

**Shrewsbury High School  
Shrewsbury, Massachusetts**

# **Program of Studies**

## **2019-2020**

### **SHREWSBURY HIGH SCHOOL MISSION STATEMENT**

*The Shrewsbury High School community provides challenging, diverse learning opportunities, promotes creativity and independent thinking and empowers students to become capable, caring, and active contributors to the world in which they live.*

Shrewsbury High School  
64 Holden Street  
Shrewsbury, Massachusetts 01545

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***Shrewsbury High School  
64 Holden Street  
Shrewsbury, Massachusetts  
508-841-8800***

***Message from the Principal***

Dear Students and Parents:

I am pleased to present the 2019-2020 *Shrewsbury High School Program of Studies*. Choosing a challenging and appropriate course of study is a very important piece of your high school experience. As you will see, Shrewsbury High School has a wide variety of courses for you to select from. While many are required for graduation, there are electives that you may select based on personal interest and future goals. Please take the time to review this booklet and then seek additional information and clarification from your teachers, counselors, and department directors.

The academic and elective programs at Shrewsbury High School have been carefully developed to integrate the *Massachusetts Curriculum Frameworks*, which the *Massachusetts Comprehensive Assessment System (MCAS)* is built on. This is particularly important, as all students must pass the MCAS in addition to completing all Shrewsbury High School course requirements to earn a diploma. You will also notice that all courses reflect our *21<sup>st</sup> Century Learning Expectations*, which you will find on page 3 of this book. These *Expectations*, which are divided into three categories: academic, civic, and social, outline what we expect every Shrewsbury High School student to be able to demonstrate by the time they graduate.

We look forward to working with you as you plan your future at Shrewsbury High School and beyond. If you consider your selections carefully and challenge yourself appropriately your high school experience will be both rewarding and memorable.

Sincerely,

Todd H. Bazydlo  
Principal

## **Shrewsbury High School Mission Statement**

The Shrewsbury High School community provides challenging, diverse learning opportunities; promotes creativity and independent thinking; and empowers students to become capable, caring, and active contributors to the world in which they live.

## **Shrewsbury High School's Core Values**

The Shrewsbury High School community has worked to identify our school's core values and beliefs. A committee comprised of students, staff and parents utilized current educational research to identify and highlight the core values, beliefs and 21st-century learning expectations that help drive our educational programming. The work of the committee and faculty resulted in the identification of our Core Values and Beliefs which are: Life-Long/Reflective Learners, Equity, Advocacy, Dedication, Empathy, Responsibility/Respect and identified the 21st-century skills that all Shrewsbury High School students will demonstrate upon graduation. We have shared our values in an acronym L.E.A.D.E.R to help ensure that all students can easily identify our school community's values and beliefs regarding their education.

### **Life-Long/Reflective Learners**

**Equity**

**Advocacy**

**Dedication**

**Empathy**

**Responsibility/Respect**

## **21<sup>st</sup> Century Learning Expectations**

**Academic Expectations** - Students at Shrewsbury High School will:

1. Apply critical thinking to solve problems.
2. Apply creativity to formulate work and express themselves in a variety of ways.
3. Exhibit effective communication skills.
4. Access, analyze and demonstrate an appropriate and varied use of information literacy and technology skills.
5. Develop and maintain health, wellness, fitness, and self-advocacy.

**Social Expectations** - Students at Shrewsbury High School will:

6. Demonstrate personal responsibility.
7. Show respect for all individuals through collaborative and cooperative opportunities.

**Civic Expectations** - Students at Shrewsbury High School will:

8. Exhibit a commitment to community involvement.

## **Shrewsbury Public Schools Statement of Non-Discrimination**

The Shrewsbury Public Schools are required by the Massachusetts Department of Education to publish an annual statement of non-discrimination. This notice serves to meet that requirement.

The Massachusetts Equal Educational Opportunity statute, General Laws Chapter 76, § 5, ensures that all students have the right to equal educational opportunities in public schools. The Shrewsbury Public School District is committed to ensuring equal educational opportunities for all students and does not discriminate on the basis of race, color, sex, religion, national origin, sexual orientation or disability.

The Shrewsbury Public Schools are in compliance with state and federal laws prohibiting discrimination and harassment. The following laws apply:

**Massachusetts General Law Chapter 76, § 5**, which states, "No person shall be excluded from or discriminated against in the admission to a public school or in obtaining the advantages, privileges, and course of study of such public school on account of race, color, sex, religion, national origin or sexual orientation."

**Title IX of the Educational Amendments of 1972**, is a federal statute which states, in part, "No person in the United States shall on the basis of sex be excluded from participation in, be denied the benefits of, or be subject to discrimination under any educational program receiving federal assistance." This requirement not to discriminate in educational programs and activities also extends to employment. Ms. Barb Malone is the Title IX Coordinator and Director of Human Resources and she can be reached at (508) 841-8400.

**Title VI of the Civil Rights Act of 1964**, provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving federal financial assistance. Title VI provides for equal access and prohibits discrimination in the assignment of students to classes. It also prohibits discrimination in ability grouping or tracking students.

The Shrewsbury School Committee Policies #316 and #645 deal directly with the issues of harassment. Copies of these policies are available in the principal's office at each school or through the Superintendent's Office, located at 100 Maple Avenue, Shrewsbury, MA 01545. Further information may be obtained by contacting Ms. Barb Malone, Director of Human Resources at (508) 841-8400.

The following grievance procedure which was approved by the Shrewsbury School Committee is to be used for all issues relating to harassment or discrimination involving students and/or staff:

- The Shrewsbury Public Schools does not and will not knowingly discriminate against any student or employee on the basis of race, color, sex, religion, national origin, sexual orientation or disability. All reports of harassment or discrimination will be taken seriously and investigated in a timely fashion. Reports will be held in the utmost confidence.
- Any individual who believes he/she has been the subject of harassment or discrimination should immediately report the incident, either verbally or in writing to an administrator, adjustment counselor, guidance counselor, or teacher. The principal must be notified in all cases of harassment or discrimination. All cases of harassment involving a staff member will be reported to the Director of Human Resources.
  - An administrator will first meet with the parties involved in an attempt to resolve the issue informally.
  - If the complainant is unable to meet with the alleged harasser, the administrator, teacher, or counselor may assist the complainant in drafting a letter clearly describing the incident (behavior, where and when it occurred), how the complainant felt, and a request that the behavior stop immediately.
  - Any letter should be signed by the complainant, sent to the alleged harasser and is kept on file by the school administrator.
  - The alleged harasser may be encouraged to apologize, personally or by letter or to write a letter refuting the allegations.
- In cases of alleged harassment requiring formal investigations, the following shall be implemented.
  - The complainant shall have the support of a staff member of his/her choice and the alleged harasser will also have the opportunity to select representation (union representative, attorney, teacher, etc). An administrator from the appropriate level will complete an investigation promptly and make a decision regarding the allegations.
- In serious cases where alleged harassment does not stop following a warning, appropriate disciplinary sanction may be imposed, up to and including suspension or dismissal.
  - If the conduct violates the law the incident will be reported to the appropriate authorities by the school administration.
  - Retaliation or threats of retaliation are unlawful and will not be tolerated.
  - In all cases of harassment or discrimination, the investigating administrator will make a final disposition and issue a written report, which will be maintained in the school's files.
- If the complainant cannot utilize the procedure detailed above because the alleged harasser is involved in the procedure, the complainant should contact the Superintendent of Schools. Complaints about the Superintendent of Schools should be made to the Chairperson of the School Committee.

**Section 504 of the Rehabilitation Act of 1973** is a federal statute which states, in part, "No otherwise qualified individual, shall solely on the basis of handicap, be excluded from participation in, be denied benefits of, or be subject to discrimination under any program or activity receiving federal financial assistance." This requirement not to discriminate in educational

programs and activities also extends to employment. Each school has a designated Section 504 Coordinator. Initial inquiries relating to Section 504 should be directed to the building-based Section 504 Coordinator who can be contacted through the principal's office. Further information may be requested by contacting the Director of Pupil Personnel Services at (508) 841-8660.

The following grievance procedure should be used to report discrimination under Section 504 of the Rehabilitation Acts of 1973:

- o To fulfill its obligation under Section 504, the Shrewsbury Public Schools recognizes a responsibility to avoid discrimination in policies and practices regarding personnel and students. No discrimination against a person with a disability will knowingly be permitted in any of the programs or activities of the Shrewsbury Public Schools.
- o The school district has a specific requirement under the Rehabilitation Act of 1973, which includes the responsibility to identify, evaluate and if the child is determined to be eligible under Section 504, to afford access to free and appropriate educational services. Questions about eligibility or services should be first directed to the building-based coordinator.
- o If a parent or guardian disagrees with the determination made by the professional staff of the school, he/she has a right to a hearing, first with the district's Section 504 Coordinator, and secondly with an impartial hearing officer. The district's Section 504 Coordinator can be reached at 15 Parker Road, Shrewsbury, MA 01545 or by phone at (508) 841-8660.
- o All grievances will be heard in a timely manner by the district's Section 504 Coordinator, who will provide a written report of the district's findings. If a parent or guardian is unsatisfied with the results of the review they may appeal to the Superintendent of Schools.
- o For grievances not resolved at the Superintendent's level, a review by an impartial hearing officer may be scheduled.

Individuals with grievances are not required to use the Shrewsbury Public School's grievance procedure. Written complaints may be filed with the following agencies:

Massachusetts Department of Education

75 Pleasant Street

Malden, MA 02148-5023 (781) 338-3000

United States Department of Education

Region 1 – Office of Civil Rights

John W. McCormack Post Office and Courthouse – Room 222

Boston, MA 02109-4557 (617) 223-9662

Equal Employment Opportunity Commission

One Congress Street

Boston, MA 02114 (617) 565-3200

Massachusetts Commission Against Discrimination

One Ashburton Place, Room 601

Boston, MA 02108 (617) 727-3990

## General Information

### Demographic Profile

Shrewsbury is principally a residential town with a population of 36,000; however, there is a significant amount of industry and business in the community. The public school system includes a pre-school, an early childhood center, four elementary schools, two middle schools (grades 5/6 and 7/8) and one high school (grades 9 through 12). Shrewsbury is located in central Massachusetts, five miles east of Worcester and thirty-five miles west of Boston. Shrewsbury High is a four-year comprehensive high school housing approximately 1800 students. The school is accredited by the New England Association of Schools and Colleges (NEASC).

### How to Plan a Program

Planning an educational program is an ongoing process and should involve the student, parents, teachers and school counselors. Course selection marks the beginning of responsible decision-making for many students. Parents should be involved in giving both help and direction as a student works through his/her decision. A major part of the process of course selection involves the gathering of information. Classroom teachers and school counselors are valuable resources at this stage.

The Program of Studies has been prepared with students in mind. Read it first to obtain information on the entire high school curriculum and then read the booklet a second time, more carefully, to obtain specific information on those courses which are either required for next year or those in which you have a particular interest and will elect.

Classroom teachers have in-depth knowledge of the content of various courses taught within their department. In addition, they are usually aware of the level of expectation within each course. Because they know students well and the kind of work individuals are capable of, teachers can make valid recommendations as to which courses to take within the department.

School counselors have a broad overview of the entire curriculum. Besides having a strong sense of the student's performance and ability level, counselors are very aware of the courses necessary to fulfill graduation requirements. In addition, counselors are able to provide advice about the kind of program and courses, which will be helpful to students as they prepare to pursue post-high school plans. Final placement can be discussed with the appropriate counselor and department director. **Not all student choices can be accommodated within scheduling constraints and school placement policies. The principal will make final decisions on placement.**

### Graduation Requirements

To earn a diploma from Shrewsbury High School, a student must earn a minimum of 105 credits and pass the Massachusetts Comprehensive Assessment System (MCAS). Specific distribution requirements must be fulfilled for graduation.



All students must earn at least the following credits:

20 credits in English	10 credits in Physical Education
15 credits in Social Sciences	3.75 credits in Health
15 credits in Math	2.5 credits in Fine or Performing Arts
5 credits in Science	23.75 credits in Electives

Within the stated credits, students must earn a specific number of credits in the following courses:

Subject Area	Total # of Credits Required for Graduation	Specific Courses Required for Graduation
English	20	English 9—5 credits
		English 10—5 credits
		English 11—5 credits
		English 12—5 credits
Social Sciences	15	U.S. History I—5 credits
		U.S. History II—5 credits
Math	15	---
Science	15	---
Health	3.75	Health 9: Wellness – 1.25 credits Health 10: Healthy Living – 1.25 credits Health 11: Lifelong Health – 1.25 credits
Physical Education	10	Grade 9 PE—2.5 credits
		Grade 10 PE—2.5 credits
		Grade 11 PE—2.5 credits
		Grade 12 PE—2.5 credits
Fine or Performing Arts	2.5	---
Electives	23.75	---

A semester of work in a course that meets daily earns 2.5 credits; a full year's work in a course that meets every day earns 5 credits. Freshmen and sophomores must carry a minimum of 31.25 credits. Juniors must carry a minimum of 28.75 credits and seniors must carry a minimum of 30 credits.

Only credits earned in grades 9-12 may be applied to graduation requirements. In order to participate in graduation, **ALL** requirements must be met. In addition, a senior must remain in good standing throughout senior year and pass four full credit courses (2.5 credits per semester) for the second semester. Courses that are graded on a Pass/Fail basis are not included toward the four

unless stipulated on an IEP or by prior administrative agreement. Seniors who do not successfully complete the requirements for a diploma are not allowed to participate in the graduation ceremony.

### **Promotion Policy**

In order to continue with the class, students must earn the following credit

To be considered a <b>sophomore</b>	A student must earn <b>21</b> credits
To be considered a <b>junior</b>	A student must earn <b>45</b> credits
To be considered a <b>senior</b>	A student must earn <b>73</b> credits

Students repeating freshman year may be promoted to the sophomore year at the end of the first semester if they have earned 33 credits. Those students repeating sophomore year may be promoted to the junior year at the end of the first semester if they have earned 59 credits. Students repeating junior year may be promoted to the senior year by earning 89 credits by the end of the first semester.

### **Repeating Courses**

Students may repeat courses for the following reasons:

- Failures
  - Both grades (the failing grade as well as the new grade) will appear on the transcript and will be counted towards GPA.
- Poor Grades
  - Both grades (the lower grade as well as the new grade) will appear on the transcript, and both grades will count towards GPA.

### **Summer School/Credit Recovery**

Summer School/Credit Recovery may be offered to provide students with the opportunity to make up failed courses.

- Students must attain a minimum grade of C- in the summer school/credit recovery course in order to receive credit.
- All summer school/credit recovery courses will be considered equivalent to one semester of work (worth 2.5 credits).
- Make-up should be done during the summer school session following the academic year in which the course was taken. No sequential courses may be taken prior to passing the prerequisite. Students failing one semester of English must make it up during summer school (if teacher approved) or during the academic year immediately following the failure. Whenever two semesters of English credit are outstanding, the student may *not* go on to the next year of English. He/she must make up both semesters of English at that point.
- A student must have the approval of the counselor and administrator to attend summer school/credit recovery program. He/she must maintain good attendance, make a

reasonable effort, and exhibit acceptable behavior in the failed class. Administrators will review cases on appeal with the department director.

To discuss course offerings and the selection process, please make an appointment with your school counselor:

Lee Diamantopoulos	508-841-8852	Email: ldiamantopoulos@shrewsbury.k12.ma.us
Susan Eriole	508-841-8830	Email: serieole@shrewsbury.k12.ma.us
Kathy Floyd	508-841-8818	Email: kfloyd@shrewsbury.k12.ma.us
Frank Flynn	508-841-8851	Email: fflynn@shrewsbury.k12.ma.us
Jammie Lussier	508-841-8827	Email: jlussier@shrewsbury.k12.ma.us
Judith O'Connor	508-841-8829	Email: joconnor@shrewsbury.k12.ma.us
Jessica Rice	508-841-8834	Email: jrice@shrewsbury.k12.ma.us
Nga Huynh	508-841-8824	Email: nhuynh@shrewsbury.k12.ma.us

### **Course Levels**

All placements are designed to provide the maximum intellectual challenge for each student. The school makes placement decisions on the basis of aptitude as determined by standardized testing, past academic performance, and teacher recommendations. Placement assumes that ability will allow success, but normal student effort is also assumed; low grades are not automatically a basis for dropping levels. It is also assumed that students and teachers will anticipate upward movements in level placements based on intellectual growth over years of schooling. Placement levels may vary in different subject areas.

#### **Advanced Placement (AP):**

AP courses are college-level classes that follow a specific, College Board approved curriculum taught by Shrewsbury High School staff. Courses are designed for the maximum challenge of the most intellectually curious students. Very substantial initiative and independent work is the norm. Students are expected to take the AP examination.

#### **Honors:**

Where Advanced Placement is not available, honors is the highest level in intellectual challenge. Substantial initiative and independent work is the norm.

#### **A Level:**

The largest grouping of students in the high school is A Level. Courses require a moderate to extensive intellectual development and outside preparation. These courses are designed to prepare students for college and the world of work.

### **Grade Point Average/Class Rank**

Grade point average is calculated from the total number of quality points a student earns. The grades received in the course taken and the level of the courses determines quality points. Shrewsbury High School does not report class rank to colleges and universities. Students' weighted grade point average is reported on the transcript and to colleges/universities.

Calculation of the valedictorian and salutatorian is based on the top two highest weighted grade point averages. In order to be considered for Valedictorian and/or Salutatorian, students must be enrolled as a Shrewsbury High School student for 8 consecutive semesters. Final determination of these distinctions will be made at the conclusion of quarter 3 of students' senior year.

### **Course Levels/Quality Points**

<b>Grade</b>	<b>AP</b>	<b>Honors</b>	<b>A Level</b>
A+	5.7	5.2	4.7
A	5.3	4.8	4.3
A-	5.0	4.5	4.0
B+	4.7	4.2	3.7
B	4.3	3.8	3.3
B-	4.0	3.5	3.0
C+	3.7	3.2	2.7
C	3.3	2.8	2.3
C-	3.0	2.5	2.0
D+	2.7	2.2	1.7
D	2.3	1.8	1.3
D-	2.0	1.5	1.0
F	0	0	0

The semester grade is an average of the two-term grades added to the semester exam. The weight of the semester exam may range from 10% to 20% of the semester grade.

### **Course Commitment**

Allocation of staff, rooms, and the number of sections offered are determined by the number of student requests received for a specific course; therefore, students selecting full-year courses are committed to remaining in the course for the entire year. Exceptions are permitted under certain

circumstances. Also, students selecting semester courses are committed to remaining in these courses for the semester scheduled.

### **Recommended Program**

The “best” schedule is the one that includes a comprehensive educational plan linked with career awareness and exploration. SHS offers students’ applied academic courses, workplace, and school-based learning, occupational and technical courses, field trips and internships. Our curriculum will effectively prepare students to live and work in a highly technical society through meaningful educational and career preparation.

### **College Preparatory Program**

As suggested earlier, school counselors can provide sound advice about an appropriate college preparatory program. Generally speaking, students should enroll for the most rigorous level of classes that they can handle. Each year students should be taking “major” courses in the liberal arts: English, mathematics, languages, social studies and science. In addition to these solid academic courses, students should also take the opportunity to broaden their scope and satisfy their interests by taking electives in the areas of family and consumer science, art, music, engineering, technology, and media.

#### **College preparatory academic courses should include:**

- **English:** courses in composition and literature that will include the development of reading, writing and comprehension skills.
- **Mathematics:** courses in algebra, geometry, advanced math. Students considering attending a Massachusetts state university are required to take four years of math as prescribed by the Massachusetts Board of Higher Education. Additionally, students who plan to major in math, science or engineering, should take a fourth year of math, including calculus.
- **Science:** courses in biology, chemistry or physics.
- **History/Social Sciences:** challenging advanced electives in human and social development.
- **Foreign Language:** two to three years of the same foreign language are the minimum language requirements. More are strongly recommended. Highly selective colleges look favorably upon four or five years.
- **Related Electives:** to broaden the depth and scope of a student’s educational background. Examples of these courses include child development, art, music, T.V. or technology.

### **Two-Year Technical/Junior/Community College**

Students planning post-high school education at a two-year college should follow the same prescribed program as for the four-year college.

### **School-to-Career**

Students planning to join the workforce full-time immediately upon graduation, in an entry-level position, should plan their high school program not only to satisfy graduation requirements but also to take advantage of courses that will provide marketable work-based competencies. Courses

from Family & Consumer Science, Technology Education, Media/TV production, music/art departments, Cooperative Work Study such as Job Shadowing, are strongly recommended.

### **Computer Access**

Shrewsbury High School fully embraces the guiding principle that technology enhances teaching and learning. In support of this belief, SHS has increased access to technology by providing each student an iPad and maintaining several computing areas. Access to computers can be found in the media center, computer labs and teachers have access to department laptop carts. These labs are scheduled by teachers and/or departments in order to teach entire classes a particular application or to hold workshops. Daily after-school access is available in the computer labs until 2:30 pm & in the media center until 3:00 pm.

### **Tutoring Services**

Peer tutoring is designed for students who need extra help in a subject. Tutors help support 9th and 10th graders with content, organization, and study skills. Peer tutors are National Honor Society members or students in grades 11-12 who have been recommended by their teachers. Tutoring sessions take place in departmental areas or media center during the student's study period; tutoring continues for as long as needed. Students are referred by a teacher, counselor, administrator, or parent. Please contact the school counseling office for more information about the program.

### **School Psychologists**

School Psychologist Counseling Services are available to all students in order to help them cope better with personal issues that may jeopardize healthy adolescent development. Students may make appointments directly with the school psychologists or through school administrators, teachers, school nurses, parents, or counseling staff.

#### **School Psychologists:**

Dr. Beth Neiman (508-841-8800 x2025) - Dr. Marc Spisto (508-841-8850)

### **School Counseling Department**

The SHS School Counseling Department supports the American School Counseling Association national standards and the Massachusetts Model for school counseling by providing academic, career, and personal/social development including post-secondary support for all students at SHS. School counseling programming is delivered to students in grades 9-12 through a classroom developmental guidance curriculum, individual meetings, and various group activities.

#### **Seminars**

School counselors design, plan, and deliver a developmental guidance curriculum through group seminars. Naviance, our academic, career, and post-secondary planning web-based program is utilized as part of the process to take students through the steps of post-secondary planning.

### **Grade 9**

Students participate in a three-day curriculum that assists students through the transition of high school by addressing the culture of SHS through its Core Values and understanding how to navigate SHS academically and personally to achieve success. Students are also introduced to Naviance and its features.

#### **Grade 10**

Students participate in a three-day curriculum understanding personal academic goals and school resources available to support their goals. In addition, students will develop a personal in-depth career exploration of the Holland Career Themes and expert experiences of Road Trip Nation through Naviance. Students complete a financial planning activity and are also introduced to Test Prep for access to SAT and ACT preparation.

#### **Grade 11**

Students participate in a three-day junior planning seminar. Juniors begin the post-secondary planning research process by utilizing Naviance in preparation for Junior Planning Night for students and parents/guardians. During semester two, counselors will meet with juniors to discuss post-high school planning and the college search process.

#### **Grade 12**

Students participate in a two-day post-planning application workshop including a stress education and management workshop with counselors. Individual meetings are planned for personalized planning throughout the college and post-planning application process. Additionally, various evening programs are presented to students and parents/guardians on the application process and financial aid.

### **Special Education Services**

Shrewsbury High School is committed to providing comprehensive programs for students with disabilities. The high school subscribes to the philosophy that all students can learn and that the purpose of special education is to minimize the impact of disability and maximize student ability to achieve success in the least restrictive environment with the greatest access to the general curriculum.

A teacher, parent, social worker, and/or physician may refer students for evaluation. Following a referral, students are determined to be eligible for special education services when all three of the following conditions are met:

1. A student has a documented disability
2. A student is not making effective progress as a result of that disability
3. A Student requires specialized instruction or related services in order to access the general curriculum

For further information regarding procedures and programs, please contact the Special Education Department Director.

**Director of Special Education - TBD (508-841-8828)**

### **Library Media Services**

The Library Media Program at Shrewsbury High School provides experiences which help students become independent, self-sufficient learners and researchers by offering instruction and guidance in the use of our extensive reference collection, both in print and electronic media. The program also fosters an enjoyment of literature and an appreciation of varied literary genre.

Research activities are embedded into the curriculum where the media specialist and the teacher work collaboratively to assist the students. Students also visit the media center during directed study periods to work independently or in small groups. The media center and multimedia function presentation room are available for students' daily use. The Media Center is open daily until 3:00 p.m.

