SHEPHERD HILL REGIONAL HIGH SCHOOL MISSION STATEMENT

Shepherd Hill Regional High School is **"Committed to Excellence"** and dedicated to developing all students to their full potential. The school, along with parents, community and supporting agencies, provides motivation, quality instruction, guidance, a safe environment and skills for success in today's ever-changing world. By promoting a sense of **"Pride and Unity,"** we strive to enable students to become productive citizens in a free society and to instill in them a desire for life-long learning.

SHEPHERD HILL REGIONAL HIGH SCHOOL LEARNING EXPECTATIONS

1. The Shepherd Hill student writes effectively.
2. The Shepherd Hill student reads effectively.
3. The Shepherd Hill student speaks effectively.
4. The Shepherd Hill student listens effectively.
5. The Shepherd Hill student uses technology effectively.
6. The Shepherd Hill student understands and applies personal wellness skills.
7. The Shepherd Hill student demonstrates critical thinking and problem solving skills.
8. The Shepherd Hill student demonstrates an understanding of culture and the arts.
9. The Shepherd Hill student plans and sets goals for transition to post graduate life.
10. The Shepherd Hill student demonstrates a sense of citizenship and community.

PROGRAMS OF STUDIES
SHEPHERD HILL REGIONAL HIGH SCHOOL
2010-2011

Administrators
Mary A. Pierangeli, *Principal*
Andrew J. Leach, *Assistant Principal*
Michael D. Resener, *Assistant Principal*
Suzanne H. Cabral,
Director of Student Resources

68 Dudley-Oxford Road
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Counselors
Corey Gendron
Lisa Incutto
James Laliberte
Lauren Leardi

Foreword
This Program of Studies Guide and the Course Description Catalog were prepared to assist students and their parents in selecting appropriate courses. Students should make selections that both lead to their diploma, as well as begin to prepare for higher education and life long career pathways.

Program Requirements
All pupils must carry enough courses during a school year to accumulate a minimum of 5.75 to 6.00 credits. A greater number of courses for credit may be elected, if they serve the best interest of the pupil, have the approval of the parents and counselor, and room is available in the course.

Restrictions
1. No more than four music performance credits (Band, Chorus, Ensembles) may be applied to the minimum number of credits required for graduation.

High School Graduation Requirements
1. Four credits in English
2. Three credits in Social Studies; a passing grade in U.S. History 2 is required.
3. Four credits in Math (beginning with YOG 2013)
4. Three credits in Science
5. Three quarters credit in Physical Education unless medically excused (seniors exempt)
6. Competency determination with a score of 220 or higher on MCAS for English and Mathematics. Science Competency determination is added for YOG 2010 and U.S. History will be added for YOG 2012.
7. All students are expected to meet the minimum program requirement established by local School Committee policy. The feasibility of a transfer student completing the minimum requirements of particular departments may be affected by the curriculum of the prior school as well as the timing of enrollment at Shepherd Hill. Any exceptions to the requirements will be made on an individual basis by a committee consisting of the Principal, Guidance Supervisor and appropriate Department Coordinator.

High School Promotion and Graduation
The minimum number of credits for promotion and graduation are as follows:

To be considered a sophomore ⇒ 4.25
To be considered a junior ⇒ 9.00
To be considered a senior ⇒ 14.75
For graduation ⇒ 21.00

Graduation Participation
Seniors who have not met minimum academic requirements by the close of school the Friday prior to graduation will not be allowed to participate in the graduation exercises.

Seniors who have not fulfilled school obligations (i.e., failure to attend scheduled graduation rehearsals, outstanding school debt, serious misconduct during senior activities, and/or failure to serve disciplinary time) may be excluded from graduation exercises by the Principal.

Eligibility requirements for Athletics/Activities
A student must pass a minimum of four major subjects during the marking period preceding participation (e.g. second quarter marks and not semester averages determine third quarter eligibility). To satisfy this requirement, a student must have passed sufficient courses for that marking period that carry credits totaling the equivalent of four (4) credits from major subjects (meeting every day.) For fall, passing grades are required for the fourth quarter and final grades from the previous school year.

Course Selection
All courses at Shepherd Hill are open to all students regardless of race, color, gender, religion, national origin, handicap, or sexual preference. In choosing specific courses, be aware that some have prerequisites that you must have taken and passed beforehand, and some (A.P. courses, for example) are selective, based upon past performance and teacher recommendations.

Admission of Transfer Students
A student entering Shepherd Hill must, with his/her parents or legal guardians, provide official school records from his/her previous school. Such records will include but are not limited to transfer card, academic records (including grades to date for the current school year), disciplinary records, health records, and an Individual Education Plan or 504 Accommodation Plan in the case of students with special needs.

Course Changes and/or Drops
All changes in a student's schedule must be processed through the Guidance Office. Certain restrictions apply, namely:
1. No course may be entered after the first ten meeting days (unless student is changing levels of a course sequence already taken or is transferring into Shepherd Hill Regional High School).
2. Course may be dropped within the first twenty meeting days with no consequences, although students must carry the minimum credit caseload for YOG.
3. Movement to a lower level of a course/sequence must be done before the mid-point of the course/sequence.
4. The transcripts of students who drop courses after the first twenty meeting days will show the name of course with WP (withdrawn pass) or WF (withdrawn fail). Exceptions to these regulations will require approval of the student's counselor, the teacher(s) involved, parent(s) and the principal.

At any time in the course change or drop process, a counselor may require teacher and parent involvement.

Overview of the scheduling process

1) Students' teachers will make recommendations for English, Foreign Language, Mathematics, Science and Social Studies classes.

   Levels for courses are designed to provide for the **varying instructional needs of students**. This structure is intended to allow every student the opportunity, to strive for his or her personal best. The curriculum for all courses, and at every level, is aligned with the Massachusetts Curriculum Frameworks.

   Students are placed in classes based on their instructional needs. For example, a student may be placed in a Level 1 Mathematics course and a Level 2 English course.

   Courses at Shepherd Hill are Advanced Placement, Level 1, Level 2, or non-leveled.

   The expectations for Level 1 learners include the ability to absorb new information readily, strong self-advocacy skills, and strong organizational skills.

   Level 2 learners may need additional reinforcement of concepts. They may also benefit from additional instructional strategies and teacher reinforcement.

   Non-leveled courses are designed to allow a student to explore areas of interest. The majority of non-leveled courses are in the elective areas.

2) Students will select electives to reach the minimum credit caseload:

   Freshmen 6.0 Sophomores 6.0 Juniors 6.00 Seniors 5.50

   PLEASE use this as a guiding thought: **Ask for what you want, and want what you ask for!** The information that students relay regarding their choices for classes, actually helps to determine if a course can be run or how many sections need to be created.

   Requests to change original choices of classes after the course selection process has been completed cannot be accommodated. The best manner to ensure that a student has made the most informed choices is to READ the course descriptions!

   During your review of the course descriptions please attend to the course prerequisites which are located under the course title. Prerequisites include grade spans that the courses are open to, previous courses that may have to have been taken, and grade and/or MCAS testing thresholds.

   Alternative elective choices are mandatory at each grade level. Should we not be able to schedule you into your first choice electives, knowing what your next best choice would be will increase the chances of placing you in an elective that you have an interest in.

3) Schedules will be mailed to students in August. A day in August will be available for students who have major problems with their schedules to meet with their guidance counselor. Major problems include missing a core content class, not having the minimum credit caseload or circumstances such as receiving Art 2 without Art 1. These dates will be included in the May/June SHRHS Newsletter which is also mailed home. **Issues relayed by email or telephone will be resolved AFTER the dates set out for students to come into the school.**

Shepherd Hill Regional High School is proud to offer an array of courses which continue to enable the distinction as a comprehensive high school. Courses are available to all students which accommodate a wide range of interests and talents. The courses in the following pages are set out by subject area to assist in the review of the material.

Dear Student and Parent:

Shepherd Hill Regional High strives for a challenging academic program which promotes a questioning and independent spirit through diversity of course offerings and other learning experiences. The fundamental purpose of this course of study guide is to aid you with your course selection and to forecast your educational career at SHRHS.

The administration, faculty, and community have created and supported programs to meet the needs and varied learning styles of the student body. The rich and varied curriculum is supplemented by an abundance of extra-curricular activities: music, drama, athletics, academic teams, publications and clubs. Engaged in such activities, students learn to understand that they are part of a larger community that reaches beyond the confines of the building. The goal of our program is not only to equip students with skills necessary for further work and study, but also to encourage them to become responsible human beings capable of contributing to their world.

The decisions you make regarding course selection will undoubtedly have long-range effects. I urge you to plan to select your course of study wisely and challenge yourself to strive for excellence.

Mary A. Pierangeli
Principal

ACCREDITATION STATEMENT

Shepherd Hill Regional High School is accredited by the New England Association of Schools and Colleges, Inc., a non-governmental, nationally recognized organization whose affiliated institutions include elementary schools through collegiate institutions offering post-graduate instruction. Inquiries regarding the status of an institution's accreditation by the New England Association should be directed to the administrative staff of the school or college. Individuals may also contact the association: New England Association of Schools and Colleges, 209 Burlington Road, Bedford, MA 01730-1433, (781) 271-0022.

NON-DISCRIMINATION STATEMENTS

"It is the policy of the Dudley-Charlton Regional School District not to discriminate on the basis of sex in its educational programs, activities, or employment policies as required by the Title IX of the 1972 Educational Amendment."

"It is the goal of the Dudley-Charlton Regional School District to promote an environment that is free from discrimination and affirmatively provides access to employment and equal educational opportunity. Discrimination, including that based on race, color, sex, religion, national origin, ancestry, disability or sexual orientation of an individual occurring in the workplace or in other settings in which individuals may be entitled access to educational opportunity is unlawful and will not be tolerated by this organization. Further, any retaliation against an individual for cooperating with an investigation of a discrimination complaint is similarly unlawful and will not be tolerated. To achieve our goal, acts of discrimination or harassment will not be tolerated and we have provided procedures by which inappropriate conduct will be addressed, if encountered by an employee, student or member of the community."

The following persons have been designated to handle inquires regarding the non-discrimination policies:

BUILDING PRINCIPAL
Mrs. Mary A. Pierangeli
Shepherd Hill Regional High School
Dudley-Oxford Road, Dudley, MA 01571
508-943-6700

DIRECTOR OF STUDENT RESOURCES
Coordinator, Title VI, Title IX, S. 508
Shepherd Hill Regional High School
Dudley-Oxford Road, Dudley, MA 01571
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DUDLEY-CHARLTON DISTRICT MISSION STATEMENT

" . . . to advance the knowledge and well being of our children and our community."

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Course Descriptions

• ENGLISH •

ENGLISH NINE 001, 002, 003 (Accelerated)

1.00 Credit Levels: 1, 2, Accelerated
Prerequisites: English 8
Prerequisites for Accelerated: Advanced score (260-280) on 7th grade Language Arts MCAS and at least ONE of the following: teacher recommendation or 93 average in 8th grade Language Arts, at the conclusion of the third quarter. Students who score lower than 260 on the 7th grade MCAS but have BOTH a 93 average in 8th grade Language Arts AND teacher recommendation, will be offered the option of taking a Massachusetts Frameworks based test for 8th grade Language Arts in the spring prior to 9th grade. An advanced score on this test will allow placement into accelerated English 9.
Learning expectations: 1, 2, 3, 4
Objectives:

1. To improve written and oral communication while emphasizing correct grammar usage and vocabulary development.
2. To develop an understanding of a variety of literary concepts such as theme, style, and genre.
3. To plan and present an oral/media presentation for a variety of purposes.

Contents: The continued development of spelling, reading, writing, listening, speaking and critical thinking skills will be emphasized. (Several papers are required.)

ENGLISH TEN 004, 005, 029 (Accelerated)

1.00 Credit Levels: 1, 2, Accelerated
Prerequisites: English 9
Prerequisites for Accelerated: A 90 average in the 9th grade accelerated English (these students will have scored advanced on either the 8th grade MCAS or on the Massachusetts Frameworks based test as noted for accelerated 9). Students who have not achieved an advanced score on either the MCAS or the frameworks test, but have teacher recommendation AND a 95 average in level one 9th grade, or 97 average in level two 9th grade English, will be offered the option of taking a Massachusetts Framework based test for 9th grade English in the spring prior to 10th grade. An advanced score on this standardized test will allow placement into accelerated English 10.
Learning expectations: 1, 2, 3, 4
Objectives:

1. To teach the basic tools for self-expression, including grammar, usage, mechanics, syntax, vocabulary, spelling, and composition.
2. To develop thinking and communication skills, including logic, organization, and research.
3. To expand the student's knowledge and appreciation of the various literary forms, including drama, the short story, the essay, mythology and poetry.

Contents: Students will read novels, short stories and poetry. They will analyze themes and literary devices in comprehensive written/oral form. The rules of grammar and usage will be tested and their application will be required in written work. Comprehensive vocabulary will be studied and tested.

ENGLISH ELEVEN 033, 034, 035 (Accelerated)

1.00 Credit Levels: 1, 2, Accelerated
Prerequisites: English 10
Prerequisites for Accelerated: Advanced score on the 10th grade MCAS – scores available in late August- AND a 90 average in 10th grade accelerated English; 95 average in level one 10th grade English; 97 average in level two 10th grade 10th grade English. Students who have not achieved an advanced score but have teacher recommendation AND the required grade average, will be offered the option of taking a Massachusetts Framework based test for 10th grade English in the spring prior to 11th grade. An advanced score on this test will allow placement into accelerated English 11.
Learning expectations: 1, 2, 3, 4
Objectives:

1. To identify, evaluate and synthesize the essential ideas or issues in a variety of genres and texts.
2. To identify, analyze, evaluate and apply knowledge of authors' use of elements of literature for rhetorical and aesthetic purposes and to use these in original writing.
3. To write coherent compositions with a clear focus using adequate detail in well-developed paragraphs.
4. To revise to improve style, word choice, and sentence variety.
5. To employ the conventions of Standard English to edit writing.

Contents: Students will read, discuss, and write about some of the greatest novels, poems, essays, dramas and stories of American literary history. Students will write papers of varying lengths. Students will also be expected to prepare and make oral presentations.

ENGLISH TWELVE: 041, 042, 043 (Accelerated)

1.00 Credit Level: 1, 2, Accelerated.
Prerequisites: English 11
Prerequisites for Accelerated: Advanced score (260-280) on 10th grade Language Arts MCAS AND a 90 average in 11th grade Accelerated English, 95 average in level one 11th grade English, 97 average in level two 11th grade English. Students who have not achieved the advanced level on the 10th grade MCAS , but have teacher recommendation AND the required grade average, will be offered the option of taking a Massachusetts Framework based test in the spring prior to 12th grade. An advanced score on this test will allow placement into accelerated English 12.
Learning expectations: 1, 2, 3, 4
Objectives:

1. To develop an awareness and appreciation of the literature of many countries.
2. To further the understanding of the various elements of literature as well as to increase the knowledge of different forms and genres.

3. To fully appreciate the implications of living in a multicultural world that is shrinking because of advances in transportation and communication technology.
4. To prepare students for the kind of writing commonly required in college courses and/or in the world of work.
5. To develop mature patterns of thought so as to be able to effectively organize those patterns for writing and public speaking.
6. To develop knowledge of reference sources including those available on the Internet and to develop facility in using research resources effectively.
7. To teach the mechanics of grammar, punctuation and standard usage for use in all forms of communication.
8. To further the development of vocabulary.

Contents: Students will read, discuss, and write about some of the greatest novels, poems, essays, dramas and stories from the canon of World/English Literature. Students will write papers of varying lengths. Students will also be expected to prepare and make oral presentations.

NOTE: Should there be too few students who meet both criteria for any Accelerated class, we will then accept students with an MCAS score of 258, 256, and so on until a reasonable number is reached for a class.

A.P. ENGLISH LANGUAGE AND LITERATURE 030

1.00 Credit Level: AP

Prerequisites: Advanced score (260-280) on 10th grade Language Arts MCAS or Frameworks test AND 93 average in 11th grade Accelerated English; 95 in level one 11th grade English; 97 in level two 11th grade English. Students who have achieved BOTH the grade requirement AND teacher recommendation but not an advanced score on the 10th grade MCAS or a previous Massachusetts Framework based test, will be offered the option of taking an AP pretest in the spring prior to the 12th grade. An advanced score on this test will allow placement into Advanced Placement English.

Learning expectations: 1, 2, 3, 4, 7, 8

Objectives:

1. To read and analyze a passage of significant literary merit.
2. To develop critical thinking skills.
3. To synthesize information and write college level compositions.
4. To grow in their appreciation of language and literature.

Contents: AP English 12 is an in-depth survey of poetry, drama, fiction and satire. Representative authors include Shakespeare, Plath, Frost, Dickinson, Pope, Byron and Swift. The objective is to provide students with a college-level learning experience and prepare them to take the AP examination in English Literature and Composition. The course engages students in becoming skilled readers of literature written in a variety of periods, disciplines, and rhetorical contexts and in becoming skilled writers who compose for a variety of purposes. Students should engage in careful reading and critical analysis. Through the close reading of selected tests, students should deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As students read, they should consider a work's structure, style, and themes as well as use of figurative language, imagery, symbolism, and tone.

Term Assignment Required: Summer work must be completed before the course begins.

ELECTIVES MAY NOT BE USED TO REPLACE ANY SEGMENT OF THE ENGLISH 9, 10, 11, 12 GRADUATION REQUIREMENTS

A BOOK AND A MOVIE 058

0.50 Credit Level 2

Prerequisites: This elective option is open only to grade 10 students

Learning Expectations: 1,2,3

Objectives:

1. To increase the typical sophomore course caseload to 6.0 rather than 5.50 credits.
2. To attract and encourage reluctant readers as well as "movie buffs."

Content:

Students will read high interest popular as well as some classic fiction, of various genres, such as horror, mystery, science fiction, etc., then watch the corresponding movie. This will be followed by written critiques, comparisons and reviews. Emphasis will be on developing astute, defensible opinions with specific details for support. A large screen movie-style setting will be used for the media portion of the class.

CREATIVE WRITING 013

0.50 Credit Level 2

Prerequisites: Open to grades 11 and 12

Learning expectations: 1, 3, 4

Objectives:

1. To identify, analyze and use the elements generally associated with poetry-metaphor, simile, personification, and alliteration.
2. To make oral presentations that use clear enunciation, appropriate organization, gestures, tone and vocabulary.
3. To use general dictionaries, thesauruses, and other related references as needed.
4. To identify and analyze how an author appeals to the senses, creates imagery, suggests mood, and sets tone.
5. To help and encourage each student to develop his/her own personal style of writing.
6. To encourage the freedom and the self-confidence of each student to voice personal opinions and to try unusual techniques.

Contents: In an informal atmosphere, students will be able to try different forms of self-expression and will receive criticism from the teacher and fellow writing classmates. Poetry and prose literature readings will supplement class work, providing models and illustrating writing techniques. Written exercises will be assigned daily. Re-writing will be emphasized. Finally, students will work individually or in small groups on major projects.

DRAMA 1 050

0.50 Credit Level: 1
Prerequisites: Open to grades 9, 10, 11, 12
Learning expectations: 3, 8
Objectives:

1. To develop an appreciation for drama.
2. To expose the student to stage acting.
3. To acquaint the student with various forms of plays, including drama, musicals, monologues, and comedies.

Contents: Study of American, British and World Theater. Specific genres will be discussed and created. The student will learn the entire process of producing a play, from casting, to the final performance. Acting, directing, production, staging, voice projection and the history of theater will be covered in detail. This is an active class: you will be required to act, memorize, and be very creative.
Term Assignments Required: Besides tests, quizzes and participation, the student will be responsible for a final director project.

DRAMA 2 051

0.50 Credit Level: 1
Prerequisites: Successfully passing Drama 1
Learning expectations: 3, 8
Objectives:

1. To continue to develop an appreciation for theater and acting.
2. To expose the student to various forms of stage acting.
3. To continue developing specific acting skills.

Contents: This second course is designed for those thinking of pursuing a career in the performing arts. Specific attention will be given to the audition process, choosing a monologue, stage blocking, and incorporating direction into your final performance. While the first course was designed to be an introduction, Drama II will attempt to focus on specific skills and techniques. Much like the first course, you will be required to memorize, act, receive direction, perform on stage and film, and as always, be willing to be creative.
Term Assignments Required: Besides tests, quizzes and papers, the student will be responsible for memorizing and acting out a major character in a teacher selected play.

JOURNALISM 054

0.50 Credit Level 1
Prerequisites: This elective option is open only to grade 10 students
Learning Expectations: 1,2
Objectives:

1. To increase the typical sophomore course caseload to 6.0 rather than 5.50 credits.
2. To encourage and attract students who are looking for a more "hands-on" reading and writing experience.
3. To attract students interested in researching, developing, formatting, writing, illustrating, editing and producing a working newspaper for Shepherd Hill.

Content:
Students will look at the history, purpose and parts of a newspaper. Emphasis will be on interview skills, layout and design, photography, ethics and the media at large.

MCAS ENGLISH 053

0.25 Credit Level: 2
Prerequisites: Required of grades 10 & 11 who have failed MCAS; taken in addition to regular English Class.
Objectives:

1. To teach the writing of clear expository prose and personal narrative.
2. To develop writing skills with emphasis upon sound paragraphing and overall organization.
3. To teach grammar and mechanics.
4. To aid students in the editing and revision of writing.
5. To teach and review aspects of test taking (MCAS application).

Contents: This course will aim to assist students in improving writing skills. Attention will be paid to word choice, sentence structure, paragraphing, and overall organization of material. Editing and revision skills will be emphasized. The course will begin with fundamentals of expository writing, studying and learning from models. In addition, work extensively with multiple-choice items. Students will be required to write numerous open-ended writing assignments in preparation for taking comprehensive assessment tests. Class size is limited so that there will be ample time for individual student-teacher conferences.

SHAKESPEAREAN DRAMA 011

0.50 Credit Level 1
Prerequisites: Open to grades 11 and 12; recommended for college bound students.
Learning expectations: 1, 2, 3, 4, 8
Objectives:

1. To develop an awareness and a facility with the language of the Elizabethan period through a survey of Shakespeare's comedies, tragedies, and histories.
2. To identify and analyze how the production elements of a drama support, interpret, and enhance the text.
3. To analyze and compare dramas that express a universal theme, providing supportive evidence using effective rhetorical techniques.

• FOREIGN LANGUAGES •

FRENCH 1 401

1.00 Credit Level: 1
Grades: Students in grades 9-12
Prerequisites:
Content: Students will study the essentials of French grammar, vocabulary and idiomatic expressions. They will be introduced to French culture and develop speaking, listening, reading and writing skills appropriate to their level of study.
Learning expectations: 4, 8
Objectives:
1. To communicate in the target language using words and expressions.
2. To read and interpret informational texts.
3. To write lists and short notes.
4. To develop first year listening skills.
5. To demonstrate knowledge of Francophone people, geography, history, and culture.

FRENCH 1 437

1.00 Credit Level: 2
Grades: Students in grades 9-12
Prerequisites:
Content: Students will study the essentials of French grammar, vocabulary and idiomatic expressions. They will be introduced to Francophone cultures and develop speaking, listening, reading and writing skills appropriate to their level of study. This class will not move through the material as quickly as the level 1 class and it will review previous knowledge as well as complete the first year of language study. The class will be taught in English and French.
Learning expectations: 4, 8
Objectives:
1. To communicate in the target language using words and expressions.
2. To read and interpret informational texts.
3. To write lists and short notes.
4. To develop first year listening skills.
5. To demonstrate knowledge of Francophone people, geography, history, and culture.

FRENCH 2 403

1.00 Credit Level: 1
Prerequisites: Passing grade of A in French 1 level 2.
Passing grade in French 1 level 1.
Content: Students will increase their knowledge of French grammar, vocabulary and idiomatic expressions. With more exposure to the target language they will improve their speaking, listening, reading and writing skills. As they study culture, they will acquire a general knowledge of the French-speaking world. This class will be taught in French.
Learning expectations: 2, 8
Objectives: In addition to the French 1
1. To communicate in the target language using phrases.
2. To read and interpret short stories and / or poetry.
3. To write postcards and short letters.
4. To develop second year listening skills.

FRENCH 2 438

1.00 Credit Level: 2
Prerequisites: Passing grade in French 1 level 2 or equivalent.
Content: Students will increase their knowledge of French grammar, vocabulary and idiomatic expressions. With more exposure to the target language they will improve their speaking, listening, reading and writing skills. As they study culture, they will acquire a general knowledge of the French-speaking world. This class will not move through the material as quickly as the level 1 class. It will review previous knowledge and begin the second year of language study. The class will be taught in English and French.
Learning expectations: 2, 8
Objectives: In addition to French 1
1. To communicate in the target language using phrases.
2. To read and interpret short stories and / or poetry.
3. To write postcards and short letters.
4. To develop second year listening skills.

FRENCH 3 405

1.00 Credit Level: 1
Prerequisites: Passing grade of A in French 2 level 2.
Passing grade in French 2 level 1.
Content: Students will study more advanced French grammar and vocabulary. In the third year of second language acquisition the increased use of the target language by the students is the means by which they will improve their listening and speaking skills. Students will also improve their reading comprehension and writing skills. In this transition year, students will begin to express more things in French including their knowledge and understanding of French culture.
Learning expectations: 1, 8
Objectives: In addition to French 1 and 2
1. To communicate in the target language using sentences.
2. To read and comprehend authentic and adapted materials.
3. To write letters and short reports.

FRENCH 3 439

1.00 Credit Level: 2
Prerequisites: Passing grade in French 2 level 2
Learning expectations: 1, 8
Content: Students will study more advanced French grammar and vocabulary. In the third year of second language acquisition

the increased use of the target language by the students is the means by which they will improve their listening and speaking skills. Students will also improve their reading comprehension and writing skills. In this transition year, students will begin to express more things in French including their knowledge and understanding of French culture. This class will be taught in French using English as necessary to meet the needs of all students.

Objectives: In addition to French 1 and 2

1. To communicate in the target language using sentences
2. To read and comprehend authentic and adapted materials
3. To write letters and short reports

FRENCH 4 406

1.00 Credit Level: 1

Prerequisites: Passing grade of B or better in French 3 or teacher recommendation.

Content: Students will continue to study the more complex structures of French grammar. In this more advanced level of language study, students will begin to communicate entirely in French. As they demonstrate more proficiency orally, the students will also continue to improve their listening, reading and writing skills. This year will prepare seniors for college language study and juniors for the final year of French.

Learning expectations: 3, 8

Objectives: In addition to French 1, 2, and 3

1. To communicate in the target language using combinations of phrases.
2. To exchange opinions as well as support and/or defend them in the target language.
3. To write short essays.
4. To read short stories.

FRENCH 5 430

1.00 Credit Level: 1

Prerequisites: Passing grade of B or better French 4 or teacher recommendation.

Content: Students will review and study more French grammar. In this last year of language study, students will be expected to communicate entirely in French. They will also be reading and writing in the language refining their abilities in preparation for college.

Learning expectations: 2, 8

Objectives: Including the French 1,2, 3 & 4 objectives, students will prepare for college study by reviewing grammar points and refining their listening, speaking, reading, and writing skills.

FRENCH AP 400

1.00 Credit Level: AP

Prerequisites: Permission from the instructor for advanced placement status.

Content: This course will include direct conversation comprising more practice in aural-oral French and a deeper, wider vocabulary and cultural understanding.

Learning expectations: 3, 8

Objectives: Students will understand spoken language in both formal and conversational situations. They will speak with accuracy and fluency using appropriate pronunciation and intonation. They will read literature and informational texts with ease and accuracy. They will write effectively conveying ideas clearly and accurately.

*Students with advanced placement status will be required to spend additional time outside of class on aural-oral drills with tapes and/or the instructor.

LATIN 1 407

1.00 Credit Level: 1

Learning expectations: 2, 8

Grades: Students in grades 9-12

Prerequisites:

Content: Students will begin the study of Latin grammar and vocabulary. Students will read stories and develop oral and written translation skills from Latin to English. They will develop speaking (pronunciation), listening and writing skills in order to deepen their imaginative grasp of the literature and life of the Romans. They will begin the study of Greco-Roman culture and history. They will study English words derived from Latin. They will develop skills in English in order to express comprehension of the Latin text and personal reactions to the narratives and cultural information.

Learning expectations: 2, 8

Objectives:

1. To read Latin aloud with correct pronunciation.
2. To read, translate into English, and interpret adapted Latin texts.
3. To write simple Latin phrases and sentences
4. To demonstrate knowledge of topics from Greco-Roman culture and history.
5. To demonstrate knowledge of the meanings of English words derived from their first-year vocabulary.

LATIN 2 408

1.00 Credit Level: 1

Prerequisites: Passing grade in Latin 1.

Learning expectations: 2, 8

Content: Students will continue the study of Latin grammar and vocabulary. They will study more complex narrative structures and syntax in Latin while reading and translating stories into English. They will develop a broader and deeper knowledge of Greco-Roman culture and history.

Objectives: In addition to Latin 1

1. To engage in linguistic comparison between English and Latin.
2. To increase their speed, accuracy, style and polish in oral and written English translation of adapted Latin.
3. To write short narratives in Latin.
4. To demonstrate knowledge of topics from Greco-Roman culture and history.
5. To demonstrate knowledge of the meanings of English words derived from their second-year vocabulary.

LATIN 3 409

1.00 Credit Level: 1
Prerequisites: Passing grade in Latin 2
Learning expectations: 2, 8
Content: Students will continue to review Latin grammar. They will begin work on the concepts of diction and genre, as they read their first Latin authors in short selections. They will continue to deepen and refine their knowledge of Greco-Roman culture and history. The students will practice English writing skills for the analysis of literature and the discussion of history.
Objectives: In addition to Latin 1 and 2 objectives,

1. To read and translate authentic Latin prose texts (un-adapted).
2. To demonstrate a broad and deep knowledge of Greco-Roman culture and history as it relates to the prose writers.
3. To write English expository prose in various forms.
4. To demonstrate knowledge of the meanings of English words derived from their third-year vocabulary.

LATIN 4 407

1.00 Credit Level: 1
Prerequisites: Passing grade of B or better in Latin 3 or teacher recommendation.
Learning expectations: 1, 8
Content: Students will study poetic diction and poetic genres as they read a selection of Latin poets: Ovid, Catullus, Vergil, and if time permits, Horace. They will review Latin grammar, syntax and morphology. They will review Greco-Roman culture as it pertains to poetry; ancient Greek literature in translation will be studied. They will study and practice the literary analysis of Latin poetry in English and acquire all necessary terminology. This year should prepare seniors for college placement tests or further study of Latin literature in college.
Objectives: In addition to Latin 1, 2, and 3 objective

1. To produce oral and written translation of authentic Latin poetry into English.
2. To demonstrate a broad and deep knowledge of Greco-Roman culture as it relates to the Roman poets.
3. To analyze Latin poetry in English using appropriate literary terminology.

LATIN AP 420

1.00 Credit Level: AP
Prerequisites: Permission from the instructor for advanced placement status.
Learning expectations: 1, 8
Content: Students will fully experience authentic literature in Latin by reading one or two Latin poets in great depth, according to the AP syllabus chosen for each year (usually Ovid/Catullus or Vergil). They will review Latin grammar, syntax and morphology. They will review Greco-Roman culture and history as it pertains to poetry. They will study poetic diction and genre. They will study the literary analysis of poetry in English and acquire all the necessary terminology
Objectives: In addition to Latin 1, 2, and 3 objectives

1. To take the AP examination for college credit.
2. To demonstrate a broad and deep knowledge of one or two poets; their work, lives and the Greco-Roman cultural and historical setting.
3. To demonstrate the acquisition of college-level critical thinking and writing skills.
4. To interpret Latin poetry, demonstrating a mastery of the appropriate literary terminology.

MANDARIN CHINESE 1 451

1.0 Credit Level: 1
Prerequisites: Students in grades 11 -12
Learning expectations: 4, 8

Content: Students will study the essentials of Chinese grammar, vocabulary and idiomatic expression. They will be introduced to Chinese culture and develop speaking, listening, reading and writing skills appropriate to their level of study.
Objectives:

1) To communicate in the target language using basic words and expressions
2) To demonstrate knowledge of Chinese people, geography, history, and culture

SPANISH 1 410

1.00 Credit Level: 1
Prerequisites: Students in grades 9 – 12
Learning expectations: 4, 8
Content: Students will study the essentials of Spanish grammar, vocabulary and idiomatic expressions. They will be introduced to Spanish cultures and develop speaking, listening, reading and writing skills appropriate to their level of study.
Objectives:

1. To communicate in the target language using words and expressions.
2. To read and interpret informational texts.
3. To write lists and short notes.
4. To develop first year listening skills.
5. To demonstrate knowledge of Hispanic people, geography, history, and culture.

SPANISH 1 435

1.00 Credit Level: 2
Prerequisites: Students in grades 9 – 12
Learning expectations: 4, 8
Content: Students will study the essentials of Spanish grammar, vocabulary and idiomatic expressions. They will be introduced to Spanish cultures and develop speaking, listening, reading and writing skills appropriate to their level of study. This class will not move through the material as quickly as the level 1 class and it will review previous knowledge as well as complete the first year of language study. The class will be taught in English and Spanish.

Objectives:

1. To communicate in the target language using words and expressions.
2. To read and interpret informational texts.
3. To write lists and short notes.
4. To develop first year listening skills.
5. To demonstrate knowledge of Hispanic people, geography, history, and culture.

SPANISH 2 412

1.00 Credit Level: 1
Learning expectations: 2, 8
Prerequisites: Passing grade of A in Spanish 1 level 2.
Passing grade in Spanish 1 level 1.
Content: Students will increase their knowledge of Spanish grammar, vocabulary and idiomatic expressions. With more exposure to the target language they will improve their speaking, listening, reading and writing skills. As they study culture, they will acquire a general knowledge of the Spanish-speaking world. This class will be taught in Spanish.
Objectives: In addition to the Spanish 1

1. To communicate in the target language using phrases.
2. To read and interpret short stories and / or poetry.
3. To write postcards and short letters.
4. To develop second year listening skills.

SPANISH 2 436

1.00 Credit Level: 2
Learning expectations: 2, 8
Prerequisites: Passing grade in Spanish 1 level 2 or equivalent.
Content: Students will increase their knowledge of Spanish grammar, vocabulary and idiomatic expressions. With more exposure to the target language they will improve their speaking, listening, reading and writing skills. As they study culture, they will acquire a general knowledge of the Spanish-speaking world. This class will not move through the material as quickly as the level 1 class. It will review previous knowledge and begin the second year of language study. The class will be taught in English and Spanish.
Objectives: In addition to Spanish 1

1. To communicate in the target language using phrases.
2. To read and interpret short stories and / or poetry.
3. To write postcards and short letters.
4. To develop second year listening skills.

SPANISH 3 414

1.00 Credit Level: 1
Prerequisites: Passing grade of A in Spanish 2 level 2.
Passing grade in Spanish 2 level 1.
Learning expectations: 1, 8
Content: Students will study more advanced Spanish grammar and vocabulary. In the third year of second language acquisition the increased use of the target language by the students is the means by which they will improve their listening and speaking skills. Students will also improve their reading comprehension and writing skills. In this transition year, students will begin to express, in Spanish, their knowledge and understanding of Spanish culture.
Objectives: In addition to Spanish 1 and 2

1. To communicate in the target language using sentences.
2. To read and comprehend authentic and adapted materials.
3. To write letters and short reports.

SPANISH 3 442

1.00 Credit Level: 2
Prerequisites: Passing grade in Spanish 2 level 2
Learning expectations: 1, 8
Content: Students will study more advanced Spanish grammar and vocabulary. In the third year of second language acquisition the increased use of the target language by the students is the means by which they will improve their listening and speaking skills. Students will also improve their reading comprehension and writing skills. In this transition year, students will begin to express, in Spanish, their knowledge and understanding of Spanish culture. This class will be taught in Spanish using English as necessary to meet the needs of all students.
Objectives: In addition to Spanish 1 and 2

1. To communicate in the target language using sentences
2. To read and comprehend authentic and adapted materials
3. To write letters and short reports

SPANISH 4 415

1.00 Credit Level: 1
Prerequisites: Passing grade of B or better in Spanish 3 or teacher recommendation.
Learning expectations: 3, 8
Content: Students will continue to study the more complex structures of Spanish grammar. In this more advanced level of language study, students will begin to communicate entirely in Spanish. As they demonstrate more proficiency orally, they will also continue to improve their listening, reading and writing skills. This year will prepare seniors for college language study and juniors for their final year of Spanish.
Objectives: In addition to Spanish 1,2 & 3

1. To communicate in the target language using combinations of phrases.
2. To exchange opinions as well as support and/or defend them in the target language.
3. To write short essays.
4. To read short stories.

SPANISH 5 440

1.00 Credit Level: 1
Prerequisites: Passing grade of B or better in Spanish 4 or teacher recommendation.
Learning expectations: 2, 8
Content: Students will review and study more Spanish grammar. In this last year of language study, students will be

expected to communicate entirely in Spanish. They will also be reading and writing in the language refining their abilities in preparation for college.
Objectives: Including the Spanish 1,2, 3 & 4 objectives, students will prepare for college study by reviewing grammar points and refining their listening, speaking, reading, and writing skills.

SPANISH AP 416

1.00 Credit Level: AP
Prerequisites: Permission from the instructor for advanced placement status.
Learning expectations: 3, 8
Content: This course will include direct conversation comprising more practice in aural-oral Spanish and a deeper, wider vocabulary and cultural understanding.
Objectives: Students will understand spoken language in both formal and conversational situations. They will speak with accuracy and fluency using appropriate pronunciation and intonation. They will read literature and informational texts with ease and accuracy. They will write effectively conveying ideas clearly and accurately
*Students with advanced placement status will be required to spend additional time outside of class on aural-oral drills with tapes and/or the instructor.

• MATHEMATICS •

GRADE 9

ALGEBRA 1 201

1.00 Credit Level: 1
Prerequisites: Two out of three of the following:
Grade Eight teacher recommendation. Minimum B average in Grade 8 math. Proficiency demonstrated on placement test.
Learning expectations: 7
Objectives:
1. To understand patterns, relations, and functions as related to the real number system.
2. To develop proficiency in operations with polynomials.
3. To develop proficiency in handling special products and factoring.
4. To develop the ability to work with roots and radicals.

Contents: Topics include solving equations and inequalities, data analysis, coordinate geometry, polynomials, quadratic equations, functions and relations, selected topics in geometry, elementary probability and statistics.

ALGEBRA 1 202

1.00 Credit Level: 2
Prerequisites: Two out of three of the following:
1. Passing grade in 8th Grade math.
2. Grade 8 teacher recommendation.
3. Minimal performance on placement test.

Learning expectations: 2, 7
Objectives:
1. To review and strengthen basic skills needed for MCAS exam and NCTM topics in algebra and selected topics in geometry.
2. To understand patterns, relations and functions as related to the real number system.
3. To develop an understanding of data collection and analysis.

Contents: Topics include an introduction to variables, use of formulas, solving equations and inequalities, polynomials, coordinate geometry, data analysis, elementary probability and statistics, and selected topics in geometry.

ALGEBRA 1 203 (ACCELERATED)

1.00 Credit Level: 1
Prerequisites: Grade of 73 or better in Grade 8 Algebra I
Learning expectations: 7
Objectives:
1. To strengthen basic Algebra I skills.
2. To understand patterns, relations, and functions as related to the real number system.
3. To develop proficiency in operations with polynomials.
4. To develop proficiency in handling special products and factoring.
5. To develop the ability to work with roots and radicals.

Content: Topics include solving equations and inequalities, data analysis, coordinate geometry, polynomials, quadratic equations, functions and relations, selected topics in geometry, elementary probability and statistics.

ALGEBRA 2 236 (ACCELERATED)

1.00 Credit Level: 1
Prerequisites:
1. Minimum average of B+ in Grade 8 Algebra I
2. Exemplary performance on placement test.

Learning expectations: 5, 7
Objectives:
1. To create a clear understanding of the real number system (properties and structure).
2. To demonstrate that two-dimensional geometric figures can be represented algebraically and that the relationship between two variables can be represented graphically and algebraically.

Contents: A course including a review of Algebra I, a limited amount of proof and a detailed discussion of the following topics: the real and complex number systems, mathematical models, particularly polynomial, exponential, logarithmic

functions, inequalities over the domain of real numbers and subsets thereof, matrices and determinants, instruction in the use of graphing calculators and explore applicable problems related to the subject being taught.

GRADE 10

GEOMETRY 204

1.00 Credit Level: 1
Prerequisite: Minimum B- average in Algebra I 203 or Algebra I 201
Learning expectations: 7
Objectives:
1. To develop an understanding of the relationship between Algebra and Geometry.
2. To show the relationships among points, lines, and planes in a space.
3. To reason logically toward a conclusion.

Content: This is a formal course in geometry including both proof and computation in varying degrees of difficulty. Topics studied include principles of logic, sets, angles, angle measures and relationships, perpendicular lines, parallel lines and planes, congruent triangles and their applications, similar polygons, circles, construction, loci, coordinate geometry, transformations, areas, and volumes.

GEOMETRY 225 (ACCELERATED)

1.00 Credit Level: 1
Prerequisite: Minimum B- average in Algebra II 236
Learning expectations: 7
Objectives:
1. To develop an understanding of the relationship between Algebra and Geometry.
2. To show the relationships among points, lines, and planes in a space.
3. To reason logically toward a conclusion.

Contents: This is a formal course in geometry including both proof and computation in varying degrees of difficulty. Topics studied include principles of logic, sets, angles, angle measures and relationships, perpendicular lines, parallel lines and planes, congruent triangles and their application, similar polygons, circles, construction, loci, coordinate geometry, areas, and volumes.

GEOMETRY 205

1.00 Credit Level: 2
Prerequisites: Passing grade in Algebra 202
Learning expectations: 7
Objectives:
1. To reinforce MCAS skills through extended topics in geometry.
2. To demonstrate an understanding between points, lines, planes in space.
3. To be able to identify angle relationships.
4. To demonstrate an understanding of similarity and congruency.

Content: Topics include principles of logic, sets, angles, angle measures and relationships, perpendicular lines, parallel lines and planes, congruent triangles and their applications, congruent polygons, similar polygons, circles, construction, coordinate geometry, transformations, areas, and volumes.

GRADE 11

ALGEBRA 2 206

1.00 Credit Level: 1
Prerequisites: Minimum B-average in Algebra I 201 and Geometry 204
Learning expectations: 5, 7
Content: A course including a review of Algebra I, a limited amount of proof and a detailed discussion of the following topics: the real and complex number systems, mathematical models, particularly polynomial, exponential, logarithmic functions, inequalities over the domain of real numbers and subsets thereof, matrices and determinants, instruction in the use of graphing calculators and exploring applicable problems related to the subject being taught.

ALGEBRA 2 207

1.00 Credit Level: 2
Prerequisites: Minimum of C+ average in Algebra I L2 or average below B- in Algebra I L1 and passing grade in Geometry.
Learning expectations: 7
Objectives:
1. To further develop proficiency in operations with polynomials.
2. To further develop proficiency in handling special products and factoring.
3. To understand the word relations and functions in a mathematical content.
4. To create a clear understanding of the real number system.

Contents: A course including an intensive review of algebra material, particularly linear and quadratic functions and relations. In addition, inequalities, systems of equations, exponents and logarithms will form the remainder of the course.

INTERMEDIATE ALGEBRA 234

1.0 Credit Level: 2
Prerequisites:
1. Passing grade in Geometry level 2
2. Passing grade of C or lower in Algebra 1 Level 2
3. Teacher Recommendation

Learning Expectations: 7
Objectives:

1. To develop a clearer understanding of the real number system including its properties and structure.
2. To further develop proficiency in solving first and second degree equations and inequalities.
3. To develop a clear understanding of linear and quadratic relations and functions through analytic and graphical methods.
4. To develop an understanding of linear algebra through systems of equations and matrices.

Contents: This course will provide an alternate route for students to earn the third required credit in math. Students who successfully complete this course will be able to enroll in Algebra 2 level 2 as a fourth credit their senior year. Students who successfully complete Math Topics but did not score proficient on MCAS may also enroll in this class their senior year.

MATH TOPICS and APPLICATIONS 232

1.00 Credit Level: 2
Prerequisites: Course is designed for students who have completed Algebra 1 L2 and Geometry L2 with averages below 67 but who need additional reinforcement of basic skills and concepts involved in pre-algebra, algebra 1 and geometry. Teacher recommendation will be required.
Learning expectations: 7
Objectives:

1. To provide a third year of math for students not ready to take Algebra II.
2. To reinforce basic rules and skills for Algebra I and Geometry.
3. To provide meaningful applications using basic skills.
4. To develop the ability to make inferences from graphical representations.
5. To develop a basic working knowledge of probability and statistics.
6. To develop an understanding of cost, revenue, and profit functions.
7. To have a working knowledge of simple interest, compound interest, annuities, credit cards, and mortgages.

Content: Course will be divided into four components. The first component will review basic algebra skills, absolute value, literal equations, manipulation of formulas, coordinate geometry, and modeling. The second component will review basic skills from geometry, conversions of units of measurement, perimeter, area, surface area, volume, and applications. The third component will consist the of basics of probability and statistics including graphical representations, measures of central tendency, and measures of dispersion. The fourth component will deal with business and finance concepts and their applications.

PRE-CALCULUS 209

1.00 Credit Level: 1.
Prerequisites: Minimum B+ average in Algebra II 206 and B in Geometry 204
Learning expectations: 5, 7
Objectives:

1. To offer an in-depth study of concepts necessary in the study of calculus.
2. It is intended for students who will take calculus as a next course.

Contents: Review of Algebra II and geometric concepts as needed. The following topics will be covered in depth: general functions and their properties and graphs; polynomial functions, properties and graphs; exponential and logarithmic functions, properties and graphs; circular functions, properties, graphs and formulas; analytic trigonometry; inverse trigonometric functions; polar coordinates; vectors and their properties; parametric equations. Provide instruction in the use of graphing calculators and explore applicable problems related to the subject being taught.

PRE-CALCULUS 229 (ACCELERATED)

1.00 Credit Level: 1
Prerequisites: Minimum B- average in Algebra II 236 and Geometry 225
Learning expectations: 5, 7
Objectives:

1. To offer an in-depth study of concepts necessary in the study of calculus.
2. It is intended for students who will take calculus as a next course.

Contents: Review of Algebra II and geometric concepts as needed. The following topics will be covered in depth: general functions and their properties and graphs; polynomial functions, properties and graphs; exponential and logarithmic functions, properties and graphs; circular functions, properties, graphs and formulas; analytic trigonometry; inverse trigonometric functions; polar coordinates; vectors and their properties; parametric equations. Provide instruction in the use of graphing calculators and explore applicable problems related to the subject being taught.

ADVANCED PLACEMENT STATISTICS 244

1.00 Credit Level: AP
Prerequisite: Grade of B- in Probability and Statistics or Pre-Calculus Accelerated
Learning expectations: 5, 7
Objectives:

1. To explore data and observe patterns and departures from patterns.
2. To collect data according to a well developed plan and analyze it properly.
3. To produce models using probability theory and simulation.
4. To use statistical inference as a guide in the selection of appropriate models.

Contents: The course will focus on the exploration of statistical concepts and problems that are the core of the Advanced Placement Statistics curriculum, with a strong emphasis on inferential statistics. Students will take part in hands-on investigations of statistical data and models, and be instructed in the effective use of graphing calculators and statistical software.
Term Assignment Required: Summer work must be completed before the course begins.

GRADE 12

CALCULUS ACCELERATED 208

1.00 Credit Level: 1
Prerequisites: Minimum B- average in Pre-calculus 229. Summer work must be completed before course begins.
Learning expectations: 5, 7
Objectives:
1. To enable students to handle ideas such as velocity, area, volume, rate of change continuity, tangent lines.
2. To gain an understanding and a working knowledge of the words "derivative, and "integral,, within the context of two-dimensional space.

Content: Differential and integral calculus in two dimensions with applications. The subject includes finding and applying derivatives and integrals. Strengthen student's knowledge of algebraic, trigonometric, and exponential functions. Provide instruction in the use of graphing calculators and explore applicable problems related to the subject being taught.

ADVANCED PLACEMENT CALCULUS 220

1.00 Credit Level: AP
Prerequisites: Minimum A- average in Pre-calculus 229. Recommendation of Pre-calculus instructor.
Learning expectations: 5, 7
Objectives:
1. To provide students with the appropriate curriculum required for AP credit.
2. To enable students to acquire a working understanding and knowledge of derivatives and integrals.

Contents: Differential and integral calculus in two dimensions with applications; finding and applying derivatives and integrals, increasing student's knowledge of algebraic, trigonometric, exponential, and development of theories and techniques of the calculus as described by the College Board. Provide instruction in the use of graphing calculators and explore applicable problems related to the subject being taught.
Term Assignment Required: Summer work must be completed before the course begins.

SENIOR MATHEMATICS 210

1.00 Credit Level: 2
Prerequisites: Minimum C average in Algebra II 207 and Geometry 205
Learning expectations: 7
Objectives:
1. To become more proficient in the knowledge of algebraic and geometric concepts.
2. To demonstrate the real-life applications of these concepts.
3. To strengthen the mathematical background of the student preparing for college.
4. To introduce and strengthen personal finance and money management skills.

Content: Review of geometry: points, lines, planes, angles, polygons, perimeter, area, and volume. Review of rational and irrational numbers: properties, operations, exponents, and scientific notation. Review of algebra: solving and graphing linear and quadratic equations and inequalities, variation, functions, system of equations, and matrices. Consumer mathematics: percents, simple and compound interest, installment buying, personal loans, credit cards, and mortgages.

TOPICS IN ADVANCED ALGEBRA 246

1.0 Credit Level: 1
Prerequisites: Completion of Algebra I Level I, Geometry Level I, and a grade of C or better in Algebra II Level I.
Learning expectations: 5, 7
Objectives:
1. To demonstrate an understanding of the relationships between cost, revenue and profit functions.
2. To graphically represent supply and demand curves and analyze market equilibrium.
3. To demonstrate an understanding of matrices and systems of equations.
4. To demonstrate an understanding of linear programming.
5. To demonstrate an understanding of the mathematics of finance.

Course Description: This course is designed to help students expand their working knowledge of real numbers, equations, inequalities, radicals, rational expressions, graphing linear models, simultaneous equations, and matrices. Applications will concentrate on cost, revenue, and profit functions; supply and demand functions; break-even analysis. In addition, students will learn how to create feasibility regions; maximize and minimize objective functions; analyze exponential and logarithmic functions and their graphs; use formulas for finance applications. Additional topics may include the use of limits, continuity, derivatives and optimizing as related to cost, revenue and profit applications.

• MATHEMATICS ELECTIVES •

ELECTIVES MAY NOT BE USED TO REPLACE ANY SEGMENT OF THE MATHEMATICS GRADUATION REQUIREMENTS

TRIGONOMETRY 211

0.50 Credit Level: 1
Prerequisites: Currently enrolled in or successfully have completed pre-calculus.
Learning expectations: 5, 7
Objectives:

1. To provide an opportunity to learn the skills needed by students who plan on a technical career or who plan to further their mathematical study.
2. To understand the structure and functions of angles.
3. To be able to use trigonometry as a tool for studying other topics.

Contents: Review of algebraic and geometric concepts as needed. The following topics will then be covered: trigonometric functions and their graphs; inverse trigonometric equations; trigonometric identities; use of calculators in doing trigonometric calculations; trigonometric formulas and their uses.

TRIGONOMETRY 231

0.50 Credit Level: 1
Prerequisites: Currently maintaining a minimum C average in Algebra II 206 or completion of Algebra II 206 with a minimum C average.
Learning expectations: 5, 7
Objectives:

1. To provide an opportunity to learn the skills needed by students who plan on a technical career or who plan to further their mathematical study.
2. To understand the structure and functions of angles.
3. To be able to use trigonometry as a tool for studying other topics.

Contents: Review of algebraic and geometric concepts as needed. The following topics will then be covered: trigonometric functions and their graphs; inverse trigonometric equations; trigonometric identities; use of calculators in doing trigonometric calculations; trigonometric formulas and their uses.

ELEMENTARY PROBABILITY & STATISTICS 217

0.50 Credit Level: 1
Prerequisites: Either taking and maintaining a minimum C average or have completed Algebra II 206 with a minimum C average.
Learning expectations: 5, 7
Objectives:

1. To become an aware citizen by being exposed to the uses, misuses, and abuses of statistics.
2. To know the various types of discrete and continuous probability distributions.
3. To understand and use the concepts of linear regression and correlation.

Contents: A course dealing with collecting and analyzing raw data and making inferences from the data. Distributions, hypothesis testing, and predication constitute major areas of study. This course will be very useful for those students interested in the social and physical sciences. The computer and calculators will be useful tools.

MCAS PREPARATION 254

0.25 Credit Level: 2
Required of grades 9 & 10 who have failed MCAS, taken in addition to regular math course.
Learning expectations: 7
Content: MCAS preparation activities will be presented to students who did not pass the Math MCAS test. The course is designed to focus on the objectives of the MCAS test. Math strands will be reviewed, practice work will be provided and sample evaluations will be conducted to assess the student's progress.

MCAS PREPARATION 255

0.25 Credit Level: 2
Required of grades 11 & 12 who have failed MCAS, taken in addition to regular math course.
Learning expectations: 7
Content: MCAS preparation activities will be presented to students who did not pass the Math MCAS test. The course is designed to focus on the objectives of the MCAS test. Math strands will be reviewed, practice work will be provided and sample evaluations will be conducted to assess the student's progress.

MATH QUEST 257

0.50 Credit Level: None
Prerequisites: This elective option is open only to grade 10 students who have successfully completed or currently are enrolled in Algebra 1, and who have scored on Grade 8 Math MCAS below the proficiency level.
Learning expectations: 5, 7
Objectives:

1. To provide a hands-on, project based approach to mathematics
2. To allow students to see ways to apply mathematics in real-life careers
3. To target the standards required to pass MCAS
4. To provide sample MCAS style problems for practice

Content: This course will be comprised of a number of hands-on projects and activities that are career-oriented. Each of these projects will be selected to ensure that the 9th and 10th MA State Math standards are addressed. Examples of projects and activities will include creation, graphical representation, and analysis of data banks; linear relationships; architectural designing and budget analysis. Technology use will include graphing calculators and Geometer's Sketchpad

MATH FOUNDATIONS 258

.25 Credit Level: 2
Prerequisites: Teacher recommendation based on 7th grade MCAS score and academic performance in 8th grade math.
Learning Expectations: 7
Objectives:
1. To develop an understanding of the relationships between the sets of numbers.
2. To develop proficiency with arithmetic operations involving rational numbers and algebraic expressions.
3. To further develop skills and basic concepts involving statistical data and formulas.
4. To further develop the understanding of geometric formulas.

Content: This course is designed to help students who have difficulty in math. The course will be taken concurrently with Algebra 1 and 0.25 credits would be earned toward graduation credits but not as part of the required three math credits. The class will meet every other day during one semester.

• SCIENCE •

Grade 9

PHYSICAL SCIENCE 301

1.00 Credit Level: 1
Prerequisites: Students must be concurrently taking Algebra I 201 with this course or have taken it previously at the middle school level.
Learning expectations: 1, 7
Objectives:
1. To prepare the student for further studies in Chemistry and Physics and to acquaint the student with the chemical and physical aspects and behaviors of science.

Contents: This course will familiarize the student with scientific method, metrics, laboratory procedures in chemistry and physics, force, work, energy, fluids, chemical reactions, electricity, and light.
Term Assignments Required: Annual project or research paper.
Upon completion of this course, students will:
1. Have developed problem solving and critical thinking skills
2. Know how to use science-related tools and instruments.
3. Be prepared to take the MCAS exam.

PHYSICAL SCIENCE 332

1.00 Credit Level: 2
Prerequisites: None
Learning expectations: 1, 7
Objectives:
1. This course is a full year course that covers chemistry concepts in the first semester and physics concepts in the second semester. There will be less emphasis on depth of knowledge and math formulas than physical science level 1.

First Semester: Chemistry concepts covered are matter, density, atoms compounds and mixtures, chemical formulas, reactions, suspensions and acids, bases and salts.
Second Semester: Topics include forces, energy, motions, machines, heat waves, sound, light and electricity. This program is a hands on program and appropriate lab activities and projects will be incorporated into each unit.
Upon completion of this course, students will:
1. Have developed problem solving and critical thinking skills.
2. Know how to use science-related tools and instruments.
3. Be prepared to take the MCAS exam.

BIOLOGY, L1 303

1.00 Credit Level: 1
Prerequisites: Passing grade in Physical Science LI and currently taking or have taken Algebra I L1.
Learning expectations: 1, 7
Objectives:
1. To develop an understanding of biology as a process of inquiry devoted to attacking problems presented by the natural world.
2. To develop critical thinking, not just memorization.
3. To develop the scientific attitude of open-mindedness, judgment, cause and effect.
4. The introduction of basic biological functions and phenomena so that the students may relate these ideas to their own existence.
5. To create a more complete concept of life and its complexities.

Contents: Course includes a survey of plants, animals and microorganisms in relationship to their structure and function. Special emphasis will be placed on cell structure and functions, genetics, systems biology, and ecological concepts, and evolution.
Upon completion of the course students will:
1. Have met all of the requirements for the MA Curriculum Frameworks.
2. Developed laboratory and problem solving skills through various laboratory activities.
3. Developed skills in mastering problems relative to MCAS testing programs.

Grade 10

BIOLOGY, L2 304

1.00 Credit Level: 2
Prerequisites: Passing grade in Physical Science L1 or L2.
Learning expectations: 1, 7
Objectives:
1. To familiarize students with various methods biologists use to study life.

2. To give experience in working with the tools of a biologist.
3. To help create a realization that our natural resources must not be abused and that all species of plant and wildlife should be preserved through control.

Contents: Cell function, cell division, chromosome structure and function, inheritance, natural selection, evolution, population growth, cooperation and competition, animal maintenance, plant ecology, and systems biology.
Term Assignments Required: Research reports.

Upon completion of the course students are :
1. To meet all the requirements of the MA curriculum frameworks.
2. To develop skills in mastering problems relative to the MCAS testing programs.
3. To be able to understand the theories and models that scientists use to explain observations of nature.

CSI 323
Connecting Science Information

.50 Credit Level: None
Prerequisites: 10th grade students scoring below proficiency level on the MCAS test in grade 8 and/or earning a grade of D or lower in 9th grade Physical Science.
Learning expectations: 1, 7
Objectives: Through problem-solving and critical-thinking activities, the students will come to understand and investigate the essential points of biology.
Contents: Basic biology woven into everyday topics, assessed through hands on activities, and projects. Areas to be stressed will be re-evaluated each year based upon MCAS results.
Term Assignments Required: Term paper and or/End of year project.

Grade 11

ANATOMY AND PHYSIOLOGY 309

1.00 Credit Level: 1
Prerequisites: Passing grade in Biology L1 or B+ or better in Biology L2
Learning expectations: 1, 7
Objectives:
1. To develop basic skills and abilities necessary to understand the process of science.
2. Meet the individual needs of students to prepare for higher education, to study in an area of biological interest, or to enter a health related profession.

Contents: After learning basic background information, the human body is investigated by body system. Each system is organized in three systems. The anatomy of the system identifies and relates the individual parts to the whole. The physiology of the system provides an understanding of the function of the parts of the system. The pathology of the system relates a specific disorder to the abnormal functioning of the whole organism.
Term Assignment Required: End of year project.

ANATOMY AND PHYSIOLOGY, L2 320

1.00 Credit Level: 2
Prerequisites: Passing grade in Biology L2 or Biology L1
Learning expectations: 1,7
Content: After learning basic background information, the human body is investigated by body system. Each system is organized in the three disciplines of anatomy, physiology and pathology. The anatomy of the system identifies and relates the individual parts to the whole. The physiology of the system provides an understanding of the function of the parts to the system. The pathology of the system relates a specific disorder to the abnormal functioning of the whole organism.
Objectives:
1. To develop critical thinking, basic skills, and abilities necessary to understand the processes of human life
2. Meet the individual needs of students to prepare for two-year college or technical school programs. Especially in the areas of biology and health related careers.

Term assignments required: Term paper and/or end of year project

CHEMISTRY THEORY ACCELERATED 318

1.00 Credit Level: 1
Prerequisites: Grade of A- or better in Algebra 1 L1, B+ or better in Accelerated Algebra 1 or Accelerated Algebra 2. Grade of A or better in Physical Science L1 and B or better in Biology L1.
Learning expectations: 1, 7
Objectives: This course is designed for students who excel in math and science and who would like to pursue a further education in science. The course follows the same textbook as Chemistry Theory but moves at a faster pace with more challenging labs and assignments. It is hoped that students who complete Chemistry Theory Accelerated with a grade of A- or above will continue onto AP Chemistry the following year.
Description: Chemistry Theory Accelerated introduces the student to the basic principles of general chemistry while promoting critical thinking in a challenging environment. An introduction to AP Chemistry laboratory work will be covered. Topics include atomic structure, stoichiometry, periodic law, measurement, chemical reactions, bonding, solutions, gases acids and bass, thermochemistry and electrochemistry.
Upon completion of this course the student will be able to:
1. Will have a strong education in chemical background and theories.
2. Will understand and feel comfortable in performing advanced laboratory procedures.
3. May wish to continue onto AP Chemistry.

CHEMISTRY THEORY 305

1.00 Credit Level: 1

Prerequisites: The student must have passed Physical Science, CP Biology, and Algebra 1 with a grade of B or better. The student should be taking Algebra 2 concurrently.
Learning expectations: 1, 7
Objectives: The objective of this course is to meet the requirements of Massachusetts Science Framework but will also prepare the student for other chemistry and chemistry related courses required by most places of higher education.
Description: Chemistry Theory introduces the student to the basic principles of general chemistry. The major topics of discussion are scientific measurement, matter, the mole, atomic structure, periodic law, bonding, chemical formulas and reactions, gases, solutions and acids and bases.
Upon completion of this course the student will be able to:

4. Solve problems
5. Think critically
6. Make formal statements of principles in chemistry and understand their implications.

CHEMISTRY APPLIED 306

1.00 Credit Level: 2
Prerequisites: The student must have passed Physical Science L1 or L2 and should be taking Algebra 2 concurrently.
Learning expectations: 1, 7
Objectives: The objective of this course is to meet the requirements outlined in the Massachusetts Science and Technology/Engineering Curriculum Framework. This course will meet the needs of those students not planning further formal education, and those wishing to attend a two-year college.
Description: Chemistry Applied Theory introduces the student to the basic principles of general chemistry. The major topics of discussion are scientific measurement, matter, the mole, atomic structure, periodic law, bonding, chemical formulas and reactions, gases, solutions and acids and bases.
Upon completion of this course the student will be able to:

1. Identify and work with the current atomic model/theories.
2. Read Periodic Table of the Elements.
3. Understand chemical reaction.

ENVIRONMENTAL SCIENCE 341 342

1.00 Credit Level: 1& 2
Prerequisites: Successful completion of grades 9 and 10 level one science courses for level one or successful completion of grades 9 & 10 science courses for level 2.
Learning expectations: 1, 7
Contents: This course emphasizes the various types of environments found on our planet and the factors that influence and affect these environments including human impact. Special emphasis will be given to ecological interactions, biomes, ecosystems, energy resources, resources in the biosphere and managing human impact. A special feature of the program will be the continuation of the on site GLOBE environmental program using on site areas with reporting of results to NASA in Boulder, Colorado via Internet communications. New activities will include water, air and soil analysis. The difference between level 1 & 2 will be the speed, depth and mathematical analysis in the two programs. The possibility also exist of working with local, state and federal agencies on environmental issues.
Upon completion of the courses, students will be familiar with:

1. How the elements carbon, hydrogen, and oxygen (along with numerous elements in lesser quantities) combine to form the molecules of living organisms.
2. How organisms may cooperate or compete in ecosystems
3. How local effects of an environment may affect the global system.

FORENSIC 324

Credit: .50 Level: 1
Grades: 11, 12
Prerequisites: Passing grade in C.P. Biology Grade of B or better in General Biology currently taking Chemistry
Learning expectations: 1, 7
Objectives: (1) To develop critical thinking, basic skills, and abilities necessary to understand aspects of all major sciences in addition to aspects found in Sociology and Psychology. (2) Meet the individual needs of students to prepare for 2 year college or technical school programs, especially in the areas of biology and health related careers that stress lab skills.
Contents: Forensic science will provide an opportunity for cooperative learning, mimicking the team aspect of real-life and teams of TV crime-solvers. This is a lab based course that allows students to work together to expand their knowledge while allowing the individual to showcase their own natural strengths. Biotechnology will be incorporated into the class.
Term Assignments Required: Term paper and or/End of year project.

FORENSIC 325

Credit: 1.0 Level: 2
Prerequisites: Passing grade in C.P. Biology or General Biology
Learning expectations: 1, 7
Objectives: (1) To develop critical thinking, basic skills, and abilities necessary to understand aspects of all major sciences in addition to aspects found in Sociology and Psychology. (2) Meet the individual needs of students to prepare for 2 year college or technical school programs, especially in the areas of biology and health related careers that stress lab skills.
Contents: Forensic science will provide an opportunity for cooperative learning, mimicking the team aspect of real-life and teams of TV crime-solvers. This is a lab based course that allows students to work together to expand their knowledge while allowing the individual to showcase their own natural strengths. This course will stress lab activities.
Term Assignments Required: Term paper and or/End of year project.

OCEANOGRAPHY 311

0.50 Credit Level: 2

Prerequisites: Passing grade in Physical Science **Note:** Preference will be given to seniors to fill course first.
Learning expectations: 1, 7
Objectives: To present the study of marine science and its importance in today's world; to study living creatures of the marine environment and to study the nature of ocean structures in ocean waters.
Contents: This course includes the study of marine geology, physical, chemical, meteorological, and biological aspects of oceanography, and an introduction to the studies of fisheries and ocean engineering.
Term Assignment Required: Term paper and/or project.
Upon the conclusion of this course: Students will be familiar with and understand the forces of wave motion and the categories of different types of waves, that changes are predictable and sometimes catastrophic in ecosystems, and that frictional forces have effects on the movement of objects.

METEOROLOGY 312

0.50 Credit Level: 2
Prerequisites: Passing grade in Physical Science **Note:** Preference will be given to seniors to fill course first.
Learning expectations: 1, 7
Contents: This course includes the study of many varied influences man has on weather and the influences that weather has on man, forces in nature, seasonal changes on earth, various forms of precipitation, and weather forecasting. Students will make use of weather Net Station in tracking weather.
Term Assignment Required: Term Paper and/or project.
Upon the conclusion of this course: Students will be able to understand Newton 's Laws of Motion, the effects of frictional forces on motion, and that heat energy can be transferred by conduction, radiation, convection, and mass transfer. and application in weather forecasting.

PHYSICS THEORY 307

1.00 Credit Level: 1
Prerequisites: A grade of C or better in Physical Science L1 and Algebra I L1, currently taking Algebra II L1.
Learning expectations: 1, 7
Objectives:
1. This course is designed for the engineering, math, physics, and other science majors (Medicine, Veterinary, Dental, BS in Nursing, Biology, Chemistry, etc.) who have special facility and interest in math and science. Special effort is made toward combining cultural and philosophical aspects of physics with the process of learning to actually use physics in solving a wide range of problems.

Contents: This course will focus on the topics of
1. Mechanics.
2. Electricity & Magnetism.
3. Light, Waves & Optics.
4. Atomic Physics. This course will consist of lecture/demonstration periods with some extended periods for laboratory work. Both experiments and projects will entail the use of technology, including CBL Units with the graphing calculator, and computers for data collection, measurement, analysis and design. Experiments and projects will focus on inquiry and teamwork.

Term Assignments Required: Research paper and/or project is required. Outside reading will be required.
Skills acquired as a result of taking this course: Students successfully completing this course will have a basic understanding of the physical world in which they live as well as the natural laws which govern the events which take place in their daily lives. Students will also attain skills necessary for investigating and resolving problems using the scientific method, as well as suitable equipment and techniques. In addition, through systematic processes of investigation in an open ended format students will be able to research unknown problems.

PHYSICS APPLIED 308

1.00Credit Level: 2
Prerequisites: Passing grade in Physical Science L