that is invested into this course. Students enrolling in the Advanced Placement Biology course should have a strong foundation in biology and chemistry. It is also recommended that students in this course also take level 1 Anatomy and Physiology. This course is designed to prepare students for the College Board A.P. Biology exam.

#### **ADVANCED PLACEMENT Physics**

##### **Level 9**

**490304**

The advanced placement physics course is a certified College Board course that represents the equivalence of a first-year college course. Students should have an excellent background in algebra, trigonometry, and should have a basic understanding of calculus, which should be taken concurrently. The major topics of study will include mechanics and electricity and magnetism. All labs are college level labs that reinforce the ideas presented in the lecture. A lab notebook is required for all laboratory entries. Upon completion of this course, all students will have an excellent background in physics. This course is designed to prepare students for the College Board A.P. Physics Mechanics C exam.

#### **ADVANCED PLACEMENT Chemistry**

##### **Level 9**

**490204**

The advanced placement chemistry has been designed and certified to be equivalent to a first-year college chemistry course. Accordingly, the course is a progression of topics which are conceptually and sometimes mathematically challenging. A workable knowledge of algebra/trigonometry is strongly recommended. The laboratory investigations provide students with experience in chemical techniques and the use of instrumentation. All the required labs are college-level exercises that require intensive analysis and discussion. Each student who successfully completes this course will have an excellent foundation in chemistry. It is suggested that all students interested in taking AP Chemistry successfully complete a physics course in the prior school year. This course is designed to prepare students for the College Board A.P. Chemistry exam.

## **Science Department Part-time Course**

### **Science Review**

#### **Grades 9-12**

##### **1 period per cycle**

**500104**

This mini course is offered based on student need in the fall and spring semester to students who need to pass the Massachusetts Comprehensive Assessment (MCAS) in science and/or require remediation in their science course(s). It is designed to aid students to pass their science class, MCAS exam and achieve the graduation requirement of attaining a passing score on the science MCAS. No credit is awarded for this class.

# WORLD LANGUAGES

In order to satisfy most college's entrance requirements for foreign languages, a student should take at least two consecutive years of study (three and four years are preferable in the eyes of admissions counselors) in one of the following languages that offer a full sequence of courses: **French, Spanish or Portuguese.**

## **COURSE OFFERINGS: Available to all grades**

### **French Courses**

#### **French I**

##### **Levels 1, 2**

**110102, 120102**

Much attention is given to pronunciation, the alphabet and sound system. Students are encouraged to communicate in the language at levels appropriate to their knowledge and ability. Basic skills in listening, reading, and writing are introduced. Ancillary materials are presented to foster an understanding of peoples and cultures. Critical thinking skills are emphasized. When choosing a level 1 class, it is important to understand that the class will move at a quicker pace. It is also important to note that the students in a level 1 course are expected to perform at mastery level with regards to grammar, application, and fluency.

#### **French II**

##### **Levels 1, 2**

**210102, 220102**

Greater attention is given to the spoken language, with continued emphasis on listening, translating, learning grammatical patterns and developing better reading comprehension skills. Paragraph writing is introduced and short oral presentations are assigned. When choosing a level 1 class, it is important to understand that the class will move at a quicker pace. It is also important to note that the students in a level 1 course are expected to perform at mastery level with regards to grammar, application, and fluency.

#### **French III**

##### **Levels 1, 2**

**310102, 320102**

Basic grammar presentations are completed. Communication skills continue to be emphasized in more demanding, situational settings. Students deal with more complex and lengthy writing assignments. Readings from outside sources are occasionally introduced. When choosing a level 1 class, it is important to understand that the class will move at a quicker pace. It is also important to note that the students in a level 1 course are expected to perform at mastery level with regards to grammar, application, and fluency.

#### **French IV**

##### **Levels 1, 2**

**410102, 420102**

Detailed and sophisticated grammatical items are presented. Comprehension skills are emphasized in the context of current events as well as from the works of traditional authors. Communication skills are stressed through longer student presentations. When choosing a level 1 class, it is important to understand that the class will move at a quicker pace. It is also important to note that the students in a level 1 course are expected to perform at mastery level with regards to grammar, application, and fluency.

### **Portuguese Courses**

#### **Portuguese I**

##### **Levels 1, 2**

**110302, 120302**

Much attention is given to pronunciation, the alphabet and sound system. Students are encouraged to communicate in the language at levels appropriate to their knowledge and ability. Basic skills in listening, reading, and writing are introduced. Ancillary materials are presented to foster an understanding of peoples and cultures. Critical thinking skills are emphasized. When choosing a level 1 class, it is important to understand that the class will move at a quicker pace. It is also important to note that the students in a level 1 course are expected to perform at mastery level with regards to grammar, application, and fluency.

#### **Portuguese II**

##### **Levels 1, 2**

**210302, 220302**

Greater attention is given to the spoken language, with continued emphasis on listening, translating, learning grammatical patterns and developing better reading comprehension skills. Paragraph writing is introduced and short oral presentations are assigned. When choosing a level 1 class, it is important to understand that the class will move at a quicker pace. It is also important to note that the students in a level 1 course are expected to perform at mastery level with regards to grammar, application, and fluency.

### **Portuguese III**

#### **Levels 1, 2**

**310302, 320302**

Basic grammar presentations are completed. Communication skills continue to be emphasized in more demanding, situational settings. Students deal with more complex and lengthy writing assignments. Readings from outside sources are occasionally introduced. When choosing a level 1 class, it is important to understand that the class will move at a quicker pace. It is also important to note that the students in a level 1 course are expected to perform at mastery level with regards to grammar, application and fluency.

### **Portuguese IV**

#### **Levels 1, 2**

**410302, 420302**

Detailed and sophisticated grammatical items are presented. Comprehension skills are emphasized in the context of current events as well as from the works of traditional authors. Communication skills are stressed through longer student presentations. When choosing a level 1 class, it is important to understand that the class will move at a quicker pace. It is also important to note that the students in a level 1 course are expected to perform at mastery level with regards to grammar, application and fluency.

### **Portuguese V**

#### **Level 1**

**510302**

Creative use of the knowledge previously acquired by the student is stressed. More intricate grammatical constructions are introduced. Oral assignments and presentations are lengthened, as are writing assignments in the target language. Literary works by critically acclaimed authors are introduced to prepare the student for future college-level work. When choosing a level 1 class, it is important to understand that the class will move at a quicker pace. It is also important to note that the students in a level 1 course are expected to perform at mastery level with regards to grammar, application and fluency.

## **Spanish Courses**

### **Spanish I**

#### **Levels 1, 2**

**110402, 120402**

Much attention is given to pronunciation, the alphabet and sound system. Students are encouraged to communicate in the language at levels appropriate to their knowledge and ability. Basic skills in listening, reading, and writing are introduced. Ancillary materials are presented to foster an understanding of peoples and cultures. Critical thinking skills are emphasized. When choosing a level 1 class, it is important to understand that the class will move at a quicker pace. It is also important to note that the students in a level 1 course are expected to perform at mastery level with regards to grammar, application and fluency.

### **Spanish II**

#### **Levels 1, 2**

**210402, 220402**

Greater attention is given to the spoken language, with continued emphasis on listening, translating, learning grammatical patterns and developing better reading comprehension skills. Paragraph writing is introduced and short oral presentations are assigned. When choosing a level 1 class, it is important to understand that the class will move at a quicker pace. It is also important to note that the students in a level 1 course are expected to perform at mastery level with regards to grammar, application and fluency.

### **Spanish III**

#### **Levels 1, 2**

**310402, 320402**

Basic grammar presentations are completed. Communication skills continue to be emphasized in more demanding, situational settings. Students deal with more complex and lengthy writing assignments. Readings from outside sources are occasionally introduced. When choosing a level 1 class, it is important to understand that the class will move at a quicker pace. It is also important to note that the students in a level 1 course are expected to perform at mastery level with regards to grammar, application and fluency.

### **Spanish IV**

#### **Levels 1, 2**

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Detailed and sophisticated grammatical items are presented. Comprehension skills are emphasized in the context of current events as well as from the works of traditional authors. Communication skills are stressed through longer student presentations. When choosing a level 1 class, it is important to understand that the class will move at a quicker pace. It is also important to note that the students in a level 1 course are expected to perform at mastery level with regards to grammar, application and fluency.

### **Spanish V**

#### **Level 1**

**510402**

Creative use of the knowledge previously acquired by the student is stressed. More intricate grammatical constructions are introduced. Oral assignments and presentations are lengthened, as are writing assignments in the target language. Literary works by critically acclaimed authors are introduced to prepare the student for future college-level work.

## **BUSINESS TECHNOLOGY**

Courses offered in Business Technology are designed to introduce students to various career paths in Business Administration, Office Administration, Computer Information, Computer Science Engineering, and others. Articulation agreements with Bristol Community College are being reviewed and may offer students credit for courses taken at Somerset Berkley Regional High School. These courses are designated as **CVTE** – Career Vocational Tech Ed

Technology courses offered 6 periods per cycle fulfill the technology requirements for graduation.

### **COURSE OFFERINGS:**

#### **Business Marketing Foundations (DECA)**

**Grades 10 - 12**

**Levels 1, 2**

**610705, 620705**

This course will concentrate on the study of the definitive marketing functions of selling, promotion, distribution, risk management, pricing, purchasing, marketing information management & research, product & service planning and financing. In doing so, economic foundations, business and marketing foundations as well as human resource foundations will be applied and stressed throughout instruction. Level 1 students will also be required to submit a M.L.A. formatted research paper every quarter on various business related topics of theory and practice as well as individual case study analysis. Integrated DECA competencies for competitive events are designed around the (NBEA) National Business Education Association frameworks and functions of marketing leading to college scholarships. 21<sup>st</sup> century skills and frameworks are an integral part of the program of applied learning.

#### **Principles of Business Management (DECA)**

**Grades 10 - 12**

**Levels 1, 2**

**610805, 620805**

This course provides the student with a broad overall viewpoint of universal business operations as well as the art and science of management itself in regard to planning, organizing and controlling various activities and factors related to the private and public sectors. Areas of study will include the business environment, forms of ownership and the law, information and communication systems, production, marketing, financial, and human resources management as well as various aspects of managerial styles, leadership and decision making abilities. Level 1 students will also be required to submit a M.L.A. formatted research paper every quarter on various business related topics of theory and practice as well as individual case study analysis. Students are given an opportunity to participate in the DECA competencies based on NBEA standards for competitive events leading to college scholarships. 21<sup>st</sup> century skills and frameworks are an integral part of the program of applied learning.

#### **Financial Accounting Fundamentals (DECA)(CVTE)**

**Grades 10 - 12**

**Levels 1, 2**

**610405, 620405**

This course is designed to introduce the student to the study of financial accounting by way of utilizing the multi-column journal approach. Accounting as it relates to the three forms of business ownership, namely; proprietorships, partnerships and corporations will be analyzed. Business start-up, journalizing transactions, posting to subsidiary and general ledgers, payroll accounting, taxes and reports, recording adjusting and closing entries, trial balances as well as financial statements such as Income Statements and Balance Sheets will be some of the topics covered. Level 1 students will also be required to submit a M.L.A. formatted research paper every quarter on various business related topics of theory and practice as well as individual case study analysis. Additionally, personal income tax preparation will be analyzed through use of computerized software. 21<sup>st</sup> century skills and frameworks are an integral part of the program of applied learning.

#### **Business and Personal Finance (DECA)(CVTE)**

**Grades 10 - 12**

**Levels 2, 3**

**620205, 630205**

This course of study is designed as a prequel to Accounting, Management and Marketing following NBEA standards. Students are engaged in the study of personal financial planning, banking and credit, investing financial resources, protecting personal finances, an introduction to business finance as well as organizational financial planning. Students are engaged in cooperative learning through groups and in the development of financial planning guides. Online Internet activities will allow reinforcement of skills learned. Technology tools used include financial planning software, PowerPoint presentations and virtual business simulations. 21<sup>st</sup> century skills and frameworks are an integral part of the program of applied learning. This course does not fulfill MCAS EPP math requirements. Level 3 students are allowed more time to complete assignments.

## **Business Communications**

### **Grades 10-12**

#### **Levels 2, 3**

**620605, 630605**

The course content includes the following topics: choosing a career, preparing for an interview, mock interviews, communication skills necessary in the business world, writing letters of application, follow-up letters, oral presentations, composing professional resumes and related topics. Computer access to word processing allows students to complete necessary tasks to develop a career portfolio. Students also are exposed to current trends in business and global economies. The internet is used for career exploration and research. 21<sup>st</sup> century skills and frameworks are an integral part of the program of applied learning. Level 3 students are allowed more time to complete assignments.

## **Microsoft Office Professional (CVTE)**

### **Grades 9-12**

#### **Levels 1, 2, 3**

**611105, 621105, 631105**

This course is designed to develop students' technology literacy skills to support student achievement in all content areas. Students will learn how to use Microsoft Office (Word, Excel, Access, PowerPoint) and Web 2.0 tools, such as Google Apps and electronic portfolio tools, to demonstrate their proficiency. Students will explore career interests to include gathering, evaluating and presenting career information using various technology tools. Projects are differentiated to provide enriched extensions for Level 1 students, such as MLA citation in research papers. Level 3 students are allowed more time to complete assignments. This course is aligned to the National Business Education Association (NBEA) standards, Massachusetts Technology Literacy Standards and 21<sup>st</sup> Century Skills. **It is recommended that college-bound students achieve mastery in these skills prior to graduation.**

## **School Store**

### **Grades 9 - 12**

**602205**

Offered full year, 1 to 4 times per cycle (dependent upon study hall schedules) the school store provides hands on training for those students who wish to learn about retail store management operations. Students are introduced to cashiering, product promotion and display, customer sales, inventory and other related situations such as daily cash counts, weekly cash proofs and bank deposits. Moreover, journal and ledger entries as well as financial statement preparation will be integrated with classroom instruction. No previous experience is needed. Students who intend to pursue careers in business and retailing or who are presently engaged in part-time employment and wish to enhance their skills in retail store operations are encouraged to enroll in this course. This school to career path will provide the student with retail store experience that can lead to gainful employment.

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# **ENGINEERING TECHNOLOGY**

## **ENGINEERING TECHNOLOGY EDUCATION 9-12**

The objectives of the High School Engineering Technology Program are to present courses which reflect the four major areas of technology: communication, manufacturing, transportation and construction and to give students basic skills and concepts in these areas in a "learn by doing" approach. Students in all engineering technology classes will be grouped heterogeneously regardless of their year in high school or level of designation.

All students will be expected to demonstrate imaginative, critical and reflective thinking. All students will be expected to demonstrate knowledge and usage of the principles of technology and to analyze and interpret technical literature and engineering drawings as well as works of historical and cultural significance. Students will understand the ethical use and responsibilities associated with technology in the workplace and in their personal lives. Each student will be expected to participate in oral class discussions and presentations, complete written assignments, maintain a portfolio of work, and keep anecdotal records of his or her work.

All Engineering Technology courses meet the curriculum requirements of the Massachusetts Frameworks for Technology and Standards for Technological Literacy and are taught as Level 2 courses. Level 1 students are required to complete assignments showing greater depth of understanding or skill and Level 3 students are given more time to complete their assignments.

**Note: All lab courses may assess fees for take-home products.** All students enrolled in hands on courses in engineering technology will be required to pass a safety exam prior to being allowed to conduct any hands-on work in the labs.

## **COURSE OFFERINGS:**

### **Engineering Design**

**Grades 9 – 12**

**Levels 1, 2, 3**

**610106, 620106, 630106**

Students will examine the steps of the engineering design process and produce original proposals for a variety of design competitions. "Project Based Learning" will be the main instructional strategy throughout this engineering course. This learning model allows students to design, build, test, and evaluate quality products and systems that meet world needs. Required assignments in the areas of Agricultural, Medical, Transportation, Construction, Manufacturing, Energy and Power, Communication, and Bio-related technologies among others provide the 9-12 grade students with an understanding and appreciation of the designed world. Examination of a variety of engineering based occupations is part of this course. The safe use of materials, power tools and machines highlight the student's engineering experience. Development of "Engineering Design" curriculum used the national Standards for Technological Literacy (STL) as published by the International Technology Education and Engineering Association (ITEEA). Our highly qualified teachers are active members in the ITEEA. Note\* **Students selecting Level 1 will complete a required engineering design project and participate in the Somerset-Berkley Regional High School's annual science fair.**

### **Robotic Engineering**

**Grades 9-12**

**Level 1, 2, 3**

**610206, 620206, 630206**

Robotics Engineering provides students opportunity to learn engineering concepts through experience and discovery. Students build, program and design real autonomous robots that can feel, touch and see. Students use hands-on engineering techniques to discover solutions to proposed design challenges and document outcomes in electronic portfolios. Robotics engineering engages students in learning that is both specific in its technological relevance and general in the way that the skills it requires, patience, problem solving, collaboration, communication, carry over to all facets of life and learning. This course is fundamental for students pursuing careers in the field of engineering and design. Level differentiation occurs by varying the complexity of the design challenge in terms of imposed design constraints. Design constraints in Robotics Engineering refer to the limitations on the conditions under which a robot is developed to satisfy a particular need. All students will be expected to develop solutions to challenges with embedded constraints; however, the type and quantity of constraints will differentiate the curriculum requirements for level one, two and three students.

### **Advanced Robotic Engineering**

**Grades 9-12**

**Level 1, 2, 3**

**612206, 622206, 632206**

This course will provide students with an in-depth study of robotics and artificial intelligence. Students will learn to reason critically, analytically and creatively to develop problem-solving skills. Students will engage in sophisticated design challenges and compete in the annual Massachusetts Science Olympiad robotics competition. Using data collection sensors and feedback control systems, students will work in design teams and utilize the engineering design process to conduct research and experiments. Students will demonstrate technological literacy as they use a variety of software to digitize artifacts that represent fulfillment of standards. Advance robotic students will use LabView software and advance (Tetrix) robot building materials. Level differentiation occurs by varying the complexity of the design challenge in terms of imposed design constraints. Design constraints in Robotics Engineering refer to the limitations on the conditions under which a robot is developed to satisfy a particular need. All students will be expected to develop solutions to challenges with embedded constraints; however, the type and quantity of constraints will differentiate the curriculum requirements for level one, two and three students.

### **Graphics Engineering I**

**Grades 9-12**

**Levels 1, 2, 3**

**610306, 620306, 630306**

This introductory course emphasizes exposure to a wide range of computer programs and research techniques for producing quality publications and presentations. Students will work with software programs such as: MS Word, MS Publisher, Adobe Photoshop and MS PowerPoint to design projects that cover business, advertising, and presentation applications. Students will be required to utilize the internet, library and their own personal creative resources as input material for products. Projects will also require students to use the Savin SDC 531 Laser Color Copier and HP Business Jet 1200 Ink Jet printer for scanning and reproducing computer-generated images and text. Bindery and other finish operations will be part of the course objective. Projects will include advertisements, flyers, calendars, business cards, compact disc covers, slide shows and animated presentations. College-bound students and those considering a career in publishing, as well as, students that wish to improve their technology skills for related academic requirements, should consider this course as part of their studies. Students will build and maintain a web-based digital portfolio to showcase their work and be the primary source of assessment. Level 1 students will expand their portfolios to include other classes and school activities as a continuous graphics project throughout the school year.

## **Advanced Graphics Engineering**

**Grades 10-12**

**Levels 1, 2, 3**

**610706, 620706, 630706**

This course is available to students that have successfully completed Graphics Engineering I. The course content reflects authentic 'world of work' activities that exist in the print and digital communications industries. This is a project based course that follows the convention of current 'design to market' manufacturing and communications. Students work in a collaborative setting to produce both printed and digital work. Students will learn to use advanced graphics and video software tools used in commercial video, digital and advertising media including stop motion video production. Students will build and maintain a web-based digital portfolio which will be used to showcase their work and be a primary source of their assessment. Level 1 students will expand their portfolios to include other classes and school activities as a continuous graphics project throughout the school year.

## **Computer Diagnostics and Repair I**

**Grades 9 - 12**

**Levels 1, 2, 3**

**611506, 621506, 631506**

This course will provide students with hands on skills in the diagnosis and repair of personal computers. Students will tear down and rebuild PC systems and diagnose hardware and software problems, install software and solve software conflicts. Students will use diagnostic techniques and tools to evaluate problems, develop solutions, and then implement them in the most appropriate manner. As an integral part of this course, students will develop an understanding of the PC history, where we are today, and where the future may lead and how it impacts their lives through hands on lab work, research projects and class presentations. Computers impact our lives on a daily basis and everyone should know and understand how computers work and what may go wrong, even if they do not want to make the repairs themselves. Level 1 students will be required to do 2-3 additional assignments on their own time in addition to the normal class work **This course can provide introductory skills which will prepare students to pass A+ certification exam for computer repair technicians.**

## **Computer Drafting and Design I**

**Grades 9 – 12**

**Levels 1, 2, 3**

**610506, 620506, 630506**

Students enrolled in this course will learn the basics of Computer Aided Drafting. Students will complete assignments in the areas of single-view, orthographic projection, sectional, auxiliary, and isometric drawing. Additionally, each student will learn how to layout and draw complex floor plans for a house. Students will document progress and demonstrate proficiency via portfolios. Level 1 students will be required to do several additional assignments on their own time in addition to the normal class work. This course is offered as both a fulltime elective (6 periods per cycle) and a part-time elective (3 periods per cycle). **Those students enrolled in the part-time class will need permission of the instructor to enroll in Advanced Computer Drafting.**

## **Advanced Computer Drafting and Design**

**Grades 10 – 12**

**Levels 1, 2, 3**

**610606, 620606, 630606**

Students enrolled in this course will learn the basics of Computer Aided Drafting and Design through mastery of the Rhinoceros program. Using the System Design Model, students will learn to design objects in three dimensions, give the object a surface, and then apply materials, textures, and lighting to those surfaces to give them a lifelike appearance. The student will then render their design giving it realistic real world appearance. In addition, students will use the animation capabilities of the program to animate their creation and create short movie presentations of their designs using various programs. Students will document their progress and development by maintaining a digital portfolio on the internet. Upon completion of this course, the student will be proficient in designing three-dimensional objects and presenting them in the best possible way to prospective clients. As each student increases their skill level and becomes proficient the instructor will assign more complex assignments that the student will be required to complete independently. If a student takes the course multiple times it will culminate in a long term project where the student will be required to hand sketch their design, draw it in 3d, render the model, and then put together a detail portfolio of their project for a perspective client. Level 1 students will be required to do several additional assignments on their own time in addition to the normal class work. **Prerequisite: Computer Drafting & Design I and/or previous Advanced Computer Drafting & Design.**

**\* Note: All Tech Prep and Advanced Tech students must meet level 1 or level 2 requirements.\***

## Engineering Technology Department Part-time Courses

### Intro to Computer Drafting and Design

**Grades 9-12**

**3 periods per cycle**

**623506**

Students enrolled in this course will learn the basics of Computer Aided Drafting. Students will complete assignments in the areas of single-view, orthographic projection, sectional, auxiliary, and isometric drawing. Students will document progress and demonstrate proficiency using digital portfolios. This course is best suited to students who may have an interest in CADD yet prefer the part-time approach to learning the AutoCADD LT engineering software. **Those students enrolled in the part-time class will need permission of the instructor to enroll in Computer Drafting II.**

### Web Page Design

**Grades 9-12**

**3 periods per cycle**

**601806**

Students will explore web page designs by creating pages to serve various marketing functions. After taking this course you will have the skills necessary to design a web site that is easy to use and fulfills the needs of the users. Students will work independently to develop various styles of web sites using programs such as MS FrontPage, MS Publisher, Adobe Dreamweaver, and web based programs. The goal is to create sites that are easy to use, exciting and fulfill the needs of end-users. As part of this course you will also learn to understand the importance of graphic design in web page layouts and the use of animations, video and sound in a web site. Students will be required to develop their own animation for a web site. The course will also encompass presenting and explaining your web site design to the class.

### Intro to Media Production

**Grades 9 – 12**

**3 periods per cycle**

**601906**

Students enrolled in this course will learn the technical elements of video & digital media production. Students will learn how to operate both still and video digital cameras. Successful students will understand the digital media terminology, how to set up a shoot plan, shot set-up, lighting, and image composure. The goal of this class is to provide a hands-on experience with digital cameras (still and video), sound equipment, lighting, editing, subject interviewing, and video production. This will be done through project based activities as each student will be required to create, perform, edit and produce various productions. Through these activities, the student will learn skills that will prepare them for their post-secondary education and enhance career opportunities. Students will document their progress and demonstrate proficiency via digital portfolios. This course is offered as a part-time elective (3 periods per cycle).

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## MUSIC

### Special Classes

Interested students may check with the music department. Private and class lessons on various instruments are given to many students by the music teachers and also by more advanced students. Small ensembles (i.e. string quartets, brass quintets, etc.) may be offered, depending on the availability of the teacher and students.

### Performing Organizations

The following performing organizations exist at Somerset-Berkley Regional High School. Rehearsals and performances for these groups are both in and out of school. **Students will receive course credit for every rehearsal period that the class is scheduled for.** These organizations include performances at some or all of the following: Musictown Festival concerts, Vespers, the Spring concerts, and Music Festivals. Music of various styles is studied for the purpose of enriching the lives of these young people through cooperative individual participation.. All of these organizations encourage the intellectual, musical and social development of the individual through the performance of high-quality music. Students, who wish to participate in the Massachusetts' Music Educator Association (MMEA) Southeast District and Allstate festivals as well as the National Association for Music Education (MENC) festivals, must be a member in good standing of an appropriate school performing organization.

### Concert Band

**Grades 9-12**

**3 periods per cycle**

**60907**

This band is open to all wind and percussion students, grades 9 – 12, who have had at least 2 years of experience playing their instrument. **This class is a pre-requisite for all extra-curricular band/color guard-related ensembles.**

## **Symphonic Wind Ensemble**

### **Grades 9-12**

**3 periods per cycle**

**600807**

This is a select band of students in grades 9 – 12, who have had a at least 2 years of experience playing their instrument. All members must audition for this group in the spring with the Director of Bands. **Students who participate in this ensemble must also participate in the Concert Band.**

## **Orchestra**

### **Grades 9-12**

**3 periods per cycle**

**600707**

This ensemble is open to all string players in grades 9 – 12, who have had a at least 2 years of experience playing their instrument. Wind and percussion players from the Symphonic Winds will be selected to perform with the strings to form a Symphonic Orchestra for select concerts. **This class is a pre-requisite for all extra-curricular band/color guard-related ensembles.**

## **String Ensemble**

### **Grade 9-12**

**2 periods per cycle**

**600407**

This is a select ensemble of string students, grades 9 – 12, who have had a at least 2 years of experience playing their instrument. All members must audition for this group in the spring with the Orchestra Director. **All students who participate in this group must also participate in the Orchestra.**

## **Concert Choir**

### **Grades 9-12**

**4 periods per cycle**

**600507**

This ensemble is open to all ladies in grades 10 – 12, and men in grades 9 – 12. Ladies in grade 9 are open to join provided they are also enrolled in Treble Choir. **9<sup>th</sup> grade ladies must also participate in treble choir. This class is a pre-requisite for all extra-curricular band/color guard-related ensembles & choral ensembles.**

## **Treble Choir**

### **Grades 9-12**

**2 periods per cycle**

**600607**

Membership in this ensemble is elective and is open to all ladies in grades 9 – 12. Ladies in grade 9 are especially encouraged to join. **This class is a pre-requisite for all extra-curricular band/color guard-related ensembles.**

## **Extracurricular ensembles:**

**These ensembles meet after-school or in the evening. All students who wish to participate in these ensembles must be a member in good standing of an appropriate in-school ensemble.**

- 1. Blue Raider Marching Band (Fall Season/ June–December as well as Memorial Day Parade in May.)** This organization is an extracurricular band comprised on horn line (woodwind & brass), color guard, battery percussion and pit percussion. All band students are encouraged to participate. The Marching Band competes at New England Scholastic Band Association (NESBA) marching band competitions, as well as performs at home varsity football games and in local parades during the fall season. **All instrumental members of the Marching Band must be a member in good standing of the Symphonic Wind Ensemble and/or Concert Band; Color Guard members must be a member in good standing of any in-school band, choral or string ensemble.**
- 2. Jazz Band (Full School Year Season/September-June)** Membership in this organization is selective, and open to all students from grades 9-12 through **auditions** given in the spring based on openings in the ensemble. The ensemble rehearses weekly and represents Somerset-Berkley High School at various festivals, competitions, and performance sites during the school day and after school hours throughout the year. **All instrumental members of the Jazz Band must be a member in good standing of the Symphonic Wind Ensemble and/or Concert Band; vocal members must be a member in good standing of any choral ensemble.**
- 3. Winter Percussion Ensemble (Winter Season/December-April)** The Indoor Winter Percussion rehearses weekly from December through April during after school hours and on weekends. The Winter Percussion Ensemble represents Somerset-Berkley Regional High School at New England Scholastic Band Association (NESBA) indoor percussion competitions beginning in February and ending in mid-April;. All competitions are held on Saturdays and Sundays. Woodwind and Brass instrumentalists from other band ensembles are strongly encouraged to participate and learn a new instrument. **All members of the Winter Percussion Ensemble must be a member in good standing of any in-school band, choral or string ensemble.**
- 4. Winter Color Guard (Winter Season/December-April)** The Winter Color Guard rehearses weekly from December through April during after school hours and on weekends. The Winter Color Guard represents Somerset-Berkley Regional High School at New England Scholastic Band Association (NESBA) indoor percussion competitions beginning in February and ending in mid-April;. All competitions are held on Saturdays and Sundays. Woodwind and Brass instrumentalists from other band ensembles are strongly encouraged to participate. **All members of the Winter Color Guard must be a member in good standing of any in-school band, choral or string ensemble.**
- 5. Chorale (Full School Year Season/September-June)** **Chorale** rehearses weekly throughout the school year during after-school hours and represents Somerset-Berkley Regional High School at various festivals and performance sites during the

year. Membership in the ensemble is selective, and open to all students from grades 9-12 through **auditions** given in the spring. This organization provides activities, experiences and performance opportunities similar to those included in other choral activities on a more advanced level. **All members of Chorale must be in good standing in Concert Choir and/or Treble Choir.**

**6. Show Choir (Full School Year/September—June)** "Electrify" Show Choir rehearse weekly throughout the school year during after-school hours, evening hours and on weekends. Membership in the ensemble is selective, and open to all students from grades 9-12 through **auditions** given in the spring. This ensemble provides both singing and dance opportunities in a variety of contemporary genres. The "Electrify" Show Choir represents Somerset Berkley Regional High School at various festivals and competitions beginning in November and ending in mid-April. All competitions are held on Saturdays and Sundays. **All members of the "Electrify" Show Choir must be in good standing in Concert Choir and/or Treble Choir.**

## **COURSE OFFERINGS:**

### **Music of the Theatre**

#### **Grades 9–12**

#### **Levels 1, 2, 3**

**610207, 620207, 630207**

This class meets six times per cycle and is an elective where the primary objective is to expose students to the rich history, heritage and evolution of the American Musical Comedy leading to a vast knowledge of New York's theatrical history from Vaudeville through modern day integrated musicals through the use of audio and visual media. Students will also develop an understanding of the production aspects of the theater world from the points of view of directors, producers and behind-the-scenes technicians. Students will also be required as part of this course to contribute to the Spring Musical Production whether it be during class time or as an extra-curricular participant. No instrumental or choral experience required.

### **Vocal Techniques**

#### **Grades 9–12**

#### **Levels 1, 2, 3**

**611307, 621307, 631307**

This class is designed to provide students with the fundamental techniques of singing well in both solo and ensemble. Music of all styles, periods and cultures will be studied. Students will expand their individual abilities with both solo and class ensemble performances. Students will also develop skills necessary to become an independent musician. The class will be multi-leveled to meet student needs.

### **Music Foundations 2**

#### **Grades 10-12**

#### **Level 1**

**611007**

Music Foundations 2 is a highly demanding elective open only to serious music students in grades 10-12 interested in pursuing a career in music and that have successfully completed Music Foundations 1 or has been approved for this course by a member of the high school music staff. This class will continue advanced studies of music theory, improvisation, arranging, composition, and ear training as well as music history. Students will also research college music programs, prepare portfolios to include with college applications, and prepare for college-level music auditions. Successful completion of this course will result in better-developed performance skills, will provide a student skills needed to compose their own music and help the career driven student musician gain acceptance to a highly regarded undergraduate music program. Multi-year enrollment is open to the discretion of the instructor. **Students should have successfully completed Music Foundations I or receive the recommendation of the teacher based on a music theory skills assessment.**

## **Music Department Part-time Courses**

### **History of Rock 'n' Roll**

#### **Grades 9-12**

#### **3 periods per cycle**

**600107**

The primary objective of this course is to expose students to American popular music in a variety of genres from 1950's pioneering rock 'n' roll to the contemporary genres of today's popular music, leading to an informed understanding of music as an art form. The primary function is to further the development of basic skills (such as structure/song form), broaden musical awareness and to understand how society influences the changing tide of musical styles. This course will explore the role that music plays in our everyday lives and students will be exposed to various media. No instrumental or choral experience required.

### **Piano/Keyboard Lab**

#### **Grades 9-12**

#### **3 periods per cycle**

**601107**

The purpose of this class is to introduce and develop keyboard skills from beginner to intermediate. The class is recommended for Music Foundations and Jazz students as well as any other interested students. Each student may progress at their own speed, working individually and in groups. Included in this class will be the use of current electronic keyboards and electronic equipment,

including sequencers, sound modules, and the Macintosh computer with music software. This class requires no previous experience. Multi-year enrollment is open to the discretion of the instructor

### **Acoustic Guitar Lab I**

**Grades 9-12**

**3 periods per cycle**

**601407**

The purpose of this class is to introduce and develop basic skills for the beginner guitar students. **This class is NOT for experienced guitar players.** The class will focus on music of various styles, chords, scales, riffs and patterns. Students will develop musical reading and study skills necessary for mastery of the instrument. Students will be required to play both solo and ensemble literature. Acoustic guitars are available for student use; however students are encouraged to bring their own acoustic guitar to use in class.

### **Acoustic Guitar Lab II**

**Grades 10-12**

**3 periods per cycle**

**601507**

This class is open to students who have completed Acoustic Guitar Lab I with a grade of B or better, or by audition. This class will further develop the student as a classical guitarist. Students will expand their reading abilities and technique. Ensemble playing will be a large focus of this class. Students must be proficient in reading basic notation to enter this class. Acoustic guitars are available for student use; however students are encouraged to bring their own acoustic guitar to use in class. Multi-year enrollment is open to the discretion of the instructor.

### **Music Production and Engineering**

**Grades 9-12**

**3 periods per cycle**

**600207**

Music Production and Engineering meets three times a cycle and is designed for the student who is interested in music, but may not play an instrument. This class will spend much time exploring the newest forms of digital sound recording and manipulation on the computer through a process called sequencing. We will be investigating on-line resources and working with software programs such as Sonar 4, Audacity, Finale, and Band-in-a-Box to create music without performing on traditional instruments. Students will be creating their own songs from the computer as well as arranging well-known popular, jazz, classical, and folk songs from online midi resources and then recorded on CD's or digital media. In addition to digital audio recording, students will learn about sound production and put those skills to practical use by providing sound engineering and digital recording services for school events, concerts, and drama productions. Playing an instrument or the ability to read music is NOT necessary for this course but it is beneficial.

### **Music Foundations 1**

**Grades 9-12**

**3 periods per cycle**

**600307**

This class is for serious music students interested in pursuing a career in music. This class will cover the basics of music theory, improvisation, arranging, composition, and ear training. This course is designed to enable students with experience in performing music, instrumentally or vocally, to take their musical skills to a higher level. With music theory, students will learn how the combination of melody, harmony, and rhythm develop into music. Ear training will allow them to become a better sight-reader and improviser. These two skills will allow students the ability to compose and arrange their own music. This course is designed as a prerequisite for Music Foundations 2.

## **FINE ARTS**

### **ART PROGRAM**

**Grades 9-12**

**Levels 9, 1, 2, 3**

Everyone possesses an aptitude for and is capable of developing a proficiency in one or more forms of art. Art is essential to the education of all students. Electing art affords the opportunity to develop and use an impressive assemblage of knowledge and skills. It provides extended learning opportunities. Many studies have documented the role of art in improving basic skills of learning areas in the curriculum. Students selecting one or more of the following courses will:

- Acquire and apply essential skills
- Use the arts to express ideas, emotions & beliefs
- Use imaginative, reflective, analytical & critical thinking
- Understand the visual arts in relation to history and culture
- Use technology
- Make connections among the arts and other disciplines

Attitude, interest, commitment and desire will play an important part of each student's success.

**Please Note:** Because of space constraints in art classes, it is necessary to limit the number of classes each student may take

in the Visual Arts Department. Students who are enrolled in more than 1 class must be students planning a career in the arts and/or students who have demonstrated dedication and craftsmanship in studio courses. **Special permission must be acquired from the art department in order to be enrolled in more than one art course.**

## **Art Studio Level Designations**

Grades in studio-based classes are derived from student effort and quality of finished artwork. Student effort grades **are not** governed by levels. **Every** student is expected to work diligently during the entire class time. Finished artworks are graded according to student levels.

### **Level one:**

Artworks are created with care and presented in excellent condition.

Work is rich in detail and highly refined as well as being harmonious, dynamic, and exciting. Student displays deep understanding of design principles, superior use of tools, materials, and techniques. Level one students may be asked to work beyond allotted studio time on studio-based or research projects.

### **Level two:**

Artworks are created with care and presented with proficient execution. Work is detailed and refined but may lack harmony and variety. Student understands and applies design principles and demonstrates solid understanding of the medium being explored through the studio class.

### **Level three:**

Artworks are created with care and presented with acceptable craftsmanship. Student attempts to apply design principles and demonstrates satisfactory understanding of the medium being explored through the studio class.

## **COURSE OFFERINGS:**

### **Art Foundations**

#### **Grades 9, 10**

**614108, 624108, 634108**

Art Foundations is an introductory class for freshman and sophomores. This class will provide the student with a basic introduction to drawing and 2-dimensional and 3-dimensional design. Students will learn basic vocabulary, be exposed to various media, color theory, and drawing from observation. Art movements and artists from history will be integrated throughout the course. An emphasis will be placed on the elements and principles of design. Students will be expected to keep a sketchbook/journal for homework and reflective writing. Portfolios and self-assessments are also required.

### **Ceramics**

#### **Grades 10-12**

**610108, 620108, 630108**

Ceramics students will investigate the potential of clay as a means of discovering strengths, personal sensibilities and giving expression to a new range of experiences. The focus of this course is to master throwing on the potters' wheel while providing a foundation in a variety of processes including hand building, modeling, and glazing. Some assignments will be supported by art historical introduction and discussions centered on contemporary ceramic artists

### **Drawing & 2-Dimensional Design**

#### **Grades 10-12**

**611208, 621208, 631208**

Drawing I will teach basic techniques of drawing and painting with an emphasis on the elements and principles of design. Through the completion of a series of sequential projects, students will strengthen their ability to draw and paint expressively while using basic formal techniques. Students will achieve a greater understanding of the elements and principles of design through contour drawing, value studies, color theory, perspective, and printmaking.

### **Jewelry, Metals, and Stained Glass**

#### **Grades 10-12**

**612108, 622108, 632108**

The first year in this course provides students with a foundation in the studio disciplines of jewelry/metals and stained glass. Students receive instruction through a series of hands-on, sequential assignments that focus on design fundamentals as well as basic fabrication skills and techniques. Students will achieve a greater understanding of craftsmanship while creating original works in each discipline. The course is divided into two units of study: terms one and two focus on the study of metalsmithing and jewelry making while terms three and four investigate the discipline of stained glass.

### **Sculpture**

#### **Grades 10-12**

**613108, 623108, 633108**

This course will teach basic sculptural concepts and procedures. Through hands-on projects as well as study of the methods and processes of historical and contemporary sculptors, students will create projects based on their own ideas as well as concepts inspired by known artists. Through a series of additive, subtractive and replacement sculptures **using paper, wire, found objects and soapstone**, students will build their understanding of the elements and principles of design as applied to a three-dimensional medium.

## **Advanced Ceramics**

**Grades 11, 12**

**610508, 620508, 630508**

**Second Year of Study:** In this course students will develop more advanced technical skills with an emphasis on critical thinking, problem solving, creativity and design. In addition, second year students will be given an introduction to glaze formulation and kiln firing. **Students must have an average of B- or higher in Ceramics I in order to advance.**

**Third Year of Study:** This course requires more advanced expressive and technical skill with a focus on personal exploration supported by topical discussions of contemporary and historical ceramics. During this year of study, students are expected to create a body of work that is unified in direction, significant in degree of growth, innovative in its solutions and personal in expression. **Students must have an average of B- or higher in Advanced Ceramics in order to advance.**

## **Advanced Drawing**

**Grades 11, 12**

**611508, 621508, 631508**

**Second Year of Study:** Drawing & 2-Dimensional Design II will be a sequential extension of and build upon the basic techniques of drawing, painting and printmaking. Through the completed assigned problems, students improve in their ability to draw, paint and produce prints expressively or through observation using learned formal techniques. Students will also strive to achieve a greater understanding of the elements and principles of design through progressively more difficult and challenging applications of design, drawing, value and tonal studies, color theory, perspective and basic printmaking techniques. Critique and discussion of a variety of artists' work will be an integral part of the course. **Students must have an average of B- or higher in Drawing.**

**Third Year of Study:** This course of studio study is the culmination of two prior years of sequential creative experiences in the areas of drawing and two-dimensional design. Students in advanced drawing will continue their artistic development and growth by becoming more intimately involved in the decisions governing the direction and goals of their artistic production. The course encourages students to involve themselves in both long and short-term studio problems and experiences, as well as in depth research of artists, cultures and stylistic movements of both historic and contemporary significance. The scope, sequence and specific nature of their concentration and artistic production will be determined jointly by the instructor and student. The specific goals and objectives for the course will be directly dependent upon the unique artistic, personal and educational intentions and needs of each student enrolled in the program. Personal reflection, self-examination and critique will regularly assess and evaluate student progress and achievement throughout the process. **Students must have an average of B- or above in Advanced Drawing.**

## **Advanced Jewelry, Metals, and Stained Glass**

**Grades 11, 12**

**612508, 622508, 632508**

**Second Year of Study:** The second year in this course continues to engage students in the study of jewelry metals and/or stained glass. The intent of this course is to assist students in building upon the basic skills and techniques learned during the first year of study. This goal is accomplished through the completion of sequential assignments which explore more sophisticated applications and techniques. Students may choose to create works in either metal or stained glass for the duration of the four terms or divide the year into two units of study. In the second year of study, students take a more active role in determining the direction of their work in terms of material, design, and functionality. **Students must have an average of B- or above in Jewelry, Metals, and Stained Glass.**

**Third Year of Study:** The third year of study requires a thorough understanding of the skills and techniques investigated during the prior two years of study. In the third year, students are expected to work more independently in developing and executing works which demonstrate a rich understanding of concept, design, and craftsmanship. Students will continue to develop advanced technical skills while creating a cohesive body of work in either metal or stained glass. An emphasis will be placed on research of significant historical and contemporary artists and trends as well as issues facing the working artist. **Students must have an average of B- or above in Advanced Jewelry, Metals, and Stained Glass.**

## **Advanced Sculpture**

**Grades 11, 12**

**613508, 623508, 633508**

**Second Year of Study:** This course will build upon sculptural concepts and procedures learned in Sculpture I. Materials used and concepts explored in assignments will increase in the level of sophistication and complexity. Through hands-on projects as well as study of the methods and processes of historical and contemporary sculptors, students will again create projects based on their own ideas, as well as concepts inspired by known artists. Through a series of additive, subtractive and replacement sculptures, students will refine their understanding of the elements and principles of design as applied to a three-dimensional medium. **Students must have an average of B- or above in Sculpture I**

**Third Year of Study:** In the third year, of Advanced Sculpture, students will be expected to work more independently on a body of work of the student's choice. Using references of historical and contemporary sculptors, students will select subject matter and materials to explore in depth, culminating in a series of works both technically advanced and personally expressive. **Students must have an average of B- or above in Advanced Sculpture.**

## Art History

### Grades 10, 11, 12

610608, 620608, 630608

The purpose and goal of Art History is to provide another avenue or medium to study the people rather than the events that compose history. Viewing, interpreting and understanding an individual work of art allows us the opportunity to understand the larger context which produced it. Art History allows for the study of varied races and cultures of people, both ancient and modern. Through understanding the motivations and concerns of others, we come to a fuller understanding of ourselves. A work of art is a physical link to the past and the hand that made it an artifact. Art History allows the opportunity for aspiring artists to view and understand the far-reaching history of human creativity. It serves as inspiration and a guide for young artists by introducing works and theories that must be interpreted and then either accepted or rejected. The History of Art establishes a vocabulary and context into which contemporary work can be placed and compared. Somerset-Berkley Regional High School's **Art History** course is a traditional survey course which introduces students to art and cultures spanning from prehistory to the modern world.

## Art Department Part-time Electives

### Digital Photography

#### Grades 10-12

#### 3 periods per cycle

605105

In this course, students will learn the functions of a digital camera, and explore concepts for composing and creating photographs in art and design. Students will photograph a range of subject matter and ideas, **as well as use the classroom lighting studio to create portraits. In addition, students will learn basic photo editing techniques, and create a digital portfolio of their work.** This course will culminate in the creation of a photo essay of the student's choosing. This course will require significant photography work outside the classroom. **Students must provide their own digital camera.**

### Advanced Digital Photography

#### Grade 12

#### 3 periods per cycle

605205

In this course, students will build upon knowledge from Digital Photo I, while also learning to manipulate photos in Creative Suite Programs such as Photoshop and Illustrator. Students will learn advanced techniques with the digital camera as well as complete assignments comparable to tasks encountered in the professional art and design fields. Students must provide their own digital camera. **Students should have an average of B- or better in Digital Photography.**

### AP Art Studio

#### Grade 12 (Grade 11 with permission of the instructor)

#### 3 periods per cycle (must be taken in conjunction with an Advanced Studio Art course)

690207

The AP Studio Art program is designed for highly motivated advanced art students who are seriously interested in the practical experience of art. Students will work throughout the year on a portfolio that will be evaluated by the Advanced Placement College Board. This course will require a significant commitment both in and out of the classroom, and previous training in their area of concentration. The student will concentrate on 2-Dimensional Design, Drawing, or 3-Dimensional Design. Students who elect the AP Studio Art will sign up for an advanced course in their chosen area (Sculpture, Ceramics, Drawing/Design), as well as the AP Studio Art class. Interested students will go through an evaluative process on a letter of intent, portfolio review and teacher recommendation. Students accepted into this program will be expected to do independent work over the summer and maintain a sketch book/journal. Students who do not complete the required summer work or attend meetings will not be a part of the AP Studio Art class in the fall. For additional information, students should contact Mrs. Troutman. **Students should have a B+ or better in their area of concentration.**

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## WELLNESS

### Graduation Requirements

#### Health I

##### Grade 9

#### 2 periods per cycle (1 semester)

160110

Health I is a **required** course for all 9th grade students. The major objective is to prepare all students to become more informed and responsible members of the Somerset Berkley Regional High School community. Areas discussed include: social and emotional health issues, suicide, teen depression, stress management, reproductive anatomy, physiology and current issues including the prevention of sexual violence and disease. Waivers for this course are available on request.

## Health II

### Grade 11

#### 2 periods per cycle (1 semester)

360110

Health II is a **required** course for all 11th grade students. The major objective is to help prepare students to become informed, responsible adults regarding their health, behaviors, issues and choices. Topics include: social and emotional issues, body image, grief, sexuality issues especially those dealing with decision-making, violence and society. Waivers are available upon request.

## Physical Education - 2 periods per cycle

Physical Education is a required course for all Somerset-Berkley Regional High School students. Every student must pass 4 years of physical education. Physical education is an integral part of the school curriculum. The goal is to prepare students for a productive and healthy life through the presentation of units of study on fitness, wellness, activities, and lifetime sports. **A complete change of clothing (proper gym attire) is required for all classes.**

## Physical Education Program of Study

### Grade 9

160109

Freshmen will begin their physical education experience with a focus on fitness and weight training in term 1. They will then be given the opportunity to select from a competitive or non competitive activity for each unit.

### Grade 10, 11, 12

260109, 360109

Upper classmen will be given the opportunity to select from a competitive or non competitive activity for each unit

## Wellness Electives – Full Year

## Life Management Skills

### Grades 9, 10

#### 3 periods per cycle

160113

This exploratory class will introduce students to basic skills related to personal and family care, including overall health and personal responsibility. Social, emotional and mental health issues as well as nutrition and fitness will be studied. Kitchen safety and sanitation issues are discussed along with the opportunity for students to practice cooking skills through the preparation of simple meals and snacks. Additional topics include: consumerism, food label reading, organizational skills, interpersonal skills, communication skills, interview and job skills, etiquette, and basic household budgeting.

## Food, Nutrition and Consumerism

### Grades 10-12

#### Level 2

220213

This course is designed for students who have a genuine interest in food cuisines, customs and its nutritional values. Students will be exposed to a wide range of foods through research, demonstrations, preparation and related activities, while continuing to develop an understanding of My Plate/US Dietary Guidelines and its relationship to food selection. Areas of study include: basic nutrition, kitchen safety and sanitation, cooking terminology, preparation techniques, comparative food shopping and analysis of food market strategies, food culture and cuisine, impacts on global food supply, and organic and socially responsible products. Classroom activities will include not only the planning and preparation of food but participation in food related projects, such as menu planning, budgeting, and dietary/allergen restricted diets. Emphasis is also placed on community involvement with relations to preparation of foods for events at SBRHS and the surrounding communities. **Students will be required to complete independent weekly homework assignments relating to current events in the food industry. One project per term will be assigned.**

#### Level 3

230213

Classroom activities will include not only the planning and preparation of food but participation in food related projects, such as menu planning, budgeting, and dietary/allergen restricted diets. Emphasis is also placed on community involvement with relation to preparation of foods for events at SBRHS and surrounding communities. **Students will be introduced to current event issues in the food industry through classroom discussion and in-class research.**

## Athletic Training and Exercise Science

### Grades 11, 12

#### Level 1

310209

This full year course discusses anatomy, the mechanisms of injuries common to athletic participation, how the body adapts to exercise, muscle structure and the influence of certain methods of training. Students are expected to keep accurate notes, perform to the best of their ability on all tests, projects and quizzes, conduct article reviews from scholarly journals, and be able to apply appropriate skills for injury recognition and treatment.

#### Level 2

320209

This full year course discusses anatomy, the mechanisms of injuries common to athletic participation, how the body adapts to exercise, muscle structure and the influence of certain methods of training. Students are expected to keep accurate notes, perform to the best of their ability on all tests, projects and quizzes, and be able to apply appropriate skills for injury recognition and treatment.

## **Life and Relationships**

### **Grades 11, 12**

#### **Level 2**

**320210**

This elective course is designed to help students gain a deeper understanding of the development of relationships and responsibilities one faces throughout a lifetime. The course begins with discussions on the nature of relationships and the natural progression to marriage and the decisions and implications of starting a family. Next is an in-depth study of the normal sequences of human development from conception to death. Issues covered include decision making, pregnancy, birth, child development, adolescence, aging, death and dying. Students are expected to keep accurate notes, perform to the best of their ability on all tests, projects and quizzes, students will be required to write opinion papers based on core concepts, principles of learning with fact based support.

#### **Level 3**

**330210**

This elective course is designed to help students gain a deeper understanding of the development of relationships and responsibilities one faces throughout a lifetime. The course begins with discussions on the nature of relationships and the natural progression to marriage and the decisions and implications of starting a family. Next is an in-depth study of the normal sequences of human development from conception to death. Issues covered include decision making, pregnancy, birth, child development, adolescence, aging, death and dying. Students are expected to keep accurate notes, perform to the best of their ability on all tests, projects and quizzes, students will be required to write opinion papers based on core concepts and principles of learning.

## **SEMESTER COURSES**

### **Baking and Pastry**

#### **Grades 11, 12**

#### **2 periods per cycle**

**300113**

An introductory course to the techniques and science behind traditional baking practices along with opportunities for hands-on instruction pertaining to these practices. Focus is also on kitchen safety, sanitation and safe food preparation.

### **CPR/ First Aid**

#### **Grades 11, 12**

#### **2 periods per cycle**

**301109**

CPR/AED and first aid program is designed to give students confidence to respond in an emergency situation with skills that can save a life. The students will be able to recognize and care for injuries or sudden illness.