#### **Media Center Staff:**

Emily Bredberg, Media Specialist (508-841-8821)

### **School Nurses**

The school nurses strengthen and facilitate the educational process by improving and protecting the health of children. The major focus of school nursing services is the prevention of illness and disability, and the early detection and correction of health problems.

#### **School Nurses:**

Brenda Filiere (508-841-8768)

Pam Johnson (508-841-8822)



## Information on Health & Sexuality Education

There are a variety of courses offered at Shrewsbury High School that include information with reference to sexuality and human growth and development. These programs have been developed by our professional staff and endorsed by the Health Education Advisory Council. The overall goal is to promote the health and well being of our students and to help them make wise and informed decisions during their teenage years and beyond.

Sexuality education is a component within the Health, Science, Social Studies, and Family and Consumer Science Departments. Topics such as puberty; dating; relationships and communication skills; pregnancy; birth control; abortion; sexual orientation; prevention of HIV/AIDS and other sexually transmitted diseases; and prevention of sexual abuse are included. The specific courses that include these topics are listed below. Parents are welcome to review the materials for these curricula. Please contact the appropriate department director to arrange a convenient time and location.

During the instruction, students will be able to ask questions, which will be answered factually and in an age-appropriate manner. Each student's privacy will be respected, and no one will be put on the spot to ask or answer questions or reveal personal information. Material will be presented in a balanced, factual way that makes clear that people may have strong religious and moral beliefs about issues such as birth control and abortion, and that these beliefs must be respected.

Under Massachusetts law MA G.L. C. 71 §32A and School Committee policy, a parent may exempt a child from any portion of the curriculum that primarily involves human sexual education or human sexuality issues. To receive an exemption, simply send a letter requesting an exemption for your child to the principal. No student who is exempted from this portion of the curriculum will be penalized. The school will provide an alternative assignment to students who are exempted.

Courses including sexuality education and human sexuality issues are as follows:

Health Education	Human Reproduction; Conception; Contraception; Sexually Transmitted Diseases; HIV/AIDS; Sexual Orientation; Relationships; Abuse
Bioethics	Introduction to Bioethics; Population Control and Birth Control; Abortion; HIV/AIDS
Biology (All levels)	Human Reproduction
Psychology	Development; Motivation (four main areas: sexuality, hunger,

	Achievement, and the need to belong)
AP Psychology	Biological Bases of Behavior; Motivation and Emotion; Physical and Cognitive Development; Social Development; Social Psychology; Psychological Disorders
Child Development	Teen Pregnancy and Parenthood; Prenatal Development; Preparing for Birth; The Baby's Arrival; Special Challenges for Children; Understanding the Behaviors of Children
Early Childhood Education	Guiding Children's Safety; Understanding Four and Five - Year - Olds; Guiding Storytelling Experiences

## **Special Programs**

Shrewsbury High School is a comprehensive public high school and as such its curricular offerings are designed to meet the needs of most students. There are times, however, when a student needs special programs or courses. Shrewsbury High School has several programs that may meet the needs of these students. For more specific information, it is important that students discuss these options with their guidance counselors to find out about enrolling in these special programs.

### **Course Offerings:**

Academic Support	Job Shadowing Program
Accounting	SHS Capstone Exhibition Honors
Cooperative Work Study Program	Virtual High School

#### **Academic Support (9507)**                      Grade (s): 9-12

Prerequisite: Permission of Instructor

Academic Support is a supportive academic environment designed to assist students to succeed in a regular education program. Support is provided to enhance organizational skills, study skills, and expectations of the academic classroom and teachers. The goal of this course is to help students to develop the necessary skills for continued achievement in high school. This course meets for 6 days during the 7-day cycle.

#### **Accounting (2024)**

Elective                      Full Year                      Grade (s): 12                      A Level

This course stresses the basic principles necessary for an intelligent understanding of the books and records used in business: debits and credits; opening and closing books; classification and analysis of accounts; controlling accounts; trial balance; working papers, and the preparation of financial statements. As concepts are learned, students will use a computer application that provides the opportunity to use automated accounting software to record their work. This course cannot be used to fulfill the three-year graduation requirement in Mathematics.

#### **SHS Capstone Exhibition Honors (9504)**

Elective                      Full Year                      Grade (s): Grade 11 Semester 2 continuing through Grade 12, Semester 1

Prerequisite: Permission from the coordinator

The intent of this program is to allow a select number of juniors and seniors to engage in Project Based Learning in an area of personal interest. Students will pursue an independent project over the course of the spring of their junior year and the fall of their senior year. The project may center around any of the major academic disciplines, art, music, technology, exercise/fitness, mindfulness, writing or performance. Students may also consider an internship or paid employment as part of their project. The required public exhibition will be evidence of a student's learning over the course of the year; it will celebrate that learning and showcase a final product that enables students to share their experience with a larger audience. Additionally, students will demonstrate their ability

to problem solve, organize time and resources, communicate effectively and reflect on oneself as a learner. Students will be required to demonstrate competence through the creation of a portfolio, exhibition, and reflective journal. Students will be required to meet performance benchmarks to remain in the program. Benchmark assessments will be made by a faculty mentor. Removal from the program is at the discretion of the faculty coordinator; decisions may be appealed to the principal. Students must apply by the end of sophomore year to be considered for this program.

### **Virtual High School**

Elective                      Semester or Full Year    Grade(s) 11-12                      A Level, Honors or AP

Virtual High School is a worldwide leader in offering high school courses in an online format. At Shrewsbury High School students can choose from over 200 semester courses and 7 full year Advanced Placement courses. Some of the more popular courses include Criminology, Investing in the Stock Market, Business & Personal Law, Forensic Science, Art History, and Pre-Veterinary Medicine. Popular Advanced Placement courses include AP Economics (Micro & Macro), AP Government & Politics, AP Art History, and AP Computer Science. VHS students should be motivated, independent learners who can budget their time effectively, enjoy working independently and want to use current information and communication technologies. Students have a designated class time as they would with any other elective. Check out Virtual High School by visiting the website at [www.govhs.org](http://www.govhs.org) where you can follow the academic link to the course catalog and a demo net course.

### **Job Shadowing Program (9974)**

Grade(s): 10-12

The Job Shadowing Program provides students with opportunities to explore occupations of interest to them. On an individual basis, students visit an adult at work for one day to gain first-hand familiarity with careers of interest to them. Students may identify their own sponsor for this program. Each job shadowing student may visit one work site per semester. Each participating student is required to research the occupation to be observed before the visit and to write a reflection after the experience. Students may sign up for Job Shadowing as part of the scheduling process, or at the beginning of the school year. This course will be graded as Pass/Fail. Students may earn up to .5 credits for each experience.

### **Cooperative Work Study Program (9988/5 credits), (9989/10 credits), (9990/15 credits)**

Grade(s): 11-12

Prerequisite: Permission of Program Coordinator, Administration, School Counselor

Cooperative Work Study Program is occupation oriented paid work experience. It gives students an opportunity to integrate on-the-job experience with their chosen career pathway. Students will work to improve industry-based skills and knowledge with skills already developed in school. This program allows students to attend school in the morning and work in a related business in the afternoon and evening. Students are required to complete an application process that will include the program coordinator, administration and school counselor approval to enroll. Students will be required to meet with the program coordinator quarterly to develop a portfolio of vocational materials, comply with program guidelines, and act in a responsible manner to be successful in this program. Credit will be based on period (s) assigned and grading is Pass/Fail.

## English Department

Mrs. Liza Trombley, Director

Phone: 508-841-8831, Email: ltrombley@shrewsbury.k12.ma.us

The English program is designed to meet students' individual needs and to help them acquire effective communication skills. Students are enrolled in an English class each year and must successfully complete four years in order to meet graduation requirements. Each year's course offerings build upon skills acquired during previous years. Listening, reading, speaking, thinking, research, and writing skills are emphasized each year; and students are challenged to support their opinions with specific details from their reading and observations. There are three levels of English at each grade level. Students are placed at a level most appropriate for them based on teacher recommendation, past and present academic performance, and future goals.

The English Department's curriculum is developed and continually refined in accordance with the Common Core State Standards' *Ten Guiding Principles for English Language Arts Programs in Massachusetts*. The *Guiding Principles* dictate that an effective English Language Arts and literacy curriculum: draws on literature in order to develop students' understanding of their literary heritage; draws on informational texts and multimedia in order to build academic vocabulary and strong content knowledge; develops students' oral language and literacy through appropriately challenging learning; emphasizes writing arguments, explanatory/informative texts, and narratives; holds high expectations for all students; provides explicit skill instruction in reading and writing; builds on language, experiences, knowledge and interests that students bring to school; nurtures students' sense of their common ground as present or future American citizens and prepares them to participate responsibly in our schools and civic life; reaches out to families and communities in order to sustain a literate society. Throughout the four years of English, the Department collectively strives to meet these goals.

### Course Offerings:

English 9	Advanced Placement English (Literature)
English 10	Advanced Placement English (Language)
English 11 or English 11: American Studies	Introduction to World Mythology
English 12	Creative Writing

### English 9 (9A-1204, 9B-1202, 9 Honors-1207)

*Meets Expectations for Student Learning: 1,2,3,4,6,7*

Required Full Year Grade: 9 A, B and Honors

Prerequisite: Past academic performance and teacher recommendation

Ninth grade English is a college preparatory course in which students read, discuss, and write about various literary genres, including such works as Shakespeare's *Romeo and Juliet* and Cisneros' *The House on Mango Street*. Students complete a research unit acquire new vocabulary; and in

grammar, focus on parts of speech, parts of a sentence, and phrases. Writing encompasses the requirements of the State Frameworks, including analytical writing, persuasive writing, narrative writing, and expository writing. There is an emphasis on providing apt textual references to support ideas in both writing and discussion. Honors level students will be required to produce some lengthier writing assignments. Emphasis will also be placed on non-written communication skills such as speaking and listening.

### **English 10 (10A-1205, 10B-1203, 10 Honors-1208)**

*Meets Expectations for Student Learning: 1,2,3,4,6,7*

Required      Full Year      Grade: 10      A, B and Honors

Prerequisite: Past academic performance and teacher recommendation

Tenth grade English is a college preparatory course which reviews and strengthens previously acquired language skills while introducing more sophisticated concepts. Students analyze the elements of fiction in such works as Shakespeare's *Julius Caesar*, and Lee's *To Kill a Mockingbird*. The study of multicultural literature continues with numerous poems and nonfiction pieces in the literature anthology. Extensive work on writing effective responses to open response questions continues, and there is an emphasis on framing and writing long compositions, which include specific references to literature students have already read. The focus in grammar is on the clause and intensive study of mechanics. Writing focuses on diction (effective, appropriate, rich vocabulary), coherency, organization, and thoughtful commentary about textual evidence.

### **English 11 (11A-1235, 11 Honors-1236)**

*Meets Expectations for Student Learning: 1,2,3,4,6,7*

Required      Full Year      Grade: 11      A Level or Honors

Prerequisite: Past academic performance and teacher recommendation

Eleventh grade English is a college preparatory course that applies previously learned skills to the study of American Literature. Particular attention will be paid to the historical context in which the work was written and/or set. Students will read and analyze seminal works such as *The Adventures of Huckleberry Finn*, *The Great Gatsby*, *The Catcher in the Rye*, and *The Crucible*. Students will also read and analyze short stories, poetry, and non-fiction from the American literary canon. Each student will learn the techniques of doing research using both traditional and technological methods and will produce several short research papers and projects. Students will develop critical reading, vocabulary, and writing skills as they prepare for the SAT exam in May. The college essay is introduced through a unit on narrative writing.

### **English 11: American Studies (11A-1224, 11 Honors-1225)**

*Meets Expectations for Student Learning: 1,2,3,4,6,7*

Required      Full Year      Grade: 11      A Level or Honors

Prerequisite: Teacher recommendation

American Studies combines all of the traditional aspects of eleventh grade English and U. S. History, but emphasizes the relationship between the two courses by studying them together with two teachers. Classes are scheduled during consecutive periods, providing flexibility in grouping students into different combinations. This course provides students with insight into the

relationships among our literary, cultural, artistic, philosophical and scientific traditions that have created a diverse but common American heritage since the Civil War. In addition, students will examine themes such as gender roles, racial identity, technological progress, war, and social progress. Class activities will emphasize collaboration, the use of technology, field studies and guest speakers. Each student will learn the techniques of doing research using both traditional and technological methods and will produce several short research papers and projects. The English component will also emphasize developing skills in critical reading, vocabulary development, and writing skills including the argumentative essay as they prepare for the SAT exam in May. Honors level students will be required to complete additional independent assignments and assessments. Students who register for this course must also register for U.S. History II: American Studies at the same level.

### **Advanced Placement English Language (1212)**

*Meets Expectations for Student Learning: 1,2,3,4,6,7*

Required      Full Year      Grade: 11      Advanced Placement

Prerequisite: Teacher recommendation; past academic performance; writing sample; PSAT score in Critical Reading and in Writing; successful completion of summer reading/work.

Advanced Placement Language and Composition (11th grade) is a college-level course in effective writing and critical reading. Writing skills are analyzed in a systematic way by studying a variety of prose. Students assess prose writing by examining an author's use of diction, syntax, tone, structure, purpose, and meaning. Attention will be centered on developing a personal rhetorical style that cultivates strong persuasive writing skills. Students will analyze writings through close reading drills, and the lessons learned will be transferred to their own writing. Emphasis will be focused on knowing how to select and use appropriate modes of writing. This course will use the American literature course as a base; however, it will require more reading and focused writing than honor's level English. Successful completion of summer work is required. Students are expected to take the Advanced Placement Exam in May.

### **English 12      (12A-1206, 12H-209)**

*Meets Expectations for Student Learning: 1,2,3,4,6,7*

Required      Full Year      Grade: 12      A Level or Honors

Prerequisite: Past academic performance and teacher recommendation

Twelfth grade English is a college preparatory course that focuses on elements of British Literature as well as high-interest texts from the Americas and beyond. Literature is analyzed through many lenses, allowing teachers to highlight their areas of expertise, interest, and past teaching experiences. Students are afforded a wide array of focused instruction, and are exposed to literature, (and related writings, art pieces, journalism, and film), focused on the humanities, social issues, women's studies, and drama, to name a few. The curriculum includes the literary analysis of either Shakespeare's *Macbeth* or *Hamlet*, among other typically anthologized works; it also includes more contemporary pieces. The interpretive aspects of symbolism, theme, figurative language, and style are emphasized. Students are encouraged to make connections to their own lives and the world they live in today. In writing, students produce progressively longer and more sophisticated expository writing, with explicit instruction around transitions, tone, and rhetorical strategies such

as repetition, understatement, and varied syntax. Work on the research paper and research project is continued. During the first semester, the personal narrative is an area of focus. Vocabulary study continues, and the study of grammar culminates with a focus on usage.

### **Advanced Placement English Literature (1211)**

*Meets Expectations for Student Learning: 1,2,3,4,6,7*

Required      Full Year      Grade: 12      Advanced Placement

Prerequisite: Teacher recommendation; past academic performance; successful completion of summer reading/work; PSAT scores or SAT scores in both Critical Reading and Writing Skills.

This is a college-level course for students in their last year of high school who have an interest in English and are recommended by their Grade 11 English teachers. The course combines lectures, seminars, a research project, and critical papers based on readings from major American, British, and world authors. Emphasis is placed on pre-critical discussion and writing with the goal of increasing students' ability to explain clearly, cogently, even elegantly, what they understand about literary works and why they interpret them as they do. Successful completion of summer work is required. Students are expected to take the Advanced Placement Exam in May.

### **Introduction to World Mythology (1258)**

*Meets Expectations for Student Learning: 1,2,3,4,6,7*

Elective      Semester      Grades 10-12      A Level or Honors

This introduction to world mythology course will examine the beliefs, cultural norms, and historical context behind various ancient myths and legends, emphasizing the ways in which these ancient myths and legends continue to give insight into human relationships, the human condition, the nature and perception of reality. As a survey course, students will analyze and explore the basic origins of Greek, Norse, Egyptian, and Celtic myths and legends, reinforcing an understanding of common and notable gods and goddesses, analyzing the purpose, function, and cross-cultural connections of mythology, as well as the various themes, narratives, and mythical elements that provide a lasting impact to the modern world. Open to grades 10-12, Honor or A level credit options.

### **Creative Writing (1213)**

*Meets Expectations for Student Learning: 1,2,3,4,6,7*

Elective      Semester      Grades 10-12      A Level or Honors

The purpose of this course is to expose students to various types of non-technical writing, such as poetry, drama, and short fictional and nonfictional narratives. We will study famous pieces, and students will also practice their own creative writing skills through daily journal prompts, specific technique exercises, and writing workshops that walk them through pre-writing activities, drafting, editing, and feedback. Grades will be based on completion of imitation assignments, progress made between drafts, participation, and self-reflective pieces. The semester will culminate in a portfolio submission, which will include the full process of several major works as well as a reflection of the student's writing experiences. Open to grades 10-12, Honor or A level credit options.



## English Language Education Department

Mrs. Kathleen Lange-Madden, Director

Phone: 508-841-8637 Email: klangemadden@shrewsbury.k12.ma.us

The English Language Education (ELE) Department is a district department, administering programs for English language learners (ELLs) in Grades K-12. The department's goal is to enable students to develop English language proficiency and achieve content-area standards, while simultaneously valuing their native languages and cultural backgrounds. At Shrewsbury High School, ELE course offerings are determined by the student's English language proficiency level. Courses align with the five performance levels, determined by the state English Language Development Standards. Instruction is designed to improve English language development in the four language domains, listening, speaking, reading, and writing, as well as enable students to learn grade-appropriate content. The ELE department also offers an internship elective for students, in grades 10-12, to work collaboratively with their peers who are learning English. Foreign language skills or bilingual skills are not required, but are certainly useful. Former ELLs are eligible for this internship.

### Course Offerings:

ELE English I	ELE American Culture & History I
ELE English II	ELE American Culture & History II
ELE English III	ELE Academic Support
ELE English IV	ELE Internship for non-ELLs

### **ELE English I A/B (9516A/9516B)**

*Meets Expectations for Student Learning: 1,2,3, 4, 6, 7*

Required Full Year Grade: 9-12 English Proficiency: level 1

This course is designed for students who have minimal English literacy skills. Students needing this course have not yet developed simple written and spoken communication in English. Instruction focuses on increasing English vocabulary, so students will begin to be able to read and write in English.

### **ELE English II A/B (9517A/9517B)**

*Meets Expectations for Student Learning: 1,2, 3,4, 6, 7*

Required Full Year Grade: 9-12 English Proficiency: level 2

This course is designed for students who have developed simple written and spoken English. Students in this course are able to read and comprehend below grade-level text. Students will read, discuss, and write about various literary genres, such as short stories, nonfiction, myths, folktales, poetry, and dramatic literature. Students will also read a novel.

**ELE English III A/B (9518A/9518B)**

*Meets Expectations for Student Learning: 1,2,3,4 6,7*

Required      Full Year      Grade: 9-12      English Proficiency: level 3

This course is designed for students who are able to communicate in English, but have not yet acquired the academic language needed for success in mainstream English classes. Students in this course are able to read and comprehend texts of limited linguistic complexity, as well as write short, simple paragraphs with limited detail and linguistic complexity relative to their native English-speaking peers. Students will read, discuss, and write about various literary genres, such as short stories, nonfiction, poetry, and legends, myths, & fables. Students will also read a drama and a novel.

**ELE English IVA/B (9522A/9522B)**

*Meets Expectations for Student Learning: 1,2 3,4,6,7*

Required      Full Year      Grade: 9-12      English Proficiency: level 4

This course is designed for students who are able to communicate in English and have begun utilizing grade-level academic language. Students in this course are able to read and comprehend texts almost at grade level, as well as write short, detailed compositions. Students are also able to edit their writing. Typically, students enrolled in this course have not been in the United States for a long period of time. Students will read, discuss, and write about various literary genres, such as short stories, narrative nonfiction, and poetry. Students will read a drama, as well as one to two novels.

**ELE American Culture & History I A/B (9519TA/9519TB)**

*Meets Expectations for Student Learning: 1,2, 3,4, 6, 7*

Elective      Full Year      Grade: 9-12      English Proficiency: level 1 and 2

This course is designed for students who have developed simple written and spoken English. Newcomer English students will also benefit from literacy instruction exploring American History. Students will learn about the pre-Colonial Era, settling the English colonies, the War for Independence, and life in America during the 1800s. Students will also learn about American holidays and customs, the democratic tradition, civic responsibilities, and information pertinent to the citizenship test.

**ELE American Culture & History II A/B (9520TA/9520TB)**

*Meets Expectations for Student Learning: 1,2, 3, 4, 6, 7*

Elective      Full Year      Grade: 9-12      English Proficiency: level 3 and 4

This course is designed for students who have developed written and spoken English, with some academic language proficiency. The goal of the course is to develop students' understanding of important events in American History and provide background schema for Social Sciences courses required for graduation. Students will learn about exploration in the 1400s, the English colonies, the American Revolution, the Constitution, the newly formed United States, the Industrial Revolution, the Civil War, and Reconstruction.

**ELE Academic Support (9508)**

*Meets Expectations for Student Learning: 1,3,6, 7, 8*

Elective              Full Year              Grade: 9-12              English Proficiency: all levels

This class gives students an opportunity to achieve success in their content area classes, as well as master academic English skills. This class offers students time and support to navigate the linguistic demands and cultural differences of required content class textbooks and assignments. Students are expected to use the class to conduct research, work collaboratively with peers or work independently on assignments, and/or receive instruction from the ESL teacher.

**ELE Internship (9525)**

*Meets Expectations for Student Learning: 1, 3,6, 7, 8*

Elective              Semester              Grade: 10-12              **Students who are not learning English**

Students will be assigned by the department director to work in ELE Academic Support as an assistant to the ESL teacher. Interns will assist in their assigned classes by helping English language learners as directed by the ESL teacher. The ESL teacher may also ask interns to create study guides or review materials with or for ELLs. Students who participate in this program will meet with their cooperating ESL teacher and will complete monthly feedback forms. The P/F grade for this internship will be determined by attendance and the feedback forms completed by both the ESL teacher and the intern. Foreign language skills or bilingual skills are not required, but are certainly useful.

## Family and Consumer Sciences Department

Mr. Jeffrey Lane, Director

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The Family and Consumer Science Program strives to encourage the development of each individual student to his/her fullest potential. There is no greater way to improve society than to improve each family's home life. This is especially pertinent as the basis of our curriculum reflects the core of daily living. By offering courses in child growth and development, consumer education, food and nutrition and personal growth, we attempt to give each student self-esteem, confidence, and awareness of others, in order to become a responsible contributor to society.

Family and Consumer Sciences is one of three disciplines within the Health Frameworks. Each of the Comprehensive Health content areas clearly relates to the discipline of Family and Consumer Sciences. Resource Management expands personal advocacy beyond consumer health. It includes managing home, consumer, workplace and environmental resources, which is the consumer education connection with topics such as child development, food science, nutrition and sports nutrition.

### Course Offerings:

Focus on Foods	Child Development I
Culinary Methods for Nutritious Foods	Child Development II
Foods of the World	Child Development II Honors
Mediterranean Cuisine	Early Childhood Education
Interior Design	Early Childhood Education Honors

### Focus on Foods (5410)

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Semester                      Grades: 9-12                      A Level

Students will learn the basic technology of food preparation and be able to identify, understand, analyze, and evaluate food choices. Emphasis will be placed on safety and sanitation in food preparation. Units covered will include quick breads, yeast breads, eggs, pies/pastry, and fruits and vegetables. The basic principles of the USDA's MyPlate will be studied.

### Culinary Methods for Nutritious Foods (5426T)

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Semester                      Grades: 9-12                      A Level

Prerequisite: Focus on Foods.

This course will concentrate on the principles of good nutrition based on the USDA's MyPlate guidelines. Through a more in-depth understanding of the six key nutrients and dietary guidelines, students will understand the importance of making sound food choices and how one's choices can have an effect on an individual's lifestyle. Students will be introduced to "new" foods and a variety of culinary methods used to prepare healthy foods. Units of study will include proteins, carbohydrates, fats, vitamins, minerals, water, and nutritional labeling.

### **Foods of the World (5425T)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Semester                      Grades: 9-12                      A Level

Prerequisite: Focus on Foods

Students will explore the cuisine and cultures of Latin America and Asian countries. Influences of geography, climate, and culture will be studied. Additional food preparation and techniques will be explored. Students should be open to sampling ethnic foods. **(This course will not be offered during the 2019-2020 school year.)**

### **Mediterranean Cuisine (5427)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Semester                      Grades: 9-12                      A Level

Prerequisite: Focus on Foods

Students will explore the cuisine and cultures of European and Mediterranean countries. Influence of geography, climate, and culture will be studied. Additional food preparation and techniques will be explored. Students should be open to sampling ethnic foods.

### **Interior Design (5430T)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Semester                      Grades: 9-12                      A Level

This course will expose students to the elements, principles, and goals of interior design, as well as concepts related to types of housing styles, and locations. In addition to gaining exposure to this career field, students will complete projects to demonstrate their understanding of concepts related to the course.

### **Child Development I (5440)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Semester                      Grades: 10-11                      A Level

Prerequisite: None

The course presents a fundamental knowledge of human growth and development to help one understand oneself and others. The focus is on gaining an understanding of children and the role that family plays in their lives. Emphasis is on skills essential to establishing a positive environment for maximizing a child's development physically, intellectually, emotionally and socially. Participation with the children in our Little Colonials Preschool supports our classroom learning.

### **Child Development II (5450)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Semester                      Grades: 10-11                      A Level

Prerequisite: Child Development I

This course focuses on the early stages of development from conception through early childhood. An in-depth study of the four areas of development helps students understand what needs to be considered to maximize a child's potential. Consideration is also given to the responsibilities of

caregivers, issues related to health and safety of the young child, and special challenges that may be faced. Participation in both the Little Colonials' Preschool and Baby Think It Over Project offer experiences that help to connect academic and life skills.

### **Child Development II Honors (5482)**

*Meets Expectations for Student Learning: 1,3,7,8*

Elective                      Semester                      Grades: 10-12                      Honors

Prerequisite: Child Development I

Students will be expected to incorporate service credits to their Child Development II course work. The service credits are assignments with programs in our elementary schools and in our preschools involving after school time. Four experiences of approximately 2 hours each are required. Two must be completed each quarter. Students will write a reflection about their experience including where they did their service, how many children were present, the ages of the children and a description of the activities that took place. Reflections must be passed in with a signed service verification sheet. Students will also complete one research project. Honors placement will be based on the teacher's recommendation and past academic performance.

### **Early Childhood Education (5460)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Full Year                      Grades: 11-12                      A Level

Prerequisite: Child Development I and II

Students will coordinate their study of Early Childhood Education by participating in an on-site preschool lab. The students will focus on the entire operation of the preschool, including such topics as developing an appropriate environment, safety, health, routines and nutrition for children. The course will offer in-depth information on planning and implementing activities for children along with providing students with foundational work skills, techniques for guiding the behavior of children and guidelines for developing effective observation skills.

### **Early Childhood Education Honors (5481)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Full Year                      Grades: 11-12                      Honors

Prerequisite: Child Development I and II

Students will coordinate their study of early childhood education by participating in an onsite preschool lab. Students will be required to complete four service experiences in our elementary schools. Honors students will also submit three research projects. The students will assist with the facilitation of the entire operation of the preschool. The course will require in-depth planning and implementing activities for children along with providing students with foundational work skills, techniques for guiding the behavior of children and guidelines for developing effective observation skills. For honors credit, the student must execute a written agreement with the instructor for additional independent outside work. Honors placement will be based on the teacher's recommendation and the student's past academic performance.

## Foreign Language Department

Ms. Sara Honig, Director

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The two main goals of the Foreign Language program are communication and exposure to the rich cultural aspects of diverse peoples. Living in a global community with more far-reaching contacts, interaction with people of different countries here at home becomes more probable and immediate. Because language & culture are so inextricably bound together, students who are exposed to foreign languages develop a respect for & understanding of cultural differences, and, in doing so, develop a better understanding of their own culture. Moreover, in the learning of another language, students begin to make better connections with English, which results in a better understanding of their own language & of their own culture. Foreign language is an essential part of our students' education & learning at least one language in addition to English prepares them for life in the 21st century.

Regarding methods of teaching language, traditional approaches have blended with performance based approaches. The common focus of teaching a foreign language is the student's ability to use the language beyond the classroom in real-life situations. Upon language exposure, students are expected to show measurable communicative proficiency and functional ability to understand, read, write, and speak the language. Second language acquisition is a life-long process with study beginning as early as possible and continuing throughout post-secondary education and beyond.

### Course Offerings:

French I	Spanish V
Accelerated French I	Spanish V Honors
French II	Advanced Placement Spanish
French II Honors	Latin I
French III	Latin II
French III Honors	Latin II Honors
French IV	Latin III
French IV Honors	Latin III Honors
French V	Latin IV Honors
French V Honors	Advanced Placement Latin: Vergil and Caesar
Advanced Placement French	Mandarin Chinese I
Spanish I	Mandarin Chinese II
Accelerated Spanish I	Mandarin Chinese II Honors
Spanish II	Mandarin Chinese III
Spanish II Language & Culture	Mandarin Chinese III Honors
Spanish II Honors	Mandarin Chinese IV
Spanish III	Mandarin Chinese IV Honors
Spanish III Honors	Mandarin Chinese V
Spanish IV	Mandarin Chinese V Honors

Spanish IV Honors	Advanced Placement Mandarin Chinese
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### **French I (8010)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year                      Grades: 9-12                      A Level

This course is designed for all students beginning the study of French. Imagine being able to carry on a conversation in French! You CAN by learning the basics of the language. Vocabulary and simple language patterns are used in classroom conversations and daily activities. You will learn a great deal about France through discussion, videos, films, and handouts.

### **Accelerated French I (8011T)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year                      Grades: 9-12

Prerequisite: Some study of introductory French.

The goal of this course is to prepare students for the high school French program. Students will hone their skills in reading, writing, speaking and listening. This course emphasizes the key grammar concepts and vocabulary necessary to advance to French II.

### **French II (8012)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year                      Grades: 9-12

Prerequisite: Demonstrated competency with Level I language skills and teacher recommendation. This course is designed for those students who have passed French I for credit, but still require significant practice and review of the four basic skills. Students will continue to hone listening, speaking, writing and reading skills. Emphasis will be placed on accuracy in the present tense and an introduction to the past tense. France will be the francophone region highlighted for cultural comparisons.

### **French II Honors (8045)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year                      Grades: 9-12                      Honors

Prerequisite: Demonstrated advanced competency with Level I language skills and teacher recommendation.

This course is designed for students who have been successful in the study of French I and have acquired the necessary skills to move up to the next level. Students will continue to develop the skills of speaking, listening, writing and reading. Emphasis will be placed on accuracy in the present tense, the past tense and an introduction to the imperfect tense. In preparation for the AP program, students will begin to do cultural comparisons and write informal emails. Students will use a reader to encourage conversation. France will be the francophone region highlighted for cultural comparisons. This course is conducted, with increasing frequency, in French.

### **French III (8013)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year                      Grades: 10-12



Prerequisite: Demonstrated competency with Level II language skills and teacher recommendation. This course is intended for students who wish to continue studying French in order to achieve better competency with the language. Emphasis will be placed on extending grammar and vocabulary in order to improve the students' ability to communicate, for example, how and when to use the *imparfait* and *passé composé*. Various French-speaking countries will also be explored. This course is conducted, with increasing frequency, in French.

### **French III Honors (8015)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year              Grades: 10-12                      Honors

Prerequisite: Demonstrated advanced competency with Level II language skills and teacher recommendation.

This course is designed for students who have been successful in the study of French II and have acquired the necessary skills to move to the honors level. Students will continue to increase self-expression and hone the skills of listening, speaking, reading and writing through compositions and oral presentations. Emphasis will be placed on extending grammar and vocabulary in order to improve the students' ability to communicate at the intermediate level, for example, how and when to use the *imparfait* and *passé composé*. Students will explore various French-speaking countries and also read authentic short stories. This course is conducted primarily in French.

### **French IV (8014)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year              Grades: 11-12

Prerequisite: Demonstrated competency with Level III language skills and teacher recommendation.

This course extends the students' ability for proficiency in communication in the target language as more sophisticated expressions are learned. Students will continue to improve upon listening comprehension and oral expression, and they will hone their reading skills by reading and discussing French novels. This course is conducted entirely in French.

### **French IV Honors (8016)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year              Grades: 11-12                      Honors

Prerequisite: Demonstrated advanced competency with Level III language skills and teacher recommendation.

This course is intended for those students who are preparing for entry into Advanced Placement French the following year. Emphasis is placed on developing accuracy in both oral and written expression with more complex and finite grammar. Students will read authentic literature including 'Le Petit Prince' and the fables of Lafontaine. This course is conducted entirely in French.

### **French V (8017)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year              Grade: 12

Prerequisite: Demonstrated competency with Level IV language skills and teacher recommendation.

This course is intended for those advanced students who enjoy learning French and wish to continue to practice their oral and written skills. It is primarily a literature and culture course with a review of all grammar. Contemporary literature and short readings will be read and discussed. The cultural focus will be on French-speaking countries around the globe. The class is conducted entirely in French.

### **French V Honors (8044)**

*Meets expectations for Student Learning: 1, 2,3,4,7*

Elective                      Full Year                      Grade 12                      Honors

Prerequisite: Demonstrated advanced competency with Level IV language skills and teacher recommendation.

This course is designed for honors students who wish to continue the study of French but opt not to take the French AP exam. Students will continue to practice their oral and written skills. Emphasis in this course is placed on accuracy in both oral and written expression, as more complex grammar is introduced. Contemporary literature and short readings will be read and discussed in seminar style. The cultural focus will be on French-speaking countries around the globe. The class is conducted entirely in French.

### **Advanced Placement French (8018)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year                      Grades: 11 -12                      Advanced Placement

Prerequisite: Demonstrated excellence in Honors IV level and strong teacher recommendation.

This course is intended for students who have attained a high degree of proficiency in French and who are interested in completing studies comparable in content and difficulty to a full-year college-level course. This course is designed to provide students with a communicative ability in the French language. The course objectives are to develop the ability to understand spoken French in various contexts, and to develop French vocabulary sufficient for reading newspapers and magazine articles, literary texts and other non-technical writings without dependence on a dictionary. Students will also develop the ability to express themselves in French, both orally and in writing, with reasonable fluency, coherence, and accuracy. Students are expected to take the Advanced Placement Exam in May. This course is conducted entirely in French.

### **Spanish I (8020)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year                      Grades: 9-12

This course is designed for all students beginning the study of Spanish. Students will learn the basics of the language while developing skills in comprehension and self-expression. A workable vocabulary and simple language patterns are used in conversations based on classroom experiences and daily activities. The course also introduces students to various cultural aspects of the Spanish-speaking World.

### **Accelerated Spanish I (8025)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year                      Grades: 9-12

Prerequisite: Some study of introductory Spanish.

The goal of this course is to prepare students for the high school Spanish program. Students will hone their skills in reading, writing, speaking and listening. This course emphasizes the key grammar concepts and vocabulary necessary to advance to Spanish II.

### **Spanish II (8022)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year                      Grades: 9-12

Prerequisite: Demonstrated competency with Level I language skills and teacher recommendation.

This course is designed for those students who have passed Spanish I for credit but still require significant practice and review of the four basic language skills. Students will continue to hone listening, speaking, writing and reading and concentrate on those segments of Spanish I that need additional review. Hispanic culture is woven into the curriculum via textbook readings, class discussions, videos, and language lab activities.

### **Spanish II Honors (8046)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year                      Grades: 9-12                      Honors

Prerequisite: Demonstrated advanced competency with Level I language skills and teacher recommendation.

This course is designed for students who have been successful in the study of Spanish I and have acquired the necessary skills to move up to the next level. Students will continue to develop the skills of speaking, listening, writing and reading with an emphasis on how and when to use the imperfect and preterite tenses. Hispanic culture is woven into the curriculum via textbook readings, class discussions, videos, and language lab activities.

### **Spanish II Language and Culture (8027)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year                      Grades: 10-12

Prerequisite: Spanish 1 credit and teacher recommendation.

This course is designed for those students who plan to take no more than two years of Spanish to satisfy a requirement for post-secondary education. The first half of the course provides a review of level 1 vocabulary and grammar topics. During the second half of the year, students continue to expand their vocabulary and the past preterit tense is introduced. Students have opportunities to further develop their language skills as well as to deepen their understanding of Spanish-speaking culture via cultural lessons interspersed throughout the curriculum.

### **Spanish III (8023)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year                      Grades: 10-12

Prerequisite: Demonstrated competency with Level II language skills and teacher recommendation. This course is designed for those students who have demonstrated an interest in the language and have acquired communicative competency with the basic skills. Oral and written skills are emphasized as students frequently produce essays and oral presentations. Students will also continue to practice reading comprehension through various readings of graduated difficulty. This course is conducted, with increasing frequency, in Spanish.

### **Spanish III Honors (8026)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year              Grades: 10-12                      Honors

Prerequisite: Demonstrated advanced competency with Level II language skills and teacher recommendation.

This course is designed to mirror the curriculum of Spanish III at a faster pace. Students will hone skills of speaking, listening, reading and writing through essays, oral presentations, skits, collaborative projects, etc. Students will continue to develop reading comprehension skills through the use of a Spanish reader. Emphasis will be on student use of the language in real life situations. This course is conducted primarily in Spanish.

### **Spanish IV (8024)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year              Grades: 11-12

Prerequisite: Demonstrated competency with Level III language skills and teacher recommendation.

This course extends the students' ability to perfect communication in the target language via readings on contemporary Hispanic culture and customs. There is greater emphasis on written grammatical constructions as students create and write dialogues and essays. Students continue to hone speaking skills through oral presentations and role-play situations as they acquire more sophisticated vocabulary and begin study of the subjunctive. This course is conducted in Spanish.

### **Spanish IV Honors (8027)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year              Grades: 11-12                      Honors

Prerequisite: Demonstrated advanced competency with Level III language skills and teacher recommendation.

This course is designed for those students who enjoy speaking, writing, listening and reading in Spanish and are preparing for entry into Advanced Placement Spanish. Emphasis is on the use of proper grammar, including an introduction to the subjunctive, but instruction is through active language. Students will present conversations, skits, and dialogues. Writing assignments are generated from personal and current themes on a regular basis. . Authentic literature materials in the form of newspapers, magazines, poetry and short stories are used to teach cultural and historical components. Videos are also included to enhance the curriculum. Class is taught entirely in Spanish.

### **Spanish V (8038)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year                      Grade: 12

Prerequisite: Demonstrated competency with Level IV language skills and teacher recommendation.

This course is intended for those advanced students who enjoy learning Spanish and wish to continue to practice their oral and written skills. This is primarily a literature and culture course with a review of all grammar. Students will read authentic literature, including poetry, short stories and folktales from Latin American and Spain. Written essays will focus on themes from the literature as well as on personal topics and current issues. The culture & the history of Spain will be explored with projects related to many aspects of Spanish life. Oral presentations, skits & dialogues will improve speaking proficiency in the target language. The class is conducted in Spanish.

### **Spanish V Honors (8028)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year                      Grades: 12                      Honors

Prerequisite: Demonstrated advanced competency with Level IV language skills and teacher recommendation.

This course is designed for advanced students who wish to continue the study of Spanish but opt not to take the Spanish AP exam. Authentic literature is used including short stories, short novels, plays, and poetry. Films and videos that parallel the curriculum are shown. The cultural focus is on Spanish-speaking countries and includes music, dance and current news events. This class is conducted entirely in Spanish.

### **Advanced Placement Spanish Language (8029)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year                      Grades: 11-12                      Advanced Placement

Prerequisite: Demonstrated excellence in Honors IV level and strong teacher recommendation.

This course is designed for those students who have attained a high degree of proficiency in Spanish and who are interested in completing studies comparable in content and difficulty to a full-year college-level course. The goal of the course is to prepare the student for the Spanish AP Language examination by emphasizing the basic objectives of proficiency in listening, speaking, reading and writing. All forms of writing are emphasized, especially the directed and the open-ended question. Weekly journals and critical writing pieces are included. Students hone listening and speaking skills through repeated practice in the form of dialogues, skits, interviews, and directed questions. Picture sequences are also used to practice for the exam, and grammar is reviewed, fine-tuned and applied in authentic communicative situations. Students are expected to take the Advanced Placement Exam in May. This class is conducted entirely in Spanish.

### **Latin I (8039)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year                      Grades: 9-12

Latin I is a beginning course with emphasis on pronunciation, vocabulary, grammar and reading skills. Emphasis is also placed on Roman life and culture, the permanent value of the Latin language, and the social values of the classical period. The study of English derivatives from Latin roots will increase the student's working vocabulary. A deeper understanding of English grammar is a logical outcome of this course.

### **Latin II (8031)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year                      Grades: 9-12

Prerequisite: Demonstrated competency with Level I language skills and teacher recommendation. The content of Latin II has been selected and arranged in such a way as to further the student's linguistic, cultural and social development. After a review of the vocabulary, forms and grammar constructions from Latin I, students study significant events in Roman history and more complex aspects of the language. Students will further develop reading and translating skills with special attention given to word order and sentence structure. The continued study of English derivatives from Latin roots will increase the student's working vocabulary.

### **Latin II Honors (8034)**

*Meets Expectations for Student Learning 1,2,3,4,7*

Elective:                      Full year                      Grades: 10-12                      Honors

Prerequisite: Demonstrated advanced competency with Level I language skills and teacher recommendation.

This course is designed to mirror the curriculum of Latin II at a faster pace. After a review of the vocabulary, forms and grammar constructions from Latin I, students study significant events in Roman history and more complex aspects of the language. Students will further develop reading and translating skills with special attention given to word order and sentence structure. Honors students also will have additional independent or collaborative assignments. The continued study of English derivatives from Latin roots will increase the student's working vocabulary.

### **Latin III (8041)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year                      Grades: 10-12

Prerequisite: Demonstrated competency with Level II language skills and teacher recommendation. This course provides adapted readings from classical literature as well as more complex grammar patterns. Students will read selections from authors of the first century B.C.E. with special emphasis on the prose of Cicero and selections from Caesar, Eutropius, and Nepos.

### **Latin III Honors (8032)**

*Meets Expectations for Student Learning 1,2,3,4,7*

Elective:                      Full year                      Grades: 10-12                      Honors

Prerequisite: Demonstrated advanced competency with Level II language skills and teacher recommendation.

This course is designed to mirror the curriculum of Latin III at a faster pace. Students will hone reading and writing skills through more challenging translations, oral presentations, and collaborative projects. Literature selections emphasize prose from authors of the first century B.C.E.

### **Latin IV Honors (8033)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year                      Grades: 11-12                      Honors

Prerequisite: Demonstrated advanced competency with Level III language skills and teacher recommendation.

The focus of this course will be on learning to read, translate and critique Latin poetry. Works of Ovid and Catullus will be studied along with an introduction to the “Aeneid” of Vergil. By the end of the year, students will have an understanding of Latin poetry, both “Elegiac and Epic” and will have been exposed to the ‘golden age’ of Latin poetry.

### **Advanced Placement Latin: Vergil and Caesar (8042)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year                      Grades: 11-12                      Advanced Placement

Prerequisite: Demonstrated excellence in Honors IV level and strong teacher recommendation.

This course is designed for those students who have attained a high degree of mastery in translating Latin literature. The goal is to prepare the student for the Advanced Placement Latin Vergil and Caesar exam by emphasizing the literal translation of Latin epic poetry and prose. In addition, a major emphasis will be placed on analyzing, discussing and writing critical essays on Latin poetry and Caesar’s *De Bello Gallico*. Fundamentals of Latin grammar will be reviewed in conjunction with a thorough exploration of the history of the Early Empire. Summer reading and/or a special project may be required. Students are expected to take the Advanced Placement exam in May.

### **Mandarin Chinese I (8050)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full year                      Grades: 9-12

The Mandarin Chinese I course is designed to focus on communication through the development of the four language skills: listening, speaking, reading and writing. Emphasis will be placed on accurate pronunciation, correct usage of grammar structures and the ability to listen, respond, and ask questions. At the end of the year, successful students will be able to participate in simple conversations and respond appropriately to basic conversational prompts as well as to generate language incorporating basic vocabulary and sentence patterns.

### **Mandarin Chinese II (8051)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full year                      Grades: 9-12

Prerequisite: Demonstrated competency with Level I language skills and teacher recommendation.

This course is a continuation of the middle school program of Mandarin Chinese. Students will continue to work to hone speaking, listening and writing skills as they acquire more characters and

more sophisticated patterns of expression. Students will also learn about the history, geography and cultural differences of the Chinese people.

### **Mandarin Chinese II Honors (8060)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full year              Grades: 9-12                      Honors

Prerequisite: Demonstrated advanced competency with Level I language skills and teacher recommendation.

This course is a continuation of the middle school program and is designed to mirror the curriculum of Mandarin Chinese II at a faster pace. Students will continue to work to hone speaking, listening and writing skills as they acquire more characters and more sophisticated patterns of expression. Students will also learn about the history, geography and cultural differences of the Chinese people. Additional assignments and projects will be required.

### **Mandarin Chinese III (8053)**

*Meets Expectations for Student Learning: 1, 2,3,4,7*

Elective                      Full year              Grades: 10-12

Prerequisite: Demonstrated competency with Level II language skills and teacher recommendation.

This course is designed for those students who have demonstrated an interest in the language and have acquired communicative competency with the fundamental skills. Oral, aural and written skills will continue to be emphasized. The class will consist of higher-level listening, reading, speaking, and writing exercises as well as using advanced grammatical structures and higher-level vocabulary lists.

### **Mandarin Chinese III Honors (8054)**

*Meets Expectations for Student Learning: 1, 2,3,4,7*

Elective                      Full year              Grades: 10-12                      Honors

Prerequisite: Demonstrated advanced competency with Level II language skills and teacher recommendation.

This course is designed to further prepare the student for real-life interactions using the Chinese language. Oral, aural and written skills will continue to be emphasized. The class will consist of higher-level listening, reading, speaking, and writing exercises as well as using advanced grammatical structures and higher-level vocabulary lists. Students are strongly encouraged to speak Chinese in the classroom as much as possible when dealing with each other or with the teacher. Additional assignments and projects will be required.

### **Mandarin Chinese IV (8055)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year              Grades: 11-12

Prerequisite: Demonstrated competency with Level III language skills and teacher recommendation.

This course extends the student's ability for proficiency in communication as more sophisticated expressions and additional characters are introduced. Students will continue to hone listening,



speaking, reading and writing skills. Students learn how to communicate in a variety of real-life situations and acquire further tools for self-expression.

### **Mandarin Chinese IV Honors (8056)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year              Grades: 11-12                      Honors

Prerequisite: Demonstrated advanced competency with Level III language skills and teacher recommendation.

This course extends the student's ability for proficiency in communication as more sophisticated expressions and additional characters are introduced. Students will continue to hone listening, speaking, reading and writing skills. Students learn how to communicate in a variety of real-life situations. Additional assignments and projects will be required.

### **Mandarin Chinese V (8057)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year              Grade 12

Prerequisite: Demonstrated competency with Level IV language skills and teacher recommendation.

This course is intended for those students who wish to advance their speaking, listening, reading and writing skills to the next level. Students expand their repertoire of characters and acquire further tools for nuanced communication.

### **Mandarin Chinese V Honors (8059)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year              Grade 12                      Honors

Prerequisite: Demonstrated advanced competency with Level IV language skills and teacher recommendation.

This course is intended for those students who have achieved a high degree of proficiency in Mandarin Chinese and wish to advance their speaking, listening, reading and writing skills to the next level. Students expand their repertoire of characters and acquire further tools for nuanced communication. Additional assignments and projects will be required.

### **Advanced Placement Mandarin Chinese Language (8066)**

*Meets Expectations for Student Learning: 1,2,3,4,7*

Elective                      Full Year              Grades: 11-12                      Advanced Placement

Prerequisite: Demonstrated excellence in Honors IV level and strong teacher recommendation.

This course is designed for those students who have attained a high degree of proficiency in Mandarin Chinese and who are interested in completing studies comparable in content and difficulty to a full-year college-level course. The goal of the course is to prepare the student for the Mandarin Chinese AP Language examination by emphasizing the basic objectives of proficiency in listening, speaking, reading and writing. All forms of writing are emphasized, especially the directed and the open-ended question. Weekly journals and critical writing pieces are included. Students hone listening and speaking skills through repeated practice in the form of dialogues,

skits, interviews, and directed questions. Picture sequences are also used to practice for the exam, and grammar is reviewed, fine-tuned and applied in authentic communicative situations. Students are expected to take the Advanced Placement Exam in May. This class is conducted entirely in Mandarin Chinese.

# Health and Physical Education Department

Mr. Jeffrey Lane, Director

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The Massachusetts Comprehensive Health Curriculum Frameworks focuses on building resilience that promotes the ability to thrive, persevere and maintain a positive attitude. **Health Literacy** is the capacity to obtain, understand and evaluate basic information. **Health Self-Management** enables students to integrate and apply essential knowledge and skills with respect to their own health-related decisions and behaviors. **Health Promotion and Advocacy** enables students to recognize and fulfill personal, social and civic responsibilities. The purpose of comprehensive school health is to provide each student with ongoing learning opportunities designed to maximize the prospect that each student will make positive decisions throughout life. The course of study will enable students to examine the options available to today's youth and identify components that are high risk and to be avoided. Our focus is on the promotion of wellness, not merely to prevent disease and disability.

Health Education at SHS incorporates standards and content outlined in the MA Comprehensive Health Curriculum Frameworks and provides opportunities for all students to develop and demonstrate health-related knowledge, attitudes, and practices. Lessons integrate the physical, mental, emotional, and social dimensions of health. This instruction is part of a sequential program designed to reinforce knowledge & positive attitudes to contribute to optimum health wellness. Physical education is an integral part of the total education of the student, contributing to the physical development of the individual through promotion and appreciation of physical fitness and activity. Lessons are developed as a planned sequence of learning experiences designed to fulfill the growth, development, and behavior needs of each student. We recognize the unique opportunity physical education has to contribute to social and emotional development, opportunities for positive peer group interaction, good sportsmanship, and proper self-discipline and control.

## Course Offerings:

Health 9: Wellness	Adventure II
Health 10: Healthy Living	Lifetime II
Health 11: Lifelong Health	Personal Fitness and Conditioning
Global Health	Team II
Adventure I Strand	Physical Education Leadership
Creative Movement Strand	Physical Education Leadership Honors
Lifetime I Strand	Foundations of Physical Education
Team I Strand	

## Health 9: Wellness (9016T)

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Required

Semester

Grade: 9

A Level

Prerequisite: None

The Wellness course is a graduation requirement for all freshmen. Emphasis is placed on health-related skills of analyzing influences, interpersonal communication, and decision making. The core content includes: Mental/emotional health including anti-bullying, substance abuse prevention focusing on addiction and current drug trends, sexuality focusing on reproduction and contraception. This course meets for 3 days during the 7-day rotation.

### **Health 10: Healthy Living (9017T)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Required      Semester      Grade 10

Prerequisite: Health 9

The Healthy Living course is a graduation requirement for all sophomores. Emphasis is placed on health-related skills of analyzing influences, goal setting, advocacy, and self-management. The core content includes: CPR/AED and first aid training, nutrition including personal diet analysis and healthy choices, and anti-bullying. This course meets for 3 days during the 7-day rotation.

### **Health 11: Lifelong Health (9018TT)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Required      Semester      Grade: 11

A Level

Prerequisite: Health 10

The Lifelong Health course is a graduation requirement for all juniors. Emphasis is placed on the health-related skills of accessing information, advocacy, interpersonal communication. The core content includes: Lifestyle and infectious disease prevention, bullying prevention, and lifelong health skills. This course meets for 3 days during the 7-day rotation.

### **Global Health (9120)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective      Semester      Grade: 12

Students interested in fields of medicine, environmental, and influencing public policy would benefit greatly from this course. Global Health is a multidisciplinary field that involves a blend of health and social sciences, such as biology, medicine, epidemiology, environmental science, anthropology, economics, and sociology. Students will have the opportunity to examine infectious diseases, lifestyle diseases, and mental illness while considering how society and culture influence our health. They will investigate barriers to solving global health issues, as well as explore solutions for improved global health. Potential topics include CVD, diabetes, and the obesity epidemic; HIV/AIDS, malaria, influenza, and tuberculosis; stress, depression, and anxiety; food supply, safety, and nutrition; and, environmental and societal factors, such as climate change, big industry, economic disparities, and water availability. Students will analyze the relative importance of issues and practicality of solutions with discussion, debate, and position papers. Students who want to take this course for honors credit must execute a written agreement with the teacher for additional work. This course meets for 3 days of the 7-day rotation.

## **Physical Education 9-12**

Physical Education is required for all students in every grade and must be passed each semester for graduation. Students in grades 9 and 10 are scheduled into four strands of Adventure I, Creative

Movement, Lifetime I and Team Sports. Orientation to the fitness center is presented to all students. The physical fitness levels of students are assessed and recorded each year in a pre-test and post-test format. Skill competencies, written assignments and class evaluations are incorporated into the units. Each grade level is expected to show proficiency in the activities that are important for their personal development at the appropriate stage.

### **Adventure I (9108)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Required	Semester	Grade(s): 9-10	Elective for Grade(s): 11-12	Prerequisite:
None				

Adventure I is a required course for 9th or 10th grade students and satisfies, in part, the physical education requirement for graduation. This course will allow students to progress through an experientially-based program that emphasizes interpersonal skills and individual growth. Throughout the semester, students will be encouraged to develop greater self-confidence while acquiring a sense of trust and commitment in their classmates. This course meets for 3 days during a 7-day rotation. *The Adventure Education strand includes: Icebreakers, Trust Activities, Low Outdoor Adventure Elements, Selected High Outdoor Adventure Elements, Indoor Rockwall*

### **Creative Movement (9109)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Required	Semester	Grade(s): 9-10	Elective for Grade(s): 11-12	Prerequisite: None
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Creative Movement (CM) is a required course for 9th or 10th grade students and satisfies, in part, the physical education requirement for graduation. CM Introduces the fundamentals of movement through the development of basic dance techniques and comprehension of rhythm. Elements of dance composition are introduced and provide students with the opportunity to create individual and group work. The integration of basic yoga practices allows students to learn skills including relaxation, postures, breathing, concentration, meditation, and positive thinking. This course meets for 3 days during the 7-day rotation. *The Creative Movement strand includes: Ice breakers, Swing, Waltz, Line Dancing, Hip Hop, Yoga, and Cardio Kickboxing.*

### **Lifetime I (9107)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Required	Semester	Grade(s): 9-10	Elective for Grade(s): 11-12	Prerequisite:
None				

Lifetime I is a required course for 9th or 10th grade students and satisfies, in part, the physical education requirement for graduation. Lifetime leisure and recreational activities are purposefully designed to offer students experiences that will provide a foundation for leading a healthy, physically active lifestyle. The activities selected for this course are designed to teach skills associated with the enjoyment of individual and dual lifelong activity. This course meets for 3 days during the 7-day rotation. *The Lifetime I strand includes: Icebreakers, Heart Rate Monitors, Fitness Orientation, Frisbee Activities, Golf, Tennis, Badminton*

### **Team I (9106)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Required      Semester      Grade(s): 9-10 Elective for Grade(s): 11-12      Prerequisite: None  
Team I is a required course for 9th or 10th grade students and satisfies, in part, the physical education requirement for graduation. Introduction to basic rules and individual/ team skill development with practical application through game competition. This course meets for 3 days during the 7-day rotation. *The Team Sports strand includes: Icebreakers, Group Initiative Activities, Lacrosse, Field Hockey, Floor Hockey, Multicultural Games*

### **Adventure II Physical Education (9115)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective      Semester      Grade(s): 11 and 12      A Level      Prerequisite: Adventure I  
Adventure II is an elective course for 11th or 12th grade students and may be taken to meet, in part, a student's minimal physical education requirement or as an additional elective course. The purpose of this course is to enable students to develop teamwork and problem solving and goal-setting strategies while experiencing risk-taking challenges through the engagement of experiential education, cooperative games and upper-level challenge course activities. *Students participate in the following activities: Icebreakers, Trust Activities, Low Outdoors Adventure Elements, High Outdoors Adventure Elements.* This course meets for 3 days during the 7-day rotation.

### **Lifetime II Physical Education (9114)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective      Semester      Grade(s): 11 and 12      A Level      Prerequisite: Lifetime I  
Lifetime II is an elective course for 11th or 12th grade students and may be taken to meet, in part, a student's minimal physical education requirement or as an additional elective course. The purpose of this course is to enable students to reach the recommended 60 minutes of physical activity per day and encourage students to engage in these lifetime activities outside of the school day and beyond high school. Students will participate in a variety of activities such as Icebreakers, Heart Rate Monitors, Orienteering/Geocaching, Mountain Biking, Lawn Games, Pickleball, and Snowshoeing and Cross Country Skiing -weather permitting. This course meets for 3 days during the 7-day rotation.

### **Personal Fitness and Conditioning (9113)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective      Semester      Grade(s): 11 and 12      A Level      Prerequisite: None  
*Personal Fitness and Conditioning* is an elective course for juniors and seniors and may be taken to meet a student's minimal physical education requirement or as an additional elective course. Students will examine the five health-related components of fitness and strategies to address each in their fitness training. Students will design and implement their own fitness program, use heart rate monitors, record their progress, and complete activity logs to monitor their success. This course meets for 3 days during the 7-day rotation.

### **Team Sports II (9116)**

*Meets expectations for Student Learning 1,2,3,4,5,6,7*

Elective	Semester	Grade(s) 11 and 12	A Level	Prerequisite: Team Sports I
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Team II is an elective course for 11th or 12th grade students and may be taken to meet, in part, a student's minimal physical education requirement or as an additional elective course. Students will learn each game's skills and techniques, and put them to the test in tournament play run by the students, through the Sport Education Model teaching system. Students will rotate through different role-playing assignments, including, but not limited to, captains/coaches, fitness trainers, equipment managers, statisticians/scorekeepers, referees, and, player perspectives. Through their experience in these positions of responsibility for running their team, the students will have a chance to ultimately gain valuable insight and lifetime carryover skills for supervision and management, along with information on each sport. *Team II strand includes Icebreakers, Flag Football, Soccer, Team Handball, Basketball*

### **Physical Education Leadership (9110)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective	Semester	Grade(s): 11 and 12	A Level	Prerequisite: Director's Approval
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This class may be taken during a student's junior or senior year and is an elective course. Students, under the direction of the physical education teaching staff, serve as assistant teachers, and may work with Adaptive PE classes. Students are required to keep a journal of their daily activities, write lesson plans for classes in which they assist, and write a paper on their experience during the semester. A genuine interest in teaching or coaching is recommended.

### **Physical Education Leadership Honors (9111)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective	Semester	Grade(s): 12	Honors
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Prerequisite: Successful completion of the PE Leadership course & Director's approval

This elective course may be taken during a student's senior year and is an elective course. Students will serve as teacher aides in physical education at the elementary, middle or high school levels. Enrollment in this program is limited. Students are required to keep a journal of their daily activities and write a paper on their experiences each semester. Also, with the aid of their master teacher, students write lesson plans and unit plans for classes that they teach. It is required that students have taken PE Leadership prior to this course. Any student with a genuine interest in teaching as a career will benefit from this course.

### **Foundations of Physical Education (9118)**

Elective	Semester	Grade(s): 11 and 12	Prerequisite: Director's Approval
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This elective course may be taken to meet, in part, a student's minimal physical education requirement or as an additional elective course. Students under the direction of the adaptive PE teaching staff, serve as peer partners in a unified physical education setting. Students have the opportunity to develop knowledge & skills that promote PE, wellness, sports & recreation activities for all abilities that can be incorporated into a physically active lifestyle. Students will gain valuable physical activity experiences while working in a diverse setting that fosters leadership & teamwork in a safe and supportive environment. Course meets 3 days during the 7-day rotation.

# Instructional Technology, Television & Media Services

Ms. Shawna Powers, Director

Phone: 508-841-8756 Email: smpowers@shrewsbury.k12.ma.us

The Instructional Technology and Media Services department focuses on developing skills to enable students to gather, understand, manipulate, create, and present information to enhance their learning experiences while at Shrewsbury High School and beyond. These technologies are integrated into all curriculum areas, fully embracing the guiding principle that technology enhances teaching and learning. To assist in accomplishing these tasks, the Shrewsbury schools fully embrace the Department of Education's technology standards for all students:

- Demonstrate proficiency in the use of computers and applications as well as an understanding of concepts underlying hardware, software, and connectivity.
- Demonstrate responsible use of technology and an understanding of ethics and safety issues in using electronic media.
- Demonstrate ability to use technology for research, problem-solving, and communication. Students locate, evaluate, collect, and process information from a variety of electronic sources. Students use telecommunications and other media to interact or collaborate with peers, experts, and other audiences.

For those students who have an interest in developing skills beyond what they receive in their regular programs, SHS offers several courses that range from introductory to advanced topics. Several of our course offerings require after school and evening time, which is an integral part of our program.

## Course Offerings:

Multimedia Applications	Cybersecurity
Advanced Multimedia Design	Introduction to Television Production
Web Design	Television Production II
Intro to Computer Programming with Java	Advanced TV Production
Computers Science 1 Honors	Student Innovation Team
Computer Science 2 Honors	ITAMS Internship

## Multimedia Applications (7311)

*Meets Expectations for Student Learning: 1,3,4,5,6,7,8*

Elective                      Semester                      Grades: 9-12                      A Level

This course explores animation and related multimedia topics. In this course, students will learn to create digital drawings and animations guided by best design practices. Students will learn to enhance their animations with sound and interactivity up to and including building simple games when class pacing permits. This course is project based & will involve individual and collaborative projects.



### **Advanced Multimedia Design (7312)**

*Meets Expectations for Student Learning: 1,3,4,5,6,7,8*

Elective                      Semester                      Grades: 9-12                      A Level

Prerequisite: Multimedia Applications

Computers have become a critically important tool for design professionals as an aid in the communication of ideas. In this course, students will learn to use a variety of graphic visualization software. Students will be provided with a comprehensive introduction to the multimedia concepts required to transform their ideas into models and animations. Students will come to understand the full potential these tools offer them to facilitate communication of complex ideas. Other advanced multimedia tools will also be explored. Special emphasis will be given to the development of project planning & work group skills. This course satisfies the arts graduation requirement.

### **Web Design (7314)**

*Meets Expectations for Student Learning: 1,3,4,5,6,7,8*

Elective                      Semester                      Grades: 9-12                      A Level

With the widespread use of the Internet, Web Design will provide students with valuable technology skills and knowledge to become effective communicators in this ubiquitous medium. This class will focus on page content, planning, design, setup, and maintenance of a website. Throughout the course students will work individually and in groups to create a website with multiple pages and functions. Students will become familiar with terms and components of the Internet, and they will and develop an awareness of design considerations that affect web page construction. This is not a traditional programming course, but students will learn to write basic code in HTML, CSS, and JavaScript for their web pages. No previous experience is required. This course satisfies the arts graduation requirement.

### **Computer Science 1 Honors (7333)**

*Meets Expectations for Student Learning: 1,2,3,4,6, 7*

Elective                      Full Year                      Grades: 10-12                      Honors Level

Using the nationally recognized Project Lead the Way curriculum, this is an introductory course designed to develop computational thinking and introduce professional tools that foster creativity and collaboration. Students will use Python® as a primary tool, but they will also be introduced to multiple platforms and languages, such as php and SQL. Projects and problems include app development, visualization of data, image processing, cybersecurity, and simulation. No previous experience is required.

### **Computer Science 2 Honors (7340)**

*Meets Expectations for Student Learning: 1,2,3,4,7,8*

Elective                      Full Year                      Grades: 11-12                      Honors Level

Prerequisite: Computer Science 1 Honors or Instructor Approval

Using the nationally recognized Project Lead the Way curriculum, this course will teach students authentic app development using Java, Android Studio, and XML by building on the basic skills learned in Computer Science 1 Honors and reviewing and extending the skills learned in Introduction to Computer Programming with Java. The primary goal of the course is to create

independent thinking app developers; every unit in this course builds on students' prior knowledge and skills until they are able to complete an app development cycle independently from the ground up. Students collaborate to create original solutions to problems of their own choosing by designing and implementing user interfaces and Web-based databases.

### **Cybersecurity (7417)**

*Meets Expectations for Student Learning: 1,2,3,4,7,8*

Elective                      Full Year                      Grades: 10-12                      A Level

Using the nationally recognized Project Lead the Way curriculum, this course will expose students to the ever growing and far-reaching field of cybersecurity. Students will engage in problem-based learning, where students act as cybersecurity experts and train as cybersecurity experts do. Students will identify cybersecurity threats and how to protect against them, learn how to detect intrusions and respond to attacks, and begin to examine their own digital footprint and how to better defend their own personal data. They will learn how organizations protect themselves in today's world and what careers in the emerging field of cybersecurity exist. Yet whether the student is seeking a career in the emerging field of cybersecurity or learning to defend their own personal data or a company's data, students in PLTW Cybersecurity establish an ethical code of conduct while learning to defend data in today's complex cyberworld. No previous experience required.

### **Introduction to Computer Programming with Java (7320)**

*Meets Expectations for Student Learning: 1,3,4,5,6,7,8*

Elective                      Semester                      Grades: 10-12                      A Level or Honors

Prerequisites: Successful completion of Algebra and Geometry II Honors or Advanced Math I

Understanding programming is becoming an increasingly valuable skill for success in our digital world, one that requires both creativity and logic. This course is an introductory course that explores programming concepts through the hands-on creation of small applications. This course benefits both aspiring programmers and students who are not planning to pursue technical careers. Honors credit requires a contract with the instructor for additional independent work. **(This course will not be offered during the 2019-20 school year.)**

### **Introduction to Television Production (7401)**

*Meets Expectations for Student Learning: 1,3,4,5,6,7,8*

Elective                      Semester                      Grades: 9-12                      A Level

This course is a semester course for those students who have an interest in the field of television production. Students will learn the basics of video production to create movie trailers, movie shorts, and news packages. Students will learn camcorder and studio camera use, interview techniques, storyboarding, editing, audio, and studio production. In addition, students will learn the importance of media literacy. This knowledge will enable the students to participate in a variety of productions including live studio events. This class requires after school and evening participation.

### **Television Production II (7403)**

*Meets Expectations for Student Learning: 1,3,4,5,6,7,8*

Elective                      Full Year                      Grades: 10-12                      A Level or Honors

Prerequisite: Introduction to Television Production and approval of ETS director.

The purpose of this course is to further develop the skills acquired in Intro TV with more emphasis placed on the quality of the video projects produced. Students will explore advanced camera and editing techniques. In addition to completing projects for regularly scheduled productions, students will complete 1-2 independent projects during the school year. Students are expected to take on more advanced positions during productions for over air broadcasts including directing, technical directing, floor manager, and video playback. Media integration is an integral part of this program, and it is expected that students will be involved in assisting teachers, students, and others to achieve this goal. Cooperative teamwork and strong organizational skills are essential. After-school and evening productions continue to be an integral part of the program. Honors credit requires a contract with the instructor for additional independent work. This course satisfies the arts graduation requirement.

### **Advanced TV Production (A-7409, H-7405T)**

*Meets Expectations for Student Learning: 1,3,4,5,6,7,8*

Elective                      Full Year                      Grades: 11-12                      A Level or Honors

Prerequisite: Introduction to Television Production, Television Production II, and approval of ETS director.

This class is offered to those students who have previously demonstrated an ability to work independently in Intro to Television Production and Television Production II courses and who would like to continue to pursue their interest in video and studio production. These students have exhibited advanced knowledge of the television studio and its operations. They may also have an interest in furthering their education in the field of communications. The students who elect to take this course will be responsible for the following: sophisticated video productions, producing regular programming for curriculum and educational purposes, producing and directing special productions and sporting events, and assisting students in Introduction to Television Production and Television Production II as time permits. In addition to completing projects for regularly scheduled productions, students will complete 1-2 independent projects during the school year. Honors credit requires a contract with the instructor for additional independent work. Enrollment is limited. This course satisfies the arts graduation requirement.

### **Student Innovation Team (Semester - 7415, Full Year - 7415T)**

*Meets Expectations for Student Learning: 1, 3, 4, 6, 7, 8*

Elective                      Semester or Full Year                      Grades: 9-12                      A Level

The Student Innovation Team is a hands-on course that focuses on problem-solving, research, and training. Members of the Student Innovation Team (SIT) serve as the first level of technology support for teachers and students, assessing problems and identifying the best approaches to solve problems. SIT students provide tech support as they work at our help desk, which is located in the media center. As part of the course, students will pursue an independent learning endeavor (ILE) in a topic they choose with the approval of the instructor. Students will also research new and updated apps for the iPad and create training videos and written tutorials for the high school community. Students are expected to demonstrate the ability to work independently and direct

their own learning. Students can take this course up to 4 semesters. This course can be taken as a semester course or a full-year course.

**ITAMS Internship (9972)**

Meets Expectations for Student Learning: 1,2,3,4,7,8

Elective          Semester          Grades: 10-12

Prerequisites: Teacher Recommendation and director approval

Interns will work with teachers in the TV Studio, Media Center, and/or Student Innovation Team Help Desk. Students who participate in this program will meet with their cooperating teacher and/or the director regularly. Interns will also complete a written reflection at the end of each quarter. The grade for this class will be a pass/fail grade and it will be determined by attendance, written reflections, and contributions to the department.

## Mathematics Department

Ms. Jean-Marie Johnson, Director

Phone: 508-841-8806 Email: [jmjohnson@shrewsbury.k12.ma.us](mailto:jmjohnson@shrewsbury.k12.ma.us)

An understanding of mathematics is vitally important to developing critical thinking and problem-solving skills and, therefore, students are encouraged to take a rigorous course of high school mathematics. Algebra and Geometry provide the foundation for all other mathematics so we cannot overemphasize how important it is for students to work diligently to achieve a sound understanding of these subjects. Our program is designed to meet the diverse needs of the learners at Shrewsbury High School to provide all students with the opportunity for success.

All of the math courses in our programs are college preparatory courses based on the standards set forth by the *Massachusetts Frameworks* and will ensure students an opportunity to be successful on statewide assessments. Senior electives include advanced placement courses in Calculus (AB and BC) and Statistics. Other electives for seniors include Mathematical Modeling Honors, Advanced Quantitative Reasoning, Calculus Honors, Advanced Math II Topics and Functions and Trigonometry. We also offer an enrichment opportunity in the Math Internship for advanced juniors and seniors to work as teacher assistants in the underclassmen classes.

Shrewsbury High School's Mathematics Department curriculum connects the Standards for Mathematical Practice to the Standards for Mathematical Content as set by the Massachusetts Frameworks. Reading, writing and speaking in mathematical terms are important aspects of all courses. Students are taught to read mathematical explanations and are encouraged to communicate in mathematical terms, both orally and in writing, to justify and explain solutions. Problem-solving is the central focus and is discussed in real-world context. This involves posing and defining problems, considering different strategies and finding appropriate mathematical models that make sense in the situation. Skills are taught through applications and connections to other curriculum areas, as well as through the integration of mathematical topics. Technology is incorporated into all courses through the use of various software applications & graphing calculators. Our goal is to empower students to develop as practitioners of Mathematics through thinking, reasoning, persevering, collaborating, & making connections when solving problems.

### Course Offerings:

Foundations of Algebra & Geometry	Functions & Trigonometry
Algebra and Geometry I	PreCalculus
Algebra and Geometry II	PreCalculus Honors
Algebra & Geometry IIB	Research Methods & PreCalculus Honors
Algebra and Geometry II Honors	Advanced Quantitative Reasoning
Algebra & Geometry II/Advanced Math I Honors	Advanced Math II Topics
Research Methods/Algebra & Geometry II/Advanced Math I Honors	Calculus Honors

Research Methods and Algebra & Geometry II Honors	Advanced Placement Statistics
Advanced Math I	Advanced Placement Calculus AB
Advanced Math IB	Advanced Placement Calculus BC
Advanced Math I Honors	Math Internship
Research Methods and Advanced Math I Honors	Mathematical Modeling Honors

### **Foundations of Algebra and Geometry (2046)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Full Year              Grades: 9-12                      A Level

Prerequisite: Teacher recommendation

This course will investigate and build upon the basic foundations of Algebra and Geometry in an approach that will enable students to make the connections necessary to apply their skills in a variety of application-based problems. The units of study will include patterns in data, patterns of change, linear functions, patterns in shape, and exponential functions. Important ideas are continually revisited for students to make connections and develop a lasting understanding of the mathematics they are studying. Students who are successful in this course will be expected to enroll in Algebra & Geometry I in their next course. This course will use ALEKS software to support students' work with the course curriculum as well as their work on cumulative math review topics. ALEKS will create a learning path for students based on their performance and work in ALEKS will help to remediate or expand their knowledge of the course content. A graphing calculator (TI-83 or TI-84) is recommended because it is used extensively.

### **Algebra and Geometry I (2010)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Full Year              Grades: 9-12                      A Level

Prerequisite: Teacher recommendation

This course will continue to investigate and build upon the basic foundations of Algebra and Geometry in an approach that will enable students to make the connections necessary to apply their skills in a variety of application-based problems. The units of study will include patterns in data, patterns of change, linear functions, patterns in shape, and exponential functions. Important ideas are continually revisited for students to make connections and develop a lasting understanding of the mathematics they are studying. This course will use ALEKS software to support students' work with the course curriculum as well as their work on cumulative math review topics. ALEKS will create a learning path for students based on their performance and work in ALEKS will help to remediate or expand their knowledge of the course content. A graphing calculator (TI-83 or TI-84) is recommended because it is used extensively.

### **Algebra and Geometry II (2011)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Full Year              Grades: 9-12                      A Level

Prerequisite: Past academic performance in Honors Algebra, Algebra I or Algebra & Geometry I and teacher recommendation.

This course is a continuation of the Algebra and Geometry I course. The units of study will include The Real Number System, Functions, Equations and Systems, Coordinate Methods, Regression and Correlation, Quadratic and other Non-Linear Functions and Equations, Probability, Trigonometric Methods and Matrix models. This course will use ALEKS software to support students' work with the course curriculum as well as their work on cumulative math review topics. ALEKS will create a learning path for students based on their performance and work in ALEKS will help to remediate or expand their knowledge of the course content. A graphing calculator (TI-83 or TI-84) is recommended because it is used extensively. Students who have completed Algebra and Geometry I or a full year Algebra I course must complete this course before continuing on to Advanced Math I.

### **Algebra and Geometry IIB (2011B)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Full Year                      Grades: 10-12                      B Level

Prerequisite: Past academic performance in Algebra or Algebra & Geometry I and teacher recommendation.

This course is a continuation of the Algebra and Geometry I course. The units of study will include The Real Number System, Functions, Equations and Systems, Coordinate Methods, Regression and Correlation, Quadratic and other Non-Linear Functions and Equations, Probability, Trigonometric Methods, and Matrix models. The students in this course will be a part of an Algebra and Geometry II class, however, the standards within the curriculum to be completed for mastery have been modified. This course will use ALEKS software to support students' work with the course curriculum as well as their work on cumulative math review topics. ALEKS will create a learning path for students based on their performance and work in ALEKS will help to remediate or expand their knowledge of the course content. A graphing calculator (TI-83 or TI-84) is recommended because it is used extensively. Students who have completed Algebra and Geometry I or a full year Algebra I course must complete this course before continuing on to Adv Math IB.

### **Algebra and Geometry II Honors (2032)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Full Year                      Grades: 9-12                      Honors

Prerequisite: Past academic performance in Honors Algebra, Algebra I or Algebra & Geometry I and teacher recommendation. A placement test may be used.

This course will investigate and build upon topics in Advanced Algebra and Geometry. The units of study will include Functions, Equations and Systems, Coordinate Methods, Regression and Correlation, Quadratic and other Nonlinear Functions and Equations, Probability, and Trigonometry. Students who have completed Algebra and Geometry I or a full year Algebra I course must complete this course before continuing on to Advanced Math I Honors. The students in the Honors level course are expected to develop independent thinking skills as they approach new situations and investigate topics in depth. This course will use ALEKS software to support students' work with the course curriculum as well as their work on cumulative math review topics. ALEKS will create a learning path for students based on their performance and work in ALEKS will help to remediate or expand their knowledge of the course content. A graphing calculator (TI-83 or TI-84) is recommended because it is used extensively.

### **Research Methods and Algebra & Geometry II Honors (2035)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective

Full Year

Grade: 9

Honors

Prerequisite: Teacher recommendation.

Must also be enrolled in Research Methods and Introductory Physics Honors or Research Methods and Biology Honors.

This course will investigate and build upon topics in Advanced Algebra and Geometry. The units of study will include Functions, Equations and Systems, Coordinate Methods, Regression and Correlation, Quadratic and other Nonlinear Functions and Equations, Probability and Trigonometric Methods. Students who have completed Algebra and Geometry I or a full year Algebra I course must complete this course before continuing on to Advanced Math I Honors. Students in the Honors level course are expected to develop independent thinking skills as they approach new situations and investigate topics in depth. This course will also incorporate research methods in Math and Science. Students will be required to complete a yearlong research project in the field of Math and/or Science under the guidance of their teachers. Students who sign up for this course must also sign up for Research Topics & Honors Biology. This course will use ALEKS software to support students' work with the course curriculum as well as their work on cumulative math review topics. ALEKS will create a learning path for students based on their performance and work in ALEKS will help to remediate or expand their knowledge of the course content. A graphing calculator (TI-83 or TI-84) is recommended because it is used extensively.

### **Algebra & Geometry II/Advanced Math I Honors (2047)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective

Full Year

Grades: 9-12

Honors

Prerequisite: Teacher Recommendation

This higher-level mathematics course will further the study of topics in Functions, Equations and Systems, Coordinate Methods, Regression and Correlation, Nonlinear Functions and Equations, Probability, and Trigonometry. The units of study will also include Reasoning and Proof, Inequalities and Linear Programming, Similarity and Congruence, Polynomial and Rational Functions, Circles and Circular Functions, Modeling Sequential Change, and Inverse functions. All of these topics will prepare students for the study of Pre-calculus and Calculus. Students in this accelerated Honors level course are expected to develop independent thinking skills as they approach new situations and investigate topics in depth. Students must demonstrate mastery in all of the course content in order to be recommended for Pre-Calculus Honors for the next year. This course will use ALEKS software to support students' work with the course curriculum as well as their work on cumulative math review topics. ALEKS will create a learning path for students based on their performance and work in ALEKS will help to remediate or expand their knowledge of the course content. Graphing calculator (TI-83 or TI-84) is recommended because it is used extensively.

### **Research Methods/Algebra & Geometry II/Advanced Math I Honors ( )**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective

Full Year

Grades: 9-12

Honors

Prerequisite: Teacher Recommendation



This higher-level mathematics course will further the study of topics in Functions, Equations and Systems, Coordinate Methods, Regression and Correlation, Nonlinear Functions and Equations, Probability, and Trigonometry. The units of study will also include Reasoning and Proof, Inequalities and Linear Programming, Similarity and Congruence, Polynomial and Rational Functions, Circles and Circular Functions, Modeling Sequential Change, and Inverse functions. All of these topics will prepare students for the study of Pre-calculus and Calculus. Students in this accelerated Honors level course are expected to develop independent thinking skills as they approach new situations and investigate topics in depth. ***Students must demonstrate mastery in all of the course content in order to be recommended for Pre-Calculus Honors for the next year.*** This course will also incorporate research methods in Math and Science. Students will be required to complete a yearlong research project in the field of Math and/or Science under the guidance of their teachers. Students who sign up for this course must also sign up for Research Topics & Honors Biology. This course will use ALEKS software to support students' work with the course curriculum as well as their work on cumulative math review topics. ALEKS will create a learning path for students based on their performance and work in ALEKS will help to remediate or expand their knowledge of the course content. Graphing calculator (TI-83 or TI-84) is recommended because it is used extensively.

### **Advanced Math I (2014)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Full Year                      Grades: 10-12                      A Level

Prerequisite: Algebra & Geometry I and II and teacher recommendation.

This higher-level mathematics course will further the study of topics in Advanced Algebra, Geometry and Trigonometry to prepare students for the study of Pre-calculus and Calculus. The units of study will include Reasoning and Proof, Inequalities and Linear Programming, Similarity and Congruence, Polynomial and Rational Functions, Circles and Circular Functions, Modeling Sequential Change, and Inverse functions. This course will use ALEKS software to support students' work with the course curriculum as well as their work on cumulative math review topics. ALEKS will create a learning path for students based on their performance and work in ALEKS will help to remediate or expand their knowledge of the course content. A graphing calculator (TI-83 or TI-84) is recommended because it is used extensively.

### **Advanced Math IB (2014B)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Full Year                      Grades: 10-12                      B Level

Prerequisite: Algebra & Geometry I and II or IIB and teacher recommendation.

This higher-level mathematics course will further the study of topics in Advanced Algebra, Geometry and Trigonometry to prepare students for the study of Pre-calculus and Calculus. The units of study will include Reasoning and Proof, Inequalities and Linear Programming, Similarity and Congruence, Polynomial and Rational Functions, Circles and Circular Functions, Modeling Sequential Change, and Inverse functions. The students in this course will be a part of an Advanced Math I class, however, the standards within the curriculum to be completed for mastery have been modified. This course will use ALEKS software to support students' work with the course

curriculum as well as their work on cumulative math review topics. ALEKS will create a learning path for students based on their performance and work in ALEKS will help to remediate or expand their knowledge of the course content. A graphing calculator (TI-83 or TI-84) is recommended because it is used extensively.

### **Advanced Math I Honors (2028)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Full Year                      Grades: 10-12                      Honors

Prerequisite: Past academic performance in Honors Algebra & Geometry II or Algebra & Geometry II and teacher recommendation. A placement test may be used

This higher-level mathematics course will further the study of topics in Advanced Algebra, Geometry and Trigonometry to prepare students for the study of pre-calculus and Calculus. The units of study will include Reasoning and Proof, Inequalities and Linear Programming, Similarity and Congruence, Polynomial and Rational Functions, Circles and Circular Functions, Modeling Sequential Change, and Inverse functions. Students in the Honors level course are expected to develop independent thinking skills as they approach new situations and investigate topics in depth. This course will use ALEKS software to support students' work with the course curriculum as well as their work on cumulative math review topics. ALEKS will create a learning path for students based on their performance and work in ALEKS will help to remediate or expand their knowledge of the course content. Graphing calculator (TI-83 or TI-84) is recommended because it is used extensively.

### **Research Methods and Advanced Math I Honors (2031)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Full Year                      Grades: 10-12                      Honors

Prerequisite: Past academic performance in Honors Algebra & Geometry II and teacher recommendation. Must also be enrolled in Research Topics and Honors Chemistry. A placement test may be used.

This higher-level mathematics course will further the study of topics in Advanced Algebra, Geometry and Trigonometry to prepare students for the study of PreCalculus and Calculus. The units of study will include Reasoning and Proof, Inequalities and Linear Programming, Similarity and Congruence, Polynomial and Rational Functions, Circles and Circular Functions, Modeling Sequential Change, and Inverse functions. Students in the Honors level course are expected to develop independent thinking skills as they approach new situations and investigate topics in depth. This course will also incorporate research methods in Math and Science. Students will be required to complete a yearlong research project in the field of Math and/or Science under the guidance of their teachers. Students who sign up for this course must also sign up for Research Topics & Honors Chemistry. This course will use ALEKS software to support students' work with the course curriculum as well as their work on cumulative math review topics. ALEKS will create a learning path for students based on their performance and work in ALEKS will help to remediate or expand their knowledge of the course content. Graphing calculator (TI-83 or TI-84) is recommended because it is used extensively.

### **Functions & Trigonometry (2036)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Full Year                      Grades: 11-12                      A Level

Prerequisite: Past academic performance in Algebra & Geometry II and Advanced Math I or Algebra & Geometry IIB and Advanced Math IB and teacher recommendation.

This course in higher-level mathematics will continue to explore multi-variable models, formalization of the concept of functions, function notation, domain and range. Students will use linear, exponential, quadratic and other polynomial functions to model situations. Trigonometric and logarithmic models will also be studied. This course will prepare students for Pre-Calculus or college level mathematics courses. Graphing calculator (TI-83 or TI-84) is highly recommended because it is used extensively.

### **Research Methods Pre-Calculus Honors (2045)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Full Year                      Grades: 11-12                      Honors

Prerequisite: Past academic performance in Honors Advanced Math I or Advanced Math I and teacher recommendation. A placement test may be used.

This pre-calculus course formalizes and extends important mathematical ideas drawn from the four strands of Algebra and Functions, Geometry and Trigonometry, Statistics and Probability and Discrete Mathematics. The focus will be on the Mathematics needed to be successful in college mathematics, Statistics, or Calculus courses. Topics studied will include the fundamental concepts underlying calculus and their applications including: rate of change, modeling motion, logarithmic, polynomial, and rational functions, conic sections. Emphasis will also be placed on manipulating symbolic representations of polynomial, rational, exponential, logarithmic, and trigonometric functions. Students who successfully complete this rigorous course are ready for Advanced Placement Calculus AB, Advanced Placement Calculus BC, or Advanced Placement Statistics. This course will also incorporate research methods in Math and Science. Students will be required to complete a yearlong research project in the field of Math and/or Science under the guidance of their teachers. Students who sign up for this course must also sign up for Research Topics & Honors Chemistry. A graphing calculator (TI-83 or TI-84) is recommended because it is used extensively.

### **PreCalculus (2017T)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Full Year                      Grades: 11-12                      A Level

Prerequisite: Past academic performance in Advanced Math I, Honors Advanced Math I, or Advanced Math IB & Functions & Trigonometry and teacher recommendation.

This pre-calculus course formalizes and extends important mathematical ideas drawn from the four strands of Algebra and Functions, Geometry and Trigonometry, Statistics and Probability and Discrete Mathematics. Focus will be on the Mathematics needed to be successful in college mathematics, Statistics, or Calculus courses. Topics will include the fundamental concepts underlying calculus and their applications including: rate of change, modeling motion, logarithmic, polynomial, and rational functions, conic sections. Emphasis will also be placed on manipulating

symbolic representations of polynomial, rational, exponential, logarithmic, & trigonometric functions. Graphing calculator (TI-83 or TI-84) is highly recommended because it is used extensively.

### **PreCalculus Honors (2018TT)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Full Year                      Grades: 11-12                      Honors

Prerequisite: Past academic performance in Algebra & Geometry II/Advanced Math I Honors, Advanced Math I Honors or Advanced Math I and teacher recommendation. A placement test may be used.

This pre-calculus course formalizes and extends important mathematical ideas drawn from the four strands of Algebra and Functions, Geometry and Trigonometry, Statistics and Probability and Discrete Mathematics. The focus will be on the Mathematics needed to be successful in college mathematics, Statistics, or Calculus courses. Topics studied will include the fundamental concepts underlying calculus and their applications including: rate of change, modeling motion, logarithmic, polynomial, and rational functions, conic sections. Emphasis will also be placed on manipulating symbolic representations of polynomial, rational, exponential, logarithmic, and trigonometric functions. Students who successfully complete this rigorous course are ready for Advanced Placement Calculus AB, Advanced Placement Calculus BC, or Advanced Placement Statistics. A graphing calculator (TI-83 or TI-84) is highly recommended because it is used extensively.

### **Advanced Quantitative Reasoning (2037T)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Full Year                      Grade: 12                      A-level

Prerequisite: Advanced Math I and PreCalculus or Advanced Math I and Functions & Trigonometry and teacher recommendation.

This course offers a project-based curriculum using a range of applied contexts while helping students develop college and career readiness skills such as collaborating, conducting research, and making presentations. We will build on, reinforce, and extend what students have learned in previous math courses, as well as cover a range of new mathematics topics, including probability, statistical studies, finance, functions, and numerical analysis. Additionally, the curriculum topics will be supplemented by web-based practice of skills necessary for college placement exams. The TI83 or TI84 graphing calculator is highly recommended.

### **Calculus Honors (2021)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Full Year                      Grade: 12                      Honors

Prerequisite: Past academic performance in PreCalculus or PreCalculus Honors and teacher recommendation. A placement test may be used.

A firm foundation in calculus is necessary for pursuing careers in science, mathematics, business, and some social sciences. The intent of the course is to teach the subject matter with a level of rigor suitable for the mainstream calculus student. This course is not designed for those wishing to take an Advanced Placement Test. The student must have a strong background in trigonometry,

coordinates, graphs, lines, functions, and algebraic manipulations. Topics include: functions and limits, differentiation, applications of differentiation, integration, applications of the definite integral, logarithmic and exponential functions, inverse and hyperbolic functions, and techniques of integration. Graphing calculator (TI-83 or TI-84) is highly recommended because it is used extensively. Summer work to review prerequisite material may be assigned (recommended but not required).

### **Advanced Placement Statistics (2023)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Full Year              Grade: 11-12                      Advanced Placement

Prerequisite: Past academic performance in Advanced Math I Honors, PreCalculus Honors or PreCalculus, strong teacher recommendation, successful completion of summer work.

This course will investigate the major concepts and tools for collecting, analyzing, and drawing conclusions from data. The four major conceptual themes are: 1) Exploring Data: Interpreting and analyzing graphical displays and descriptive statistics, 2) Sampling & Experimentation: Planning and conducting observational studies and experiments, 3) Probability and Simulation: Exploring random phenomena, and 4) Statistical Inference: Estimating population parameters and testing hypotheses. Summer work and an end-of-year project are required. Students are expected to take the AP exam in the spring. The focus throughout the year will be on preparation for the AP exam, with the goal of completing the curriculum with the rigor of a college level course. The TI-83/84 graphing calculator will be used extensively.

### **Advanced Placement Calculus AB (2022)**

*Meets Expectations for Student Learning: 1,2,3,4,7,8*

Elective                      Full Year              Grade: 12                      Advanced Placement

Prerequisite: Past academic performance in PreCalculus Honors, strong teacher recommendation, and successful completion of summer work. A placement test may be used.

A firm foundation in calculus is necessary for pursuing careers in science, mathematics, business, and some social sciences. AP Calculus should provide the building materials for success on the advanced placement exam, thus enabling those students who successfully complete this course to begin their college careers on firm footing. In order to have a successful year students must understand that calculus will involve a great deal of their time and energy during the year and in preparation for the AP exam. Topics to be studied include polynomial, trigonometric, logarithmic, and exponential functions and their graphs; limits; differentiation; integration; applications of each of these; definite integrals; and techniques of integration. A TI83 or TI84 graphing calculator is required. Summer reading and/or a special project may be required. Students are expected to take the Advanced Placement Exam in May.

### **Advanced Placement Calculus BC (2025)**

*Meets Expectations for Student Learning: 1,2,3,4,7,8*

Elective                      Full Year              Grade: 12                      Advanced Placement

Prerequisite: Past academic performance in PreCalculus Honors, strong teacher recommendation, and successful completion of summer work. A placement test may be used.

A firm foundation in calculus is necessary for pursuing careers in science, mathematics, business, and some social sciences. AP Calculus BC should provide the building materials for success on the advanced placement exam, thus enable those students who successfully complete this course to begin their college careers on firm footing. In order to have a successful year, students must understand that calculus will involve a great deal of their time and energy during the year and in preparation for the AP exam. Topics to be studied include polynomial, trigonometric, logarithmic, and exponential functions and their graphs; polar and parametric curves; limits; differentiation; integration; applications of each of these; definite integrals; basic and advanced techniques of integration; series. Summer reading and/or a special project may be required. Students are expected to take the Advanced Placement Exam in May. A graphing calculator (TI-83 or TI-84) is highly recommended because it is used extensively.

### **Mathematical Modeling Honors (2039)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Full Year                      Grade: 12                      Honors

Prerequisite: Completed or currently taking an AP Calculus course.

This course will introduce topics typically studied in undergraduate mathematics courses, such as Advanced Problem Solving, Number Theory and Linear Algebra. The course will be centered around problem-based learning where students will collaborate about and investigate topics through open-ended problem solving and computer simulations (using a software program such as Mathematica). Students will develop and use mathematical models to approach real-world problems across discipline areas. This course is meant for students who enjoy solving **challenging** mathematical problems and who are interested in learning strategies and background information for solving these problems. This course is for seniors who are currently enrolled in an AP Calculus course or for students who have already completed an AP Calculus course.

### **Advanced Math II Topics (2041)**

*Meets Expectations for Student Learning: 1,2,3,4,5,6,7*

Elective                      Full Year                      Grade: 12

Prerequisite: Advanced Math I, Advanced Math IB or Functions & Trigonometry

This senior mathematics course is meant for students who plan to attend college and who would like to develop their skill with standardized test-taking. The course will be based on a curriculum outlined by Quinsigamond Community College and aligned with content assessed on college placement exams. The mid-year and final exam will be developed by the QCC Mathematics Department but administered at Shrewsbury High School. Topics of study will include: Algebraic Reasoning, Linear Equations and Inequalities, Problem Solving, Systems of Equations, Operations with Exponents and Polynomials, Factoring Polynomials, Rational Expressions and Equations, Roots and Radicals and Quadratic Equations. All juniors who register for this course must take the Accuplacer test administered at Shrewsbury High School (Spring of junior and senior years) and must take both the midyear and final exams. Students who participate in an ACE internship, will still be required to finish this course.

## Math Internship (2026)

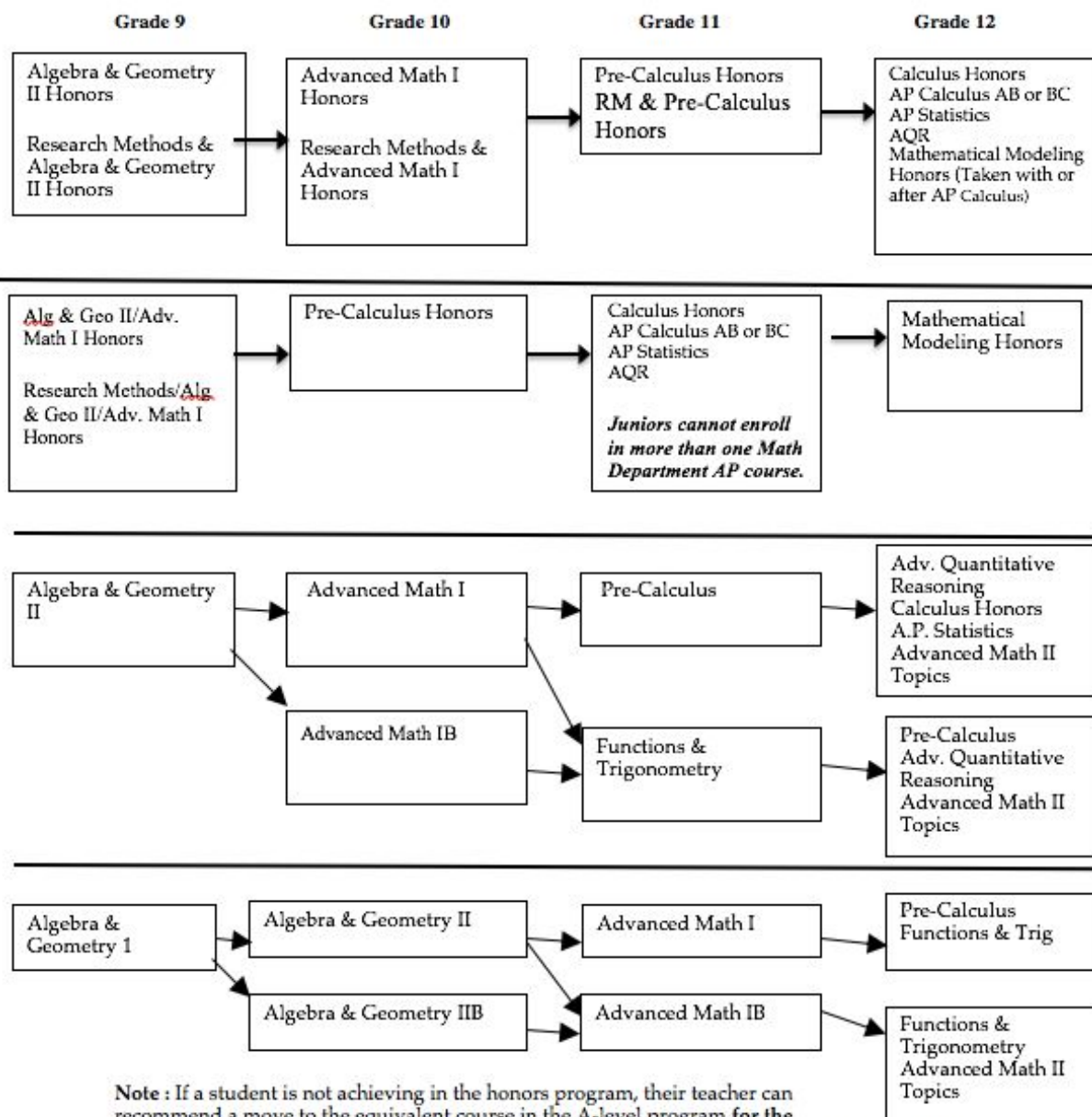
Meets Expectations for Student Learning: 1,2,3,4,7,8

Elective Semester Grades: 10-12 A Level

Prerequisite: Past academic performance in Advanced Math I, Advanced Math I Honors, PreCalculus or PreCalculus Honors and strong teacher recommendation.

Students will be assigned by the department director to work in an underclassmen class as an assistant to the teacher in that class. Interns will assist in their assigned class by helping students as needed with their questions on class work. The teacher may ask interns to facilitate work with small groups of students or create study guides and review materials with or for students. The intern may also assist students with the creation and organization of their notebooks and mathematics toolkits. Students who participate in this program will meet with their cooperating teacher and will complete monthly feedback forms. The grade for this class will be a pass/fail grade determined by attendance and the feedback forms completed by both the teacher and student.

### Mathematics Course Offerings and Possible Sequences



# Performing Arts Department

Mr. Tom O'Toole, Director

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The vision of the Shrewsbury High School Performing Arts Department is to instill in our students and community a life-long passion for the performing arts that promotes personal and professional artistic interests beyond high school graduation.

The mission of the Shrewsbury High School Performing Arts Department is to provide a creative curriculum with engaging, collaborative and inclusive opportunities that will inspire critical artistic thought and a personal passion for every student enrolled in a performing arts course.

## Course Offerings:

Orchestra	Techniques of Music Theory I
Honors Chamber Orchestra	AP Music Theory
Concert Band	Music Technology
Wind Ensemble Honors	History of American Music
Jazz Band Honors	Theatre Arts I
Freshman Choir	Theatre Arts II
Mixed Choir	Directing/Playwriting I
Mixed Choir Honors	Theatrical Design
Treble Choir Honors	Stage Combat
A Cappella Choir Honors	Voice in Acting
Foundations of Dance	Introduction to Guitar
Jazz (Dance) 1	Guitar Ensemble
Musical Theater Dance	iPad Ensemble
Movement for Theatre	World Drumming

## Orchestra (A-6000)

*Meets Expectation for Student Learning 1,2,3,4,5,6,7,8*

Elective                      Full Year                      Grades: 9-12                      A Level

Prerequisite: Experience with middle school Orchestra or equivalent. Previous class or private instruction.

Orchestra is a performance course available for violinists, violists, cellists, and bassists. This class explores concepts in musicianship, ear training, theory, music literacy, musical terminology, and music history as well as teaching leadership qualities. String-specific skills such as bow management, shifting, vibrato, tone production will also be explored. Students in Orchestra will rehearse and perform quality orchestra literature. The organization performs for school concerts throughout the year and often prepares for other venues, including competitions and festivals. Students are encouraged to audition for Central District and All-State Music Festivals. Performances



are an important component of this course and students are required to participate as part of their commitment to this group and part of their evaluation.

### **Honors Chamber Orchestra (H-6026)**

*Meets Expectation for Student Learning 1,2,3,4,5,6,7,8*

Elective                      Full Year                      Grades: 9-12                      Honors

Prerequisite: Selection by audition

Honors Chamber Orchestra is designed to develop a student's highest musical potential through performing advanced quality literature in orchestra repertoire. Students are selected for participation by audition held in the previous spring to ensure a well-balanced ensemble. Advanced concepts in ear training, theory, music literacy, musical terminology, and music history will be explored. The organization performs for school concerts throughout the year and often prepares for other venues, including competitions and festivals. Students are encouraged to audition for Central District and All-State Music Festivals. Performances are an important component of this course and students are required to participate as part of their commitment to this group and part of their evaluation.

### **Concert Band (6001)**

*Meets Expectation for Student Learning 1,2,3,4,5,6,7,8*

Elective                      Full Year                      Grades: 9-12                      A Level

Prerequisite: Experience with Middle School Bands or equivalent. Previous class or private instruction.

Concert Band is a performance course available for percussionists, brass, and woodwind players. This class explores concepts in musicianship, ear training, theory, music literacy, musical terminology, and music history as well as teaching leadership qualities. Students in Concert Band will rehearse and perform quality wind band literature. The organization performs for school concerts throughout the year, and often prepares for other venues, including competitions and festivals. Students are encouraged to audition for Central District and All-State Music Festivals. Performances are an important component of this course and students are required to participate as part of their commitment to this group and part of their evaluation.

### **Wind Ensemble Honors (6002)**

*Meets Expectation for Student Learning 1,2,3,4,5,6,7*

Elective                      Full Year                      Grades: 9-12                      Honors

Prerequisite: Selection by audition

Honors Wind Ensemble is designed to develop a student's highest musical potential through performing advanced quality literature in the wind band repertoire. Students are selected for participation by audition held the previous spring to ensure a well-balanced ensemble. Advanced concepts in ear training, theory, music literacy, musical terminology and music history will be explored. The organization performs for school concerts throughout the year, and often prepares for other venues, including competitions and festivals. Students are encouraged to audition for Central District and All-State Music Festivals. Performances are an important component of this course and students are required to participate as part of their commitment to this group and part of their evaluation. This course meets four days per cycle.

**Jazz Band Honors (6003T)**

*Meets Expectation for Student Learning 1,2,3,4,5,6,7,8*

Elective                      Full Year                      Grades: 9-12                      Honors

Prerequisite: Permission of Instructor.

Students participating in Jazz Band will play the music of studio, dance, jazz and rock bands. Pop-ballads, Latin, jazz, and rock concert arrangements are rehearsed and performed. Activities include reading from sheet music, analyzing melodic lines, jazz rhythms and chord progressions, and improvisation. This is a course intended primarily for band members. Any interested guitar, bass and keyboard players must audition for the instructor prior to acceptance. All rhythm, (including percussion), are limited to two per instrument. The organization performs for school concerts throughout the year, and often prepares for other venues, including competitions and festivals. Students are encouraged to audition for Central District and All-State Music Festivals. Performances are an important component of this course and students are required to participate as part of their commitment to this group and part of their evaluation. This course meets two days per cycle.

**Jazz Band Honors/Wind Ensemble Honors (6035)**

*Meets Expectation for Student Learning 1,2,3,4,5,6,7,8*

Elective                      Full Year                      Grades: 9-12                      Honors

Prerequisite: Selected by audition

Students participating in this accelerated course will rehearse and prepare quality literature for the full year, meeting 6 days per cycle. \*All content and requirements previously described for Honors Jazz Band and Honors Wind Ensemble apply.

**Jazz Band Honors/Concert Band Honors (6036)**

*Meets Expectation for Student Learning 1,2,3,4,5,6,7,8*

Elective                      Full Year                      Grades: 9-12                      Honors

Prerequisite: Permission of instructor

Students participating in this accelerated course will rehearse and play quality literature for the full year, meeting 6 days per cycle. \*All content and requirements previously described for Honors Jazz Band and Concert Band apply. Independent work will be monitored and assessed.

**World Drumming (6055)**

*Meets Expectation for Student Learning 1,2,3,4,5,6,7,8*

Elective                      Semester                      Grade: 9-12                      A Level

World drumming is the exploration of percussion instruments and traditions from a variety of cultures from around the world. This is a course where students use hands-on participation to communicate through percussion instruments, perform in drum circles, compose their own drum grooves and provide accompaniment for other arts. A majority of the activities will focus on the West African ensemble drumming, Caribbean drum ensembles and the songs that are sung along with the drumming. No drumming experience is required. Grading will be based on class performance, playing evaluations and written tests.

### **iPad Ensemble (6062)**

*Meets Expectation for Student Learning 1,2,3,4,5,6,7,8*

Elective                      Semester                      Grade: 9-12                      A Level

iPad Ensemble offers the student the opportunity to use the iPad as an instrument to learn to perform and read music, in both traditional and graphic notation. Throughout the course of the semester ensemble members explore new applications, new works and ways of notating music. Works performed in class range from transcriptions of traditional works, structured improvisation, aleatoric scores, and works written by students. Public performances are possible.

### **Introduction to Guitar (6038)**

*Meets Expectation for Student Learning 1,2,3,4,5,6,7*

Elective                      Semester                      Grades: 9-12                      A Level

Intro to Guitar is a one-semester designed to enhance students' appreciation for music through playing the guitar. The course will cover the basics of the instrument and an application of essential music theory fundamentals including music notation, chord symbols, and tablature. Students will study the role of the guitar in various genres including classical, blues, jazz, rock, and popular music.

### **Guitar Ensemble (6038T)**

*Meets Expectation for Student Learning 1,2,3,4,5,6,7*

Elective                      Semester                      Grades: 9-12                      A Level

Prerequisite: Successful completion of Introduction to Guitar or with permission of the instructor through demonstrated proficiency in reading standard music notation.

Guitar Ensemble is a continuation of the *Introduction to Guitar* course. The emphasis of this course will be on performance in various settings including large ensembles, quartets, trios, utilizing an expanded range of notes and rhythms. Students will also develop an understanding of basic concepts of music theory through composing and arranging projects.

### **Freshman Choir (6004T)**

*Meets Expectation for Student Learning 1,2,3,4,5,6,7,8*

Elective                      Full Year                      Grade: 9                      A Level

This course is available for all freshmen who have a desire to learn more about singing and performing with a high school vocal ensemble. All are accepted. Vocal techniques are developed and an emphasis is placed on, breath control, diction, posture, and intonation. Literature includes pop and show tunes, folk songs, spirituals, and classical selections for SAB, (SATB) voicing. This group performs for school concerts throughout the year. Students are encouraged to audition for MMEA music festivals. Performances are an integral component of this course and students are required to participate as part of their commitment to this group and part of their evaluation.

### **Mixed Choir (6005T)**

*Meets Expectation for Student Learning 1,2,3,4,5,6,7,8*

Elective                      Full Year                      Grades: 10 -12                      A Level

Students are selected for participation by audition to ensure a well-balanced ensemble. The music performed is written for four to six-part harmony. Students encounter music of many styles and

genres. This group performs for school concerts throughout the year. Students are encouraged to audition for MMEA musical festivals. Performances are an important component of this course and students are required to participate as part of their commitment to this group and part of their evaluation.

### **Mixed Choir Honors (6059)**

*Meets Expectation for Student Learning 1,2,3,4,5,6,7,8*

Elective                      Full Year              Grades: 10 -12                      Honors

Prerequisite: Placement by audition. A student must have taken Freshman choir to be eligible for sophomore year or one year of SHS choir. All are accepted to a vocal ensemble.

Students are selected for participation by audition to ensure a well-balanced ensemble. The music performed is written for four to six part harmony. Students encounter music of many styles and genres. This group performs for school concerts throughout the year. Students are encouraged to audition for MMEA musical festivals. Performances, small group assessments and classwork/assignments are important components of this course level and students are required to participate as part of their commitment to this group and part of their evaluation.

### **Treble Choir Honors (6037)**

*Meets Expectation for Student Learning 1,2,3,4,5,6,7,8*

Elective                      Full Year              Grades: 10-12                      Honors

Prerequisite: Placement by audition. \*All are accepted to a vocal ensemble.

Students are selected for participation by audition to ensure a well-balanced ensemble. The music is of an advanced level for three and four-part treble harmony. Students encounter music of many styles from early as well as modern composers. This group performs for school concerts throughout the year, and often prepares for other venues, including competitions and festivals. Students are encouraged to audition for MMEA music festivals. Performances, small group assessments and classwork/assignments are important components of this course level and students are required to participate as part of their commitment to this group and part of their evaluation.

### **A Cappella Choir Honors (6006)**

*Meets Expectation for Student Learning 1,2,3,4,5,6,7,8*

Elective                      Full Year              Grades: 10-12                      Honors

Prerequisite: Placement by audition. All are accepted to a vocal ensemble.

Students are selected for participation by audition to ensure a well-balanced ensemble. The music is of an advanced level for SATB and SATB divisi harmony. Students encounter music of many styles from early as well as modern composers, including vocal jazz. This group performs for numerous community events throughout the school year, in addition to scheduled concerts and home football games. Often the ensemble will perform at other venues, including competitions and festivals. Students are encouraged to audition for MMEA music festivals. Performances, small group assessments and classwork/assignments are important components of this course level and students are required to participate as part of their commitment to this group and part of their evaluation.

### **Techniques of Music Theory I (6007)**

*Meets Expectation for Student Learning 1,2,6,7,8*

Elective                      Semester              Grades: 9-12                      A Level

Prerequisite: Course placement is based on the teacher's recommendation and past academic performance.

Techniques of Music Theory is designed to introduce and improve skills of rhythmic and melodic sight-reading, ear training, and solfege, (sight singing). Additionally, this course will introduce the tools and vocabulary necessary for composing and analyzing music, and students will be taught basic piano skills. Students will be exposed to the realm of electronic music and composition through the use of the computer and synthesizer at the MIDI (musical instrument digital interface) workstation. This is a valuable course for any student who wishes to continue studying music after high school.

### **Advanced Placement Music Theory (6042)**

*Meets Expectation for Student Learning 1,2,6,7,8*

Elective                      Full Year              Grades: 10-12                      Advanced Placement

Prerequisite: Students should be able to read and write musical notation, and it is strongly recommended that the student has acquired at least basic performance skills in voice or on an instrument.

The AP Music Theory course corresponds to two semesters of a typical introductory college music theory course that covers topics such as musicianship, theory, musical materials, and procedures. Musicianship skills including dictation and other listening skills, sight-singing, and keyboard harmony are considered an important part of the course. Through the course, students develop the ability to recognize, understand, and describe basic materials and processes of music that are heard or presented in a score. Development of aural skills is a primary objective. Performance is also part of the learning process, with students learning to accurately sing short melodies from printed music. Students understand basic concepts and terminology by listening to and performing a wide variety of music. Students will also be able to write and analyze four-part vocal works in the style of the Common Practice period. Notational skills, speed, and fluency with basic materials are emphasized. Students are expected to take the Advanced Placement Exam in May.

### **History of American Music (6063)**

*Meets Expectation for Student Learning 1,2,3,4,5,6,7*

Elective                      Semester              Grades: 9-12                      A Level

Prerequisite: None

*History of American Music: Rock and Roll* is designed to explore one of our country's most powerful art forms. From its roots in blues, country, gospel, and R&B, Rock and Roll and its successor forms have touched all facets of our lives, private and public for over five decades. Rock and Roll is experienced not simply as a culture or sound, but also in cinematic and television culture, as well as literature, fashion, politics, dance, and more.

### **Music Technology (6008T)**

*Meets Expectation for Student Learning 2,3,4,6,7*

Elective                      Semester                      Grades: 9-12                      A Level

Music Technology is a fine arts-science course that will familiarize students with the principles and practices used in manipulating sound and music production. A variety of technology including the latest version of Apple's Logic Pro professional music production software, microphones, iPads, and MIDI controllers will be explored and utilized throughout the course. The process of mastering multi-tracked recordings will be developed, as will skills of sequencing and music composition through use of the MIDI workstation. Students will create an online portfolio of recorded works.

### **Theatre Arts I (6011)**

*Meets Expectation for Student Learning 1,2,3,4,5,6,7*

Elective                      Semester                      Grades: 9-12                      A Level

Theatre Arts is a one semester elective that is activity-based. Participants will learn basic performance skills incrementally, beginning with exercises in stage movement and improvisation. Although the exercise format continues through the semester, the focus shifts toward more formal acting skills. Character development and motivation are explored through small group scene study. This course culminates with a final one-act theatre presentation.

### **Theatre Arts II (6040)**

*Meets Expectation for Student Learning 1,2,3, 4, 5,6,7*

Elective                      Semester                      Grades: 10-12                      A Level

Prerequisite: Course placement is based on the teacher's recommendation and past academic performance.

This course is for serious drama students, and is a continuation of Theatre Arts Level I. Greater academic challenge will be provided through a variety of practical activities and projects that will include styles of dramatic literature, styles of acting, playwriting, voice, movement, and stage directing. Students will also work on projects that investigate the nature & drama of social issues as they continue to advance their stage skills. Opportunities for public performance will be provided.

### **Movement for Theatre (6013)**

*Meets Expectation for Student Learning 1,2,3,5,6,7*

Elective                      Semester                      Grades: 9-12                      A Level

Movement for Theatre is a course designed to familiarize students with various theatrical dance styles. A history of Broadway theater movement will be studied and students will experience the execution and design of choreography. No prior experience is required. Skills will be taught from warm ups to mini-combinations. Opportunities for studying guest artists will be presented (live or video).

### **Voice in Acting (6056)**

*Meets Expectation for Student Learning 1,2,3,4,5,6,7*

Elective                      Semester                      Grades: 9-12                      A Level

This class is an exploration of the student's voice. The main focus of the class is the learning of voice work as a preparation for performance (musical, theatrical, or class presentation) – a series of exercises designed to liberate the speaking voice from habitual psychophysical tension and develop

vocal range, stamina, clarity, power and sensitivity to impulse. Work will include discovery of sound in the body, awareness and opening of the channel (jaw, tongue, and soft palate), exploration of resonance, vocal freedom and range, isolating and strengthening resonating chambers and articulation exercises. Group and individual exercises designed to stimulate and develop the imagination, physical and sensory awareness, creativity and capacity for ensemble work will be practiced as a basis for vocal presence. Text work will include a monologue from a published play, poetry or a published musical theatre solo.

### **Theatrical Design (6034T)**

*Meets Expectation for Student Learning 1,2,3,4,6,7,8*

Elective                      Semester                      Grades: 9-12                      A Level

Theatrical Design will explore the design process of a show including set design, lighting design, costume/make-up design. Students will learn how to read and analyze a play for specific design elements. Students will design for two classroom productions selected by the instructor. No prior theatre knowledge is needed to register for this course. Students will be introduced to professional resources in the theatrical field.

### **Directing/Playwriting I (6050)**

*Meets Expectation for Student Learning 1,3,6,7,8,9,10,11*

Elective      Semester      Grade 10-12      A Level

This course is for students who are interested in how to write a play as well as exploring the basics of directing a play. Students will develop their craft through a series of hands-on exercises and will be able to workshop their ideas and writing samples in class. Students will be expected to take the lead on developing and directing their written piece(s) under the guidance of the faculty advisor. Opportunities for a public performance will be considered. **(Directing/Playwriting will not be offered during the 2019-2020 school year. It will be offered in 2020-2021 in place of Movement for Theater.)**

### **Foundations of Dance (6060)**

*Meets Expectation for Student Learning 1,2,3,5,6,7,*

Elective                      Semester                      Grades: 9-12                      A Level

Movement training helps to develop general body awareness, release unnecessary tension, and create strength and mobility. In this course students will explore movement improvisation that empowers the participant to be receptive to the immediate moment, to listen with the whole body, to make a spontaneous offer with confidence, to reconnect to imagination and to identify emotional states.

### **Stage Combat (6061)**

*Meets Expectation for Student Learning 1,2,3,5,6,7,*

Elective                      Semester                      Grades: 10-12                      A Level

Stage Combat is an introduction and exploration of technical and aesthetic aspects of stage combat. Our main goals are to develop the ability to safely portray violence onstage within the context of a play with specificity and dramatic power, as well as to understand how stage combat fits into the practice of theater as a whole. Other aspects include the development of strength and flexibility,

eye/hand coordination, understanding and applications of principles of safety in working with a partner, and learning how to advance your character journey and develop ensemble work through each individual move in a fight sequence

### **Musical Theater Dance (6064)**

*Meets Expectation for Student Learning 1,2,3,5,6,7,*

Elective                      Semester                      Grades: 9-12                      A Level .

This course explores *Musical Theatre Dance* and techniques to include vocabulary, technique and history. Pieces of original choreography from a variety of Broadway shows will be set in class.

### **Jazz Dance 1 (6065)**

*Meets Expectation for Student Learning 1,2,3,5,6,7,*

Elective                      Semester                      Grades: 9-12                      A Level

This will be a beginning level Jazz dance class designed for the student with little or no previous training. It can also serve as a refresher for those who have previous experience and will seek to create new challenges within the scope of the technique to further their abilities. Emphasis will be on learning and/or re-emphasizing basic jazz technique through specialized placement and alignment of the body, and performing stylized steps and moves.



## Science & Engineering Department

Mr. Dave Hruskoci, Director

Phone: 508-841-8836 Email: dhruskoci@shrewsbury.k12.ma.us

### Science

In this academic area, students learn more than the basic knowledge about specific sciences; students learn the lifelong skill of approaching a problem in a scientific manner. In our technology-based society with its rapid rate of change, having a solid science background will be an essential asset for students to make informed decisions.

Using the *Massachusetts Science and Technology/Engineering High School Standards*, *Next Generation Standards*, and *Common Core Standards* as guides for teaching practices, the Science & Engineering Department: (1) Builds on students' curiosity and existing knowledge by modeling questioning along with making connections between the present science course and ideas carried over from earlier studies and experiences. (2) Expands the inquiry approach to laboratory investigations. Often, investigations are open-ended, allowing students to move in directions that develop as students generate questions and find ways to answer their own questions. (3) Develops habits of mind that emphasize respect for evidence, persistence, open-mindedness and awareness of the effects of our actions on the surroundings in which we live. (4) Integrates technology, science, mathematics and human affairs to investigate complex problems faced in today's world. (5) Emphasizes the applications of all areas of science to our students' lives.

Students in ninth grade will take a discipline-specific Massachusetts Comprehensive Assessment System (MCAS) exams based on their enrollment in either Introductory Physics or Biology. Passing a science MCAS exam is a graduation requirement of the Commonwealth of Massachusetts.

### General Full Year Course Offerings

Intro Physics – Lab Level	Chemistry – Lab Level
Intro Physics – A Level	Chemistry – A Level
Intro Physics – Honors Level	Chemistry – Honors Level
Biology – Lab Level	Chemistry – Honors Research Methods
Biology – A Level	Physics – A Level
Biology – Honors Level	Physics – Honors
Biology – Honors Research Methods	Environmental Science – A Level / Honors
Human Anatomy & Physiology – Honors.	Principles of Biomedical Science

### ***Advanced Placement (AP) and Semester Electives***

<i>Advanced Placement – prerequisite(s)</i>	<i>Semester Electives (12<sup>th</sup> grade Only)</i>
AP Chemistry – Honors chemistry	Bio Ethics – A level / Honors
AP Physics –Hon. Physics or AP Science & Hon Adv. Math 1	Astronomy – A level / Honors
AP Biology – Hon. Bio <u>&amp;</u> Hon. Chem	Oceanography – A level / Honors
AP Environmental – Hon. Bio <u>&amp;</u> Chem	

#### **Lab Introductory Physics (3010TT)**

*Meets Expectations for Student-Learning: 1-7*

Elective                      Full Year                      Grades: 9-10                      B Level

Prerequisite: Course placement is based on the teacher's recommendation and past academic performance.

This course is a study of the essential, fundamental physical laws that govern our universe. Skills in laboratory procedures, quantitative manipulations, graphical interpretations, and scientific habits of mind are developed. Students learn the practical applications of major concepts in forces and motion, energy and momentum, heat, waves and electromagnetism. Teachers emphasize the close association between science and technologies and integrate appropriate technology applications. This course is considered a lab science.

#### **Introductory Physics (3011)**

*Meets Expectations for Student-Learning: 1-7*

Elective                      Full Year                      Grades: 9-10                      A Level

Prerequisite: Course placement is based on the teacher's recommendation and past academic performance.

Introductory Physics is a conceptual and mathematical study of fundamental physical laws that govern our universe. Skills in laboratory procedures, quantitative manipulations, graphical interpretations, and scientific habits of mind are developed. Course topics include forces and motion, energy and momentum, heat, waves and electromagnetism. Teachers emphasize the close association between science and technologies and integrate appropriate technology applications. This course is considered a lab science.

#### **Introductory Physics Honors (3012)**

*Meets Expectations for Student-Learning: 1-7*

Elective                      Full Year                      Grades: 9-10                      Honors

Prerequisite: Algebra I or Algebra/Geometry I - Course placement is based on the teacher's recommendation and past academic performance.

This course is for students who are recommended for an Honors level science course in grade 9, but will not be concurrently enrolled in Honors Algebra & Geometry II (or a higher level math course). Honors Introductory Physics is a study of the fundamental physical laws that govern our universe, stressing both concept and mathematical interpretation. Skills in laboratory procedures, quantitative manipulations, graphical interpretations, and scientific habits of mind are developed

and applied. Course topics include forces and motion, energy and momentum, heat, waves and electromagnetism. Teachers emphasize the relationship between evidence and models, and integrate appropriate technology applications. Students are expected to complete additional projects or conduct additional research that compliments their work in class. This course is considered a lab science.

### **Lab Biology (3018T)**

*Meets Expectations for Student-Learning: 1-7*

Elective                      Full Year                      Grades: 10-12                      B Level

Prerequisite: Introductory Physics and teacher recommendation.

This course is designed to give students an introduction to the most essential concepts related to ecology, chemistry of life, cell structure and function, genetics, evolution and biodiversity, as well as selected topics in anatomy and physiology. Practical laboratory exercises following the scientific method will provide students with experiences in biological problem solving. These exercises are designed to reinforce the material taught & discussed in class. Course is considered a lab science.

### **Biology (3019)**

*Meets Expectations for Student-Learning: 1-7*

Elective                      Full Year                      Grades: 10-12                      A Level

Prerequisite: Introductory Physics and teacher recommendation.

Biology is designed to give students an introduction to ecology, chemistry of life, cell structure and function, genetics, evolution and biodiversity, as well as selected topics in anatomy and physiology. Practical laboratory exercises following the scientific method will provide the student with experiences in biological problem solving. These exercises are designed to reinforce the material taught and discussed in class. This course is considered a lab science.

### **Biology Honors (3020)**

*Meets Expectations for Student-Learning: 1-7*

Elective                      Full Year                      Grades: 9-11                      Honors

For Grade 9 students: Co-requisite = Honors Algebra & Geometry II (or higher level math course), teacher recommendation and past academic performance. For grades 10-12 students: prerequisite = teacher recommendation and past academic performance. Honors Biology is a course designed for students who demonstrate high academic achievement and motivation in science and mathematics. Students will be expected to complete a significant amount of reading and writing assignments, as well as quantitative and qualitative analysis of laboratory work. Topics emphasized include ecology, chemistry of life, cell structure and function, genetics, evolution and biodiversity, as well as selected topics in anatomy and physiology. An independent or team research project will be completed. This course is considered a lab science.

### **Research Methods and Biology Honors (3058)**

*Meets Expectations for Student-Learning: 1-7*

Elective                      Full Year                      Grades: 9                      Honors

Co-requisite: Research Methods Honors Algebra and Geometry II. Course placement is based on the teacher's recommendation and past academic performance.

Students will be required to complete a year-long, independent research project in the field of science and/or math under the guidance of their teachers. Students who sign up for this course must also sign up for Research Methods & Honors Algebra and Geometry II. This course covers the same curriculum content as Honors Biology with an added emphasis on integrating concepts from Honors Algebra and Geometry II with scientific data developed in and out of the classroom. Note: this course meets for an extra period two days out of the 7-day cycle only during 1<sup>st</sup> semester. All research methods students are expected to participate in the school science fair which takes place in February. This course is considered a lab science.

### **Lab Chemistry (3024)**

*Meets Expectations for Student-Learning: 1-7*

Elective                      Full Year              Grades: 11-12                      B Level

Prerequisite: Teacher recommendation.

This class is designed to give students an introduction to the most essential concepts related to the structure and composition of substances and the changes the substances undergo. Topics include properties of matter, atomic structure, bonding, reactions, basic stoichiometry, gases, solutions, and acids and bases. Emphasis is placed on experimentation, use of scientific method and applications of chemistry to the world. Daily assignments and activities engage students in the application of chemistry, making attendance imperative.

### **Chemistry (3025)**

*Meets Expectations for Student-Learning: 1-7*

Elective                      Full Year              Grades: 10-12                      A Level

Prerequisite: Teacher recommendation.

Chemistry is the science dealing with the structure and composition of substances and the mechanisms by which changes in composition occur. Topics include properties of matter, atomic structure, periodicity, chemical bonding, reactions and stoichiometry, behavior of gases, solutions, acids and bases, and selected topics in equilibrium, kinetics, thermochemistry, and electrochemistry. Emphasis is placed on experimentation, use of the scientific method, problem solving and the applications of chemistry to the world. Daily assignments and activities engage students in the applications of chemistry. This course is considered a lab science.

### **Chemistry Honors (3026)**

*Meets Expectations for Student-Learning: 1-7*

Elective                      Full Year              Grades: 10-12                      Honors

For grade 10 students: prerequisite = Honors Algebra/Geometry II or co-enrollment in Honors Advanced Math 1 (or higher), and teacher recommendation. For grade 11-12 students: Prerequisite = Honors Adv. Math 1 or co-enrollment in Honors Pre-Calc (or higher).

Honors Chemistry is designed to prepare students for AP Chemistry. This course addresses the structure and composition of substances and the mechanisms by which changes in composition occur. Content focuses on similar topics as those addressed in A level Chemistry, but coverage is in

greater depth, and at a faster pace compared to the A level course. Topics include properties of matter, atomic structure, periodicity, chemical bonding, reactions and stoichiometry, behavior of gases, solutions, acids and bases, equilibrium, kinetics, thermochemistry, and electrochemistry. Emphasis is placed on experimentation, use of the scientific method, problem solving and the applications of chemistry to the world. A high level of self-discipline is required for the completion of independent assignments. Strong mathematical reasoning is essential for success in this course. This course is a lab science.

### **Research Methods and Chemistry Honors (3038)**

*Meets Expectations for Student-Learning: 1-7*

Elective                      Full Year                      Grades: 10-11                      Honors

Co-requisite: Research Methods Honors Advanced Math 1, and teacher recommendation.

Students will be required to complete a yearlong research project in the fields of science, engineering or math under the guidance of their teachers. Students who sign up for this course must also sign up for Research Methods & Honors Advanced Math I. This course covers the same content as Honors Chemistry. Note: this course meets for an extra period two days out of the 7-day cycle only during 1<sup>st</sup> semester. All research methods students are expected to participate in the school science fair which takes place in February. This course is considered a lab science. This course is considered a lab science.

### **Physics (3015)**

*Meets Expectations for Student-Learning: 1-7*

Elective                      Full Year                      Grades: 11-12                      A Level

Prerequisite: Advanced Math I and teacher recommendation.

Physics is a course that builds students' conceptual understanding of physical principles and complements this understanding with mathematical applications. Students considering a career in any scientific field will benefit from having physics at the high school level prior to encountering it for the first time in college. Topics include forces and motion, energy and momentum, waves, light and sound, and electricity. This course includes training in reasoning, as well as instruction in the concepts of physics. There will be project-based experiences as well as traditional laboratory work requiring both traditional methods and computer-assisted data acquisition and analysis techniques. This course is considered a lab science.

### **Physics Honors (3016)**

*Meets Expectations for Student-Learning: 1-7*

Elective                      Full Year                      Grades: 11-12                      Honors

Prerequisite: Honors Advanced Math I OR Co-requisite: Honors Pre-Calculus (or higher honors math course) and teacher recommendation.

Honors Physics is a course that builds students' conceptual understanding of physical principles and complements this understanding with mathematical applications. Areas covered in this course are: vectors vs. scalars, graphical analysis of motion, mechanics: kinematics and dynamics, conservation of momentum, conservation of energy, circular motion, the universal law of gravitation, planetary motion, waves: light and sound, electrostatics, basic DC electricity, and

magnetism. An inquiry approach is taken with laboratory work. Laboratory experiences will include traditional and computer-assisted data acquisition and analysis techniques. A high level of self-discipline is required for the completion of independent assignments. Strong mathematical reasoning is essential for success in this course. This course is considered a lab science.

### **Environmental Science (A-3041F, H-3048F)**

*Meets Expectations for Student Learning: 1-7*

Elective                      Full Year              Grades: 11-12                      A Level

Prerequisite: Biology and Chemistry and teacher recommendation.

In this course students study the connection between the human population and the use of the Earth's resources. Topics include fresh water sources and pollution, air quality and climate change, land use and agriculture, renewable and non-renewable resources, waste, recycling and governmental policy (both domestic and internationally). Students will participate in and complete selected research projects and laboratory investigations that require a basic understanding of chemistry (the periodic table and reactions) and ecology (biomes and diversity). Honors students will be expected to do extensive and sustained independent research and analysis outside of class and present their findings in written, visual and oral formats. This course is considered a lab science.

### **Human Anatomy and Physiology Honors (3022T)**

*Meets Expectations for Student-Learning: 1-7*

Elective                      Full Year              Grades: 11-12                      Honors

Prerequisite: Honors Biology and Honors Chemistry or A level Chemistry and teacher recommendation.

This is a rigorous course for students interested in any healthcare field, scientific research or biology in general. Learning experiences are designed to explore the anatomy (structure) and physiology (function) of each of the systems in the human body, as well as topics such as nutrition and exercise as they relate to physiology. The laboratory component of this course includes a significant amount of animal dissection in order to model the anatomy of the human body. These dissections are important as they provide hands-on learning experiences that allow students to practice the skill of applying content to the real world. Students who may be uncomfortable with the graphic nature of studying organ tissues up close should strongly consider whether or not this is an appropriate course selection. This course is considered a lab science.

### **Advanced Placement Physics 1 (3071)**

*Meets Expectations for Student-Learning: 1-7*

Elective                      Full Year              Grades: 11 -12                      Advanced Placement

Prerequisite: Honors Physics or AP Chemistry or AP Biology or AP Environmental and Honors Pre-Calculus and teacher recommendation.

Advanced Placement Physics 1 is an algebra-based, introductory college-level physics course. The course covers Newtonian mechanics (including rotational dynamics and angular momentum), work, energy, power, mechanical waves, sound and an introduction to electric circuits. See <http://apcentral.collegeboard.com> for more information. Students need to be proficient with

algebra and trigonometry for this course. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills. This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices. Students are expected to take the AP Physics 1 version of the Advanced Placement Exam in May. A summer assignment is required. Note: this course meets for an extra period two days out of the 7-day cycle. This course is considered a lab science.

### **Advanced Placement Biology (3021)**

*Meets Expectations for Student-Learning: 1-7*

Elective                      Full Year                      Grades: 11-12                      Advanced Placement

Prerequisite: Honors Biology and Honors Chemistry and teacher recommendation.

This course is designed to be the equivalent of a first year college biology course given to science majors (see <http://apcentral.collegeboard.com>). By achieving a certain proficiency on the Advanced Placement examination given in May, credit may be granted at a number of colleges. Using a college textbook, the course is a fast-paced and in-depth study of the fundamentals of biology and focuses on the requirements established by the College Board. A minimum of eight inquiry-based laboratory experiments will be completed during the year. Each lab involves considerable analysis of data. Summer reading and/or a special project are required. Students are expected to take the Advanced Placement Exam in May. This course is an excellent review for material on the SAT II. Note: this course meets for an extra period two days out of the 7-day cycle. This course is considered a lab science.

### **Advanced Placement Chemistry (3027)**

*Meets Expectations for Student-Learning: 1-7*

Elective                      Full Year                      Grades: 11-12                      Advanced Placement

Prerequisite: Honors Chemistry and Honors Advanced Math 1 (or higher math course), teacher recommendation and past academic performance.

Advanced Placement Chemistry is designed to be the equivalent of a rigorous college general chemistry course and focuses on the requirements established by the College Board (See <http://apcentral.collegeboard.com>). Emphasis will be on the quantitative reasoning and problem-solving skills necessary to explain chemical phenomena and enable predictions. Topics include: solution and gas stoichiometry, modern atomic theory, chemical bonding, colligative properties, chemical kinetics, thermochemistry and thermodynamics, chemical equilibrium, reaction prediction and electrochemistry. Laboratory work largely focuses on structured, guided and open inquiry-based experiments. AP Students will be expected to write explanations to non-quantitative questions based on their developed knowledge of chemical principles, and to conduct mathematical manipulations in preparation for the AP Chemistry exam given in May. Summer work and/or a special project may be required. The course can be taken in either the junior or senior year. Students are expected to take the Advanced Placement Exam in May. Note: this course meets for an extra period two-days out of a 7-day cycle. This course is considered a lab science.

### **Advanced Placement Environmental Science (3030)**

*Meets Expectations for Student-Learning: 1-7*

Elective                      Full Year                      Grades: 11-12                      Advanced Placement

Prerequisite: Honors Biology and Chemistry and teacher recommendation.

This course is designed to be the equivalent of a one semester, introductory college course in environmental science. (see <http://apcentral.collegeboard.com>). By achieving a certain proficiency on the Advanced Placement examination given in May, credit may be granted at a number of colleges. The course is a fast-paced and in-depth study of Environmental Science and focuses on the requirements established by the College Board. Topics include: Earth systems and resources, the living world, populations, land & water use, energy resources & consumption, pollution, and global changes. This course includes field lab investigations. Summer work and/or a special project may be required. Students are expected to take the Advanced Placement Exam in May. Note: this course meets for an extra period two days out of the 7- day cycle. This course is considered a lab science.

### **Principles of Biomedical Science (3075)**

*Meets Expectations for Student-Learning: 1-7*

Elective                      Full Year                      Grades: 9-12                      A Level

Prerequisite: Course placement is based on the teacher's recommendation and past academic performance.

In this *Project Lead The Way* course students explore concepts of biology and medicine to determine factors that led to the death of a fictional person. While investigating the case, students examine autopsy reports, investigate medical history, and explore medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, basic biology, medicine, and research processes while allowing them to design their own experiments to solve problems. This course is considered a lab science.

### **Oceanography (A-3068, H-3070)**

*Meets Expectations for Student-Learning: 1-7*

Elective                      Semester                      Grades: 11-12                      A Level or Honors

Prerequisite: Course placement is based on the teacher's recommendation and past academic performance.

In this course students explore the physical and biological features of Earth's oceans. Topics include the ecology of various aquatic ecosystems, ocean chemistry, tidal mechanics, marine life, threats to our oceans, and conservation of the oceans. Honors students will be expected to do extensive and sustained independent research and analysis outside of class and present their findings in written, visual and oral formats. This course is considered a semester lab science.

### **Astronomy (A-3013T, H-3049)**

*Meets Expectations for Student-Learning: 1-7*

Elective                      Semester                      Grades: 11-12                      A Level or Honors

A level Prerequisite: Teacher recommendation.

Honors level Prerequisite: Functions and Trig. or Pre-Calculus and teacher recommendation



In this course students study the structure of our solar system, galaxy and the universe. Students research the various contributions that ancient civilizations have made to the field of astronomy and how increased technology throughout history has helped our knowledge and understanding of the origins and structures of planets, stars, galaxies and the universe. Honors students will be expected to do extensive and sustained independent research and analysis outside of class and present their findings in written, visual and oral formats. Honors students are also required to attend 2 evening observations at the high school and complete 1 long-term independent observation experiment per quarter. This course is considered a semester lab science.

### Bioethics (A-3023, Honors-3028)

*Meets Expectations for Student-Learning: 1-7*

Elective

Semester

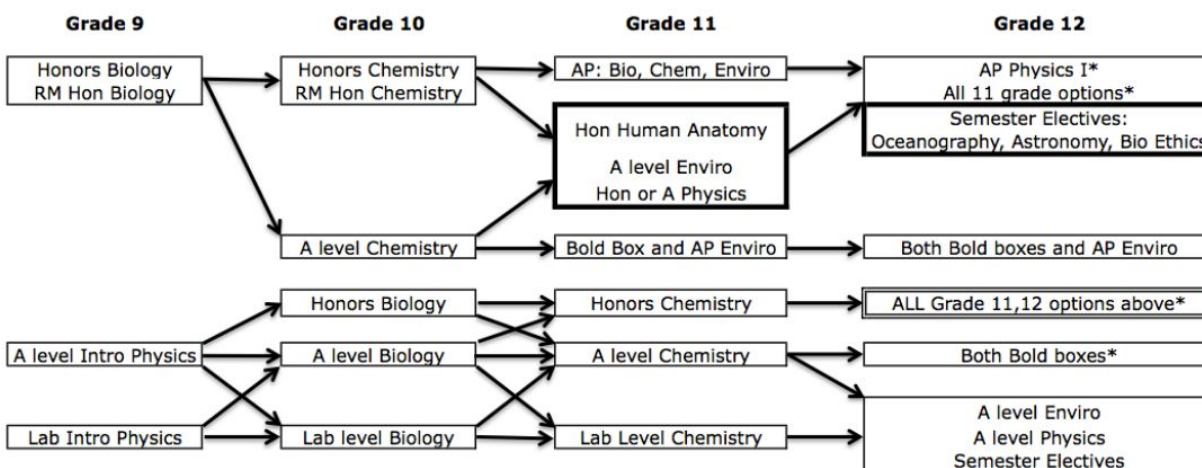
Grade: 12

A Level or Honors

Prerequisite: Biology and teacher recommendation.

Bioethics provides students with an opportunity to examine and discuss the social, ethical and legal dilemmas that arise from advances in medicine and biotechnology. Topics include organ donation and transplantation, abortion, assisted reproduction, euthanasia and assisted suicide, death and dying, environmental ethics, medical ethics, animal research and genetic technologies. Position papers on selected topics are assigned as part of the curriculum. Honors students will be expected to do extensive and sustained independent research and analysis outside of class and present their findings in written, visual and oral formats.

## Science Course Offerings and the Most Common Sequences



\* Please refer to specific course Descriptions for prerequisite information

## Engineering

Students in engineering classes learn how technology draws from science and mathematics to fashion products that solve practical problems encountered in our lives. Whether the student is learning about established processes or developing new technological processes, the engineering protocol becomes evident in each technology education course. This protocol entails:

- Identifying a need that can be addressed by technological inventions or innovations.
- Using mathematical and scientific background along with creativity to fashion solutions that address the need.
- Visualizing solutions in graphical form in two and three dimensions.
- Building prototypes to test and redesign based on the outcome of preliminary testing results.
- Making engineering presentations of the solution.
- Considering the societal impacts and tradeoffs of the new technology.

The varied course selections offered in Engineering provide all students with opportunities to explore technology, solve problems, develop effective and safe work habits, gain an appreciation for the engineering design process, work cooperatively with others and apply knowledge in a practical manner. Four important areas of Engineering are emphasized: 1) communication, 2) design 3)/manufacturing and 4) power/energy/transportation.

In addition to semester electives, the Engineering department offers three courses from the national *Project Lead the Way* curriculum. These courses offer a rigorous introduction to, and exploration of, the field of engineering.

### Course Offerings:

Exploring Technology (1 semester)	*Introduction to Engineering Design (IED)
Robotics/Electronics (1 semester)	*Principles of Engineering (POE) grade 10-12
Engineering the Future (Full Year)	*Digital Electronics (DE) grade 10-12

\* *Project Lead the Way* course

### Exploring Technology (5202)

*Meets Expectation for Students Learning: 1-7*

Elective                      Semester                      Grades: 9 -12                      A Level

This course runs during the first semester. It is designed to offer the student an exploratory experience in general technology. Students rotate through ten different modular workstations where they gain technological knowledge by performing hands-on activities in the fields of: construction, basic electricity, electronic communications, hydraulics, pneumatics, materials and processes, mechanisms, research and design, aerodynamics, and alternative energy. Students will also use the engineering design process to identify a design problem within constraints, evaluate ideas, build and test prototypes. This course can fulfill part of the science credit requirement for graduation.

### **Robotics/Electronics (5210)**

*Meets Expectation for Students Learning: 1-7*

Elective                      Semester              Grades: 9-12                      A Level

This course runs during the second semester. Robots are devices that have the intelligence to interpret information, make decisions, and then effect their environment. The fundamentals of electrical circuits (i.e. components and configurations) will be examined through class-work and hands-on activities, including circuit construction. Students in this class will also explore the relationship between humans, computers, and machines by utilizing the engineering design process to design and fabricate robotic devices. No previous background is required.

### **Engineering the Future (5221TT)**

*Meets Expectation for Students Learning: 1-7*

Elective                      Full Year              Grades: 9-12                      A Level

This course is a year-long implementation of the *Engineering the Future* curriculum developed by the Boston Museum of Science and provides students with an introduction to engineering and technology through hands-on activities, cooperative learning and problem-solving. Students will use the engineering design process to design and build projects in the following units: design and manufacturing, thermal and fluid systems, electricity and communications, and construction and integrated systems. This course can fulfill part of the science credit requirement for graduation.

### **Introduction to Engineering Design (IED) (5229T)**

*Meets Expectation for Students Learning: 1-7*

Elective                      Full Year              Grades: 9-12                      A Level

Prerequisite: Algebra I or Algebra/Geometry I

Using the nationally recognized *Project Lead the Way* hands-on curriculum, students will explore the Engineering Design Cycle in problem-based projects. They will also learn to use sophisticated three-dimensional modeling software to create and communicate the details of their products. Emphasis is placed on analyzing potential solutions and communicating ideas to others. This engineering course is designed to enable students to explore the field as a career choice and provides the rigorous, relevant training required to excel in any related post-secondary program. This course is recommended as the first course in the *Project Lead the Way* engineering sequence and can fulfill part of the science credit requirement for graduation.

### **Principles of Engineering Honors (POE) (5228)**

*Meets Expectation for Students Learning: 1-7*

Elective                      Full Year              Grades: 10-12                      Honors

Prerequisite: Algebra/Geometry II

Using the nationally recognized *Project Lead the Way* hands-on curriculum, students explore the wide variety of engineering and technology principles in the areas such as mechanisms, thermodynamics, electrical systems and materials testing. Using activities, projects and problem solving, students investigate the integration of math, science, and technology in engineering applications. This engineering course is designed to enable students to explore the field as a career

choice and provides the rigorous, relevant training required to excel in any related post-secondary program. This course can fulfill part of the science credit requirement for graduation.

### **Digital Electronics Honors (DE) (5233)**

*Meets Expectation for Students Learning: 1-7*

Elective                      Full Year                      Grades: 10-12                      Honors

Prerequisite: Algebra/Geometry II

Using the nationally recognized *Project Lead the Way* hands-on curriculum students use problem-solving models to investigate applied logic and the applications of electronic circuits and devices. Projects focus on the investigation of basic analog and digital circuitry. Computer simulation software is used to design and test digital circuitry prior to the actual construction of circuits and devices. This engineering course is designed to enable students to explore the field as a career choice and provides the rigorous, relevant training required to excel in any related post-secondary program. This course can fulfill part of the science credit requirement for graduation.

## Social Sciences Department

Ms. Jennifer DiFrancesca, Director

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The Social Sciences are rooted in a diverse but common heritage, and together they offer insights into the nature and causes of political affairs, social and economic patterns, and human behavior. Critical inquiry about man, society, and history generates a broad awareness and deeper understanding of the human experience. The social sciences encourage students to develop an interdisciplinary perspective of the world around them through the study of history, literature, economics, society, philosophy, and psychology.

In all of the courses offered by the SHS Social Sciences Department, students are provided with challenging and diverse learning opportunities, which encourage them to explore their role in and relationship to their local community, country and the world. Students also examine issues of individualism, socio-economic class, race, nationalism and globalization. In addition, students will develop their ability to research effectively, think critically and to express their ideas in written, visual and oral formats. Our goal as Social Science teachers is to empower students to be active, capable and caring contributors to the world in which they live.

World Civilizations, United States History I and United States History II are aligned with the content, concepts and skills outlined in the *Massachusetts History and Social Science Frameworks*. The elective courses offered by the Social Sciences Department also incorporate the concepts and skills outlined in the *Massachusetts History and Social Science Frameworks*.

### Course Offerings:

World Civilizations	American Government
U.S. History I	America and the World Today
U.S. History II	Economics
U.S. History II: American Studies	Global Studies
Social Science Internship	Psychology
Advanced Placement United States History	Sociology
Advanced Placement Human Geography	World Religions
Advanced Placement Psychology	The World at War
Exploring Family History	Law & Order
Pop Culture	Sports in America

## **World Civilizations (4019)**

*Meets Expectations for Student-Learning: 1,2,3,4,6,7*

Required      Full Year      Grade: 9      A Level

In the first semester, students will investigate European history from 1500 until 1900. Units of study will include the Enlightenment, Absolute Monarchs, the French Revolution, the Rise of Nation States and the Industrial Revolution. The second semester will include an examination of world events from the 1800s through the late 20th century. Units of study will include Imperialism, World War I and its aftermath, World War II, the Cold War and the World Today. Politics and diplomacy will be studied as well as the social, economic, religious, scientific and technological factors that have shaped world history. Students will develop skills in working with primary sources, research, discussion, reading, and writing. Throughout the year, students will connect their learning to current events. Assessment strategies will include written and oral presentations, objective questions, open-response questions, and research projects.

## **U.S. History I (A-4036, Honors-4018)**

*Meets Expectations for Student-Learning: 1,2,3,4,6,7*

Required      Full Year      Grade: 10      A Level or Honors

Prerequisite: Course placement is based on the teacher's recommendation and past academic performance.

This is the first year of a two-year course in American history. Following a chronological approach, the course will begin with the colonial era and conclude with the post-Civil War American West. Students will study the causes and consequences of the American Revolution, as well as the development of the Constitution. Other topics of study will include the early national period, the reform movements of the 1800s, Jacksonian democracy, westward expansion, the Civil War and Reconstruction. The core content is the same for both the Honors and A-level courses, however, the pace and focus on skills will be different. Honors level students will read more in-depth primary and secondary source documents, as well as participate in more independent learning. All students will continue to develop their skills working with primary sources, research, discussion, reading, and writing. Throughout the year, all students will connect their learning to current events. Assessment strategies for all students will include written and oral presentations, objective questions, open-response questions, and research projects.

## **U.S. History II (A-4021T, H-4017T)**

*Meets Expectations for Student-Learning: 1,2,3,4,6,7*

Required      Full Year      Grade: 11      A Level or Honors

Prerequisite: Course placement is based on the teacher's recommendation and past academic performance.

This is the second year of a two-year course in American history. Following a chronological approach, the course will begin with the Gilded Age and conclude with America in the 21<sup>st</sup> century. Students will study the causes and consequences of the 2<sup>nd</sup> Industrial Revolution, as well as the development of the modern civil rights movement. Other topics of study will include US foreign policy in the 20<sup>th</sup> century, the Jazz Age, the Great Depression, the Cold War, and the 1950s. The core content is the same for both the Honors and A-level courses, however, the pace and focus on skills

will be different. Honors level students will read more in-depth primary and secondary source documents, as well as participate in more independent learning. All students will continue to develop their skills working with primary sources, research, discussion, reading, and writing. Throughout the year, all students will connect their learning to current events. Assessment strategies for all students will include written and oral reports, objective questions, open-response questions, and research projects questions.

### **U.S. History II: American Studies (A-4034, H-4035)**

*Meets Expectations for Student-Learning: 1,2,3,4,6,7*

Required      Full Year      Grade: 11      A Level or Honors

Prerequisite: Course placement is based on the teacher's recommendation.

American Studies includes the core content of eleventh grade English and U. S. History II, but focuses on the relationship between the two by studying them together in an environment that emphasizes collaborative and independent learning. Classes are scheduled during consecutive periods, providing flexibility in grouping and allowing for some common assessments. Students will examine themes such as gender roles, racial identity, and war as well as technological and social developments. Throughout the year, students will be expected to demonstrate growth as critical thinkers, readers, and writers as well as their ability to take personal responsibility for their learning when engaged in aspects of Project Based Learning. Honors students will be expected to do extensive and sustained independent research and analysis outside of class and present their findings in written, visual and oral formats. *Students who register for this course must also register for English 11: American Studies at the same level.*

### **Advanced Placement United States History (4013)**

*Meets Expectations for Student-Learning: 1,2,3,4,6,7*

Elective      Full Year      Grade: 11      Advanced Placement

Prerequisite: Course placement is based on the teacher's recommendation and past academic performance. Standardized test scores & placement test scores may also be used.

AP US History is designed to provide students with the analytical skills and factual knowledge necessary to deal with issues in United States history from the age of discovery to the present. It is also designed to prepare students for college by making demands upon them equivalent to those made by full-year introductory college courses. Solid reasoning and writing skills, along with a willingness to devote considerable time to studying, are necessary to succeed. A variety of approaches will be used to analyze American politics, society, economics, and history. Students will use a college-level textbook, read extensive primary and secondary sources, and demonstrate their ability to learn independently. This course meets the College Board's expectations for an AP US History course. This course fulfills the US History II requirement for eleventh graders. Students are expected to successfully complete the summer work and take the Advanced Placement Exam in May.

### **Sociology (A-4010, H-4069)**

*Meets Expectations for Student-Learning: 1,2,3,4,6,7*

Elective      Semester      Grades: 10-12      A Level or Honors

Students will explore human society in a variety of ways. This will involve the investigation of social institutions as well as social group dynamics and organization. Sociological research will be used throughout the course to conduct surveys, interviews, and studies. Throughout the semester, students will be expected to demonstrate growth as critical thinkers, readers and writers as well as their ability to take personal responsibility for their learning when engaged in aspects of Project Based Learning. Honors students will be expected to do extensive and sustained independent research and analysis outside of class and present their findings in written, visual and oral formats.

### **Psychology (A-4011, H-4023)**

*Meets Expectations for Student-Learning: 1,2,3,4,6,7*

Elective                      Semester                      Grades: 11-12                      A Level or Honors

Students who have taken a semester of Psychology are not eligible to take AP Psychology.

Psychology students will explore human behavior and the mind including social psychology, adolescence, methods of research, consciousness, learning, neuroscience, personality, abnormal behavior and therapy. Classes will include a combination of discussions, lectures, films, and presentations. Throughout the semester, students will be expected to demonstrate growth as critical thinkers, readers and writers as well as their ability to take personal responsibility for their learning when engaged in aspects of Project Based Learning. Honors students will be expected to do extensive and sustained independent research and analysis outside of class and present their findings in written, visual and oral formats.

### **America and the World Today (A-4016T, H-4070)**

*Meets Expectations for Student-Learning: 1,2,3,4,6,7*

Elective                      Semester                      Grades: 10-12                      A Level or Honors

This course is designed to provide students with an understanding of America's role in the national and global community. Class discussions, guest speakers, current issues and research provide students the opportunity to explore and analyze American involvement in contemporary domestic and international issues. Throughout the semester, students will be expected to demonstrate growth as critical thinkers, readers and writers as well as their ability to take personal responsibility for their learning when engaged in aspects of Project Based Learning. Honors students will be expected to do extensive and sustained independent research and analysis outside of class and present their findings in written, visual and oral formats.

### **Economics (A-4026, Honors-4071)**

*Meets Expectations for Student-Learning: 1,2,3,4,6,7*

Elective                      Semester                      Grades: 10-12                      A Level or Honors

This course is designed to provide students with an introduction to economics. Students will examine topics such as scarcity, supply and demand, market structures, the role of government, personal finance, and the role of financial institutions. Throughout the semester, students will be expected to demonstrate growth as critical thinkers, readers and writers as well as their ability to take personal responsibility for their learning when engaged in aspects of Project Based Learning including student choice. Honors students will be expected to do extensive and sustained



independent research and analysis outside of class and present their findings in written, visual and oral formats.

### **Global Studies (A-4031, H-4073)**

*Meets Expectations for Student-Learning: 1,2,3,4,6,7*

Elective                      Full Year or Semester                      Grades: 10-12                      A Level or Honors

This course will introduce students to and provide them with opportunities to explore their role in a global community through the lens of the United Nations Sustainable Development Goals. Students will research and evaluate challenges faced by different regions of the world and propose solutions. Throughout the semester, students will be expected to demonstrate growth as critical thinkers, readers and writers as well as their ability to take personal responsibility for their learning when engaged in aspects of Project Based Learning especially student choice and a public product. Honors students will be expected to do extensive and sustained independent research and analysis outside of class and present their findings in written, visual and oral formats.

### **World Religions (A-4060, H-4061)**

*Meets Expectations for Student-Learning: 1,2,3,4,6,7*

Elective                      Semester                      Grades: 10-12                      A Level or Honors

Students will explore the history, structure, beliefs, and traditions of a variety of religions including but not limited to Judaism, Christianity, Islam, Hinduism, Buddhism, Daoism, Confucianism, and Shintoism. Throughout the semester, students will be expected to demonstrate growth as critical thinkers, readers and writers as well as their ability to take personal responsibility for their learning when engaged in aspects of Project Based Learning including student choice. Honors students will be expected to do extensive and sustained independent research and analysis outside of class and present their findings in written, visual and oral formats.

### **American Government (A-4035, H-4041)**

*Meets Expectations for Student-Learning: 1,2,3,4,6,7*

Elective                      Semester                      Grades: 10-12                      A Level or Honors

This course is designed to provide students with an understanding of the structure, purpose, principles, and practices of American government at the local, state and national levels. Students will investigate their rights and responsibilities as American citizens and how they can exercise these rights and responsibilities at different levels through current issues, class discussions, and guest speakers. Throughout the semester, students will be expected to demonstrate growth as critical thinkers, readers and writers as well as their ability to take personal responsibility for their learning when engaged in aspects of Project Based Learning including student choice. Honors students will be expected to do extensive and sustained independent research and analysis outside of class and present their findings in written, visual and oral formats.

### **The World at War (A-4087, H-4091)**

*Meets Expectations for Student-Learning: 1,2,3,4,6,7*

Elective                      Semester                      Grades: 10-12                      A Level or Honors

This course will provide students an opportunity to investigate the causes, courses, and consequences of military conflicts from World War I to the present. Class discussions, guest speakers and research will provide students the opportunity to explore and analyze not only the events of the wars but also on the governments, economies, and societies that created and were created by these conflicts. Throughout the semester, students will be expected to demonstrate growth as critical thinkers, readers and writers as well as their ability to take personal responsibility for their learning when engaged in aspects of Project Based Learning including student choice. Honors students will be expected to do extensive and sustained independent research and analysis outside of class and present their findings in written, visual and oral formats.

### **Exploring Family History (4043A, 4043H)**

*Meets Expectations for Student-Learning: 1,2,3,4,6,7*

Elective                      Semester                      Grades: 11-12                      A Level or Honors

This course will provide students an opportunity to explore their family's history and how it has both responded to and reflected developments in world and United States history. After conducting extensive independent research, students will create a family documentary that incorporates analysis of primary sources, personal interviews, historical references, and creativity in presenting the material. Throughout the semester, students will be expected to demonstrate growth as critical thinkers, readers and writers as well as their ability to take personal responsibility for their learning when engaged in aspects of Project Based Learning including a public product. Honors students will be expected to do extensive and sustained independent research and analysis outside of class and present their findings in written, visual and oral formats.

### **Law & Order (4094A, 4094H)**

*Meets Expectations for Student-Learning: 1,2,3,4,6,7*

Elective                      Semester                      Grades: 10-12                      A Level or Honors

This course will introduce students to the United States justice system through an examination of Constitutional, civil and criminal law. Students will gain a deeper understanding of the law through an examination of case studies, current issues, participation in mock trials as well as discussions with guest speakers. Throughout the semester, students will be expected to demonstrate growth as critical thinkers, readers, and writers as well as their ability to take personal responsibility for their learning when engaged in aspects of Project Based Learning. Honors students will be expected to do extensive and sustained independent research and analysis outside of class and present their findings in written, visul and oral formats.

### **Pop Culture (4093A, 4093H)**

*Meets Expectations for Student-Learning: 1,2,3,4,6,7*

Elective                      Semester                      Grades: 10-12                      A Level or Honors

This course will provide students an opportunity to examine how popular culture has both shaped and been shaped by American politics, economics, society and technology in the 20<sup>th</sup> and 21<sup>st</sup> centuries. Students will also examine the role of individuals, including themselves, as creators and consumers of pop culture including TV, movies, fashion, comics, art, and music. Throughout the semester, students will be expected to demonstrate growth as critical thinkers, readers, and writers

as well as their ability to take personal responsibility for their learning when engaged in aspects of Project Based Learning. Honors students will be expected to do extensive and sustained independent research and analysis outside of class and present their findings in written, visual and oral formats.

### **Sports in America (4042A, 4042H)**

*Meets Expectations for Student-Learning: 1,2,3,4,6,7*

Elective                      Semester                      Grades: 10-12                      A Level or Honors

This course will provide students an opportunity to do an in-depth analysis of the role of sports in America including the evolution of sports and how they have both reflected and responded to developments in United States history. Students will also investigate the psychology of sports including leadership, team dynamics, and individual competition. Throughout the semester, students will be expected to demonstrate growth as critical thinkers, readers and writers as well as their ability to take personal responsibility for their learning when engaged in aspects of Project Based Learning including a public product. Honors students will be expected to do extensive and sustained independent research and analysis outside of class and present their findings in written, visual and oral formats.

### **Advanced Placement Psychology (4012)**

*Meets Expectations for Student-Learning: 1,2,3,4,6,7*

Elective                      Full Year                      Grade: 12                      Advanced Placement

Prerequisite: Course placement is based on the teacher's recommendation and past academic performance. Standardized test scores and placement test scores may also be used.

AP Psychology is the equivalent of a college introductory psychology course. It will explore human behavior and the mind by addressing such questions as: "What makes us who we are? What are the biological bases of behavior? How do we learn? What are sensation and perception? What is adolescence? What is mental illness and how is it treated? What motivates people?" Classes will include a combination of discussions, lectures, films, and presentations. A variety of theories will be examined including Freud, Skinner, Piaget, and Kagan. Students will develop a better understanding of themselves and the forces acting upon them, as well as improve their critical thinking and writing skills. This course meets the College Board's expectations for an AP Psychology course. The reading, writing, and discussions are aligned with those of a college Psychology course. Students will read extensively in a college level textbook and take responsibility for their own learning. Students are expected to successfully complete the summer work and take the Advanced Placement Exam in May.

### **Advanced Placement Human Geography (4072)**

*Meets Expectations for Student-Learning: 1,2,3,4,6,7*

Elective                      Full Year                      Grade: 12                      Advanced Placement

Prerequisite: Teacher Recommendation

AP Human Geography will introduce students to the systematic study of patterns and processes that have shaped human understanding, use and alteration of the Earth's surface. Students will employ spatial concepts and landscape analysis to examine human social organization and its

environmental consequences. Students will investigate geographic concepts, population trends, cultural patterns and processes, political organization of spaces, agricultural and rural land use, industrialization and economic development, cities, and urban land use. Throughout the course, students will develop and refine their ability to understand how cultural landscapes and regions emerge; use maps and other spatial data to pose and solve problems; identify and analyze the local, regional, national and global factors that influence a phenomena; and understand the ways in which events and processes operating in one place influence those operating at other places. The reading, writing, and discussions are aligned with those of a college Social Science course. Students will read extensively and take responsibility for their own learning. Students are expected to successfully complete the summer work and take the AP exam in May.

### **Social Science Internship (4030)**

*Meets Expectations for Student-Learning: 3,4,6,7,8*

Elective                      Semester                      Grades: 11-12                      A Level

Prerequisites: Teacher Recommendation and director approval

Students will be assigned by the department director to work in a World Civilizations or US History I class as an assistant to the teacher in that class. Interns will help students with class work, including projects, in-class activities and other assignments. Interns will be expected to facilitate work with small groups of students or create study guides and review materials with or for students. Interns will also assist students with the organization of their notebooks, test preparation, projects and long-term planning. Students who participate in this program will meet with their cooperating teacher and/or the director on a weekly basis. Interns will also complete a written reflection at the end of each quarter. The grade for this class will be a pass/fail grade and determined by attendance, written reflections, weekly meetings and contributions to the class.

## Visual Arts Department

Ms. Pamela LeBlanc, Director

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The Visual Arts Program provides students with the opportunity to work with a wide variety of materials in order to develop their skills, perceptions, and creativity. Each course is designed to introduce or master skills from earlier training, as well as to develop a knowledge base of various artists and art movements. Some courses require a prerequisite. Students looking to take the Studio I course are required to take one *semester of Art Intro or Creative Sketchbooks*. All Studio level courses provide students with concepts and skills to build a portfolio for college.

**For the serious art student, we recommend following the 4-year Art Experience track.**

(\* Indicates prerequisites for other related art courses – Teacher signature may be needed)

	Grade 9	Grade 10	Grade 11	Grade 12
<b>4-year Art Experience</b>	* Art Intro (semester) ~ OR ~ *Creative Sketchbooks  Studio I (taken semester II)	Studio I (Semester)  Choice in other art elective	Studio II ( Full Year)	AP Studio Art: Drawing
<b>Semester and Full Year offerings</b> xx	*Art Intro Studio I (Semester II)  *Ceramics I Ceramics II & Sculpture  Creative Sketchbooks  *Digital Art & Design Advanced Digital Art & Design  Mixed Media	Art Appreciation  *Art Intro *Studio I Studio II (FY)  *Ceramics I *Ceramics II & Sculpture *Ceramics III & Sculpture  Creative Sketchbooks  *Digital Art & Design Advanced Digital Art & Design  Mixed Media  Sculpture & Installation  Traditional & Digital Photography	Art Appreciation  *Art Intro *Studio I Studio II (FY)  *Ceramics I *Ceramics II & Sculpture *Ceramics III & Sculpture  Creative Sketchbooks  *Digital Art & Design Advanced Digital Art & Design  Mixed Media  Sculpture & Installation  Traditional & Digital Photography	Art Appreciation  *Art Intro *Studio I *Studio II *AP Studio Art: Drawing  *Ceramics I *Ceramics II & Sculpture *Ceramics III & Sculpture  Creative Sketchbooks  *Digital Art & Design Advanced Digital Art & Design  Mixed Media  Sculpture & Installation  Traditional & Digital Photography

All courses offered in the Visual Arts Department incorporate standards-based instruction and learning that meet the Massachusetts Creative Arts Curriculum Frameworks. "Learning in, about and through the arts develops each learner's capacity to make meaning from experience, to respond, creatively and to contribute to society."

**Course Offerings:**

Art Appreciation	Creative Sketchbooks	Studio I
Art Intro	Digital Art & Design	Studio II: Honors Portfolio
Ceramics I	Advanced Digital Art & Design	AP Studio Art: Drawing
Ceramics II & Sculpture	Mixed Media	Traditional & Digital Photography
Ceramics III & Sculpture	Sculpture & Installation	

**Art Appreciation (6532T)**

*Meets Expectations for Student Learning: 1,2,3,4,6,7,8*

Elective Semester Grades: 10-12 A Level

Do you wonder how Michelangelo painted the Sistine Chapel or why Van Gogh cut off his ear? *Art Appreciation* covers the basics of art history and the how and why art is an important tool for understanding history. We cover art making mediums, discuss art from prehistoric times to the present and all of the various art movements that have shaped art into what we see in museums and galleries. The point of this class is to get students familiar with terms and concepts so that they can confidently develop their own thoughts on the art they are seeing. *Students have the potential to earn 3 credits as a Pass/Fall grade through Quinsigamond Community College.*

**Art Intro (6500)**

*Meets Expectations for Student Learning: 1,2,3,4,6,7,8*

Elective Semester Grades: 9-12 A Level

Maybe you are intimidated by drawing and/or painting or maybe you are looking to improve your drawing/painting skills. Either way, Art Intro is for you! In this course you will cover the basics with step by step instruction, understand the importance of observing and studying, drafting and revising, while exploring a variety of art materials. End result, students will understand how to create the illusion of three-dimensional imagery through shading, color and perspective. This is the prerequisite course for *Studio I*.

**Ceramics I (6506)**

*Meets Expectations for Student Learning: 1,2,3,4,6,7,8*

Elective Semester Grades: 9-12 A Level

Come explore the world of clay in Ceramics I! This is an introductory class which goes over the basics of working with clay and glaze, handbuilding techniques and how to use the potters wheel. Some of the project we create include tiles, slab boxes, teapots and functional objects such as bowls

and cups. Whether you are new to clay or have been to Claytime, *Ceramics I* will get you feeling confident about making and glazing clay objects.

### **Ceramics II & Sculpture (6528T)**

*Meets Expectations for Student Learning: 1,2,3,4,6,7,8*

Elective                      Semester                      Grades: 9-12                      A Level

*Prerequisite: Ceramics I \*Teacher signature required*

Ceramics II builds on the knowledge you gain in Ceramics I, improves your clay skills and pushes the boundaries with your ideas. Some of the projects include both wheel thrown and handbuilt components, creating sculptures from clay forms made on the wheel and working on expanding your glazing and design skills. If you like Ceramics II & Sculpture why not try Ceramics III where you can spend more time on independent work. *A materials fee may be assessed.*

### **Ceramics III & Sculpture (6529)**

*Meets Expectations for Student Learning: 1,2,3,4,6,7,8*

Elective                      Semester                      Grades: 10-12                      A Level

*Prerequisite: Ceramics II & Sculpture \*Teacher signature required*

Did Ceramics I and II inspire you to want more clay? In Ceramics III we explore creating large handbuilt ceramic sculpture and expand our wheel working skills. Students work independently researching and developing their projects, drafting ideas and creating mock-up designs. Attention to detail and pushing your limits will be required. *A materials fee may be assessed.*

### **Creative Sketchbooks (6518T)**

*Meets Expectations for Student Learning: 1,2,3,4,6,7,8*

Elective                      Semester                      Grades: 9-12                      A Level

Do you like to doodle, journal, and draw? Do you want to explore new materials? Then this is a class for you! This class is a mix of abstract and realistic projects done in a sketchbook, using all kinds of materials, such as drawing, painting, and collaging. Projects will be quicker and more experimental however, students will still learn the foundational drawing techniques and understand the importance of observation. While most projects stay within the sketchbook, some projects may expand beyond. This is the prerequisite course for *Studio I*.

### **Digital Art & Design (6504T) (previously titled Digital Imaging)**

*Meets Expectations for Student Learning: 1,2,3,4,6,7,8*

Elective                      Semester                      Grades: 9-12                      A Level

Do you love technology? Would you like to learn how to use Adobe Photoshop and get your art requirement at the same time? No need for any prior drawing experience. This is an art course that uses technology as a medium. Students learn the basics of Adobe Photoshop while learning artistic concepts. Students in Digital Art & Design learn about famous artists, art techniques, as well as basic layout and design. Some of the lessons are modeled after artists like, Andy Warhol, Picasso or Ben Heine. Adobe Photoshop does more than manipulate photos, it is also a program with drawing, painting and typographic capabilities.

### **Advanced Digital Art & Design (6533)**

*Meets Expectations for Student Learning: 1,2,3,4,6,7,8*

Elective                      Semester                      Grades: 9-12                      A Level

Prerequisite: *Digital Art & Design*

Are you a Photoshop whiz? Do you want an art course with more technology and less drawing? In this course students build on what they learned in Digital Art & Design. With some review of Adobe Photoshop, students are then introduced to Adobe Illustrator, which is a more intense drawing and graphics program that allows for accurate perspective drawing, as well as creating vector graphics. Additionally, students will expand their understanding of layout, design and typography as a creative process in communication.

### **Mixed Media (6524)**

*Meets Expectations for Student Learning: 1,2,3,4,6,7,8*

Elective                      Semester                      Grades: 9-12                      A Level

Do you feel intimidated when it comes to a traditional art class? Do you want to try working more experimentally? Take risks, try new techniques and embrace the happy accidents! In Mixed Media you will use traditional drawing, painting and printmaking materials in combination with collage and assemblage methods, allowing you to experiment and explore the process of creating a finished piece.

### **Sculpture & Installation (6533)**

*Meets Expectations for Student Learning: 1,2,3,4,6,7,8*

Elective                      Semester                      Grade: 9-12                      A Level

Do you like working with your hands and using tools? Do you like art that doesn't just hang on the wall? Sculpture and installation will explore a variety of mediums including plaster, wire, wood, cardboard and found objects. We explore relief sculpture, free standing work, planning out installations and how to display our works. Students will work independently and collaboratively with peers in producing work.

### **Studio I (6511T)**

*Meets Expectations for Student Learning: 1,2,3,4,6,7,8*

Elective                      Semester                      Grades: 9-12                      A Level

Prerequisite: *Art Intro or Creative Sketchbooks* \*Teacher signature required

Are you looking to delve a little deeper with materials and techniques? Are you looking to start building a portfolio? Studio I is the course for that! During the semester, students will continue to build on concepts and skills, while being challenged to think more independently and creatively.

### **Studio II: Honors (6516)**

*Meets Expectations for Student Learning: 1,2,3,4,6,7,8*

Elective                      Full Year                      Grades: 11-12                      Honors

Prerequisite: *Studio I* \*Teacher signature required

Looking to build a portfolio? Studio II is where you want to be. This class explores a variety of media and subject matter in drawing and painting that will be looked for when applying to college. Artists will create works that are both guided and open-ended, showing one's individual style, creativity and self-expression: with a strong understanding of materials, concepts and techniques students may use pieces created as Breadth work for Advanced Placement Studio Art. *Summer assignments may be required.*



### **Advanced Placement Studio Art: Drawing (6514T)**

*Meets Expectations for Student Learning: 1,2,3,4,6,7,8*

Elective

Full Year

Grade: 12

Advanced Placement

Prerequisite: *Studio II and portfolio assessment by faculty and director. Summer assignments required. \*Teacher signature required.*

This class is for the serious art student who wants to come up with a theme/concentration for the entire year and generate their own assignments based on that. Their artistic journey over the year should show growth and development within their chosen theme. In combination with 12 Breadth pieces of art, the students 12 new pieces from their concentration/theme will be submitted along with an essay for the AP Studio Drawing test. Students must be able to work independently at a demanding pace to meet the deadlines for the exam. *A materials fee may be applied for portfolio preparation.*

### **Traditional & Digital Photography (6507TT)**

*Meets Expectations for Student Learning: 1,3,4,6,7,8,9*

Elective

Semester

Grades: 10-12

A Level

Do you love to take photos and want learn more about photography? This class covers the ins and outs of using both digital and 35mm film cameras. Students will be using a darkroom to print traditional black and white prints as well as learning Adobe Photoshop to manipulate and enhance their photos. This course is co-taught with two art teachers. Each student will be spending an equal amount of time in the darkroom and the computer lab. Students shoot a variety of subjects including portraits, landscapes, still life, candids, close-ups and experiment with their film negatives and computer files to create captivating images. We learn about composition, using a tripod and the history of photography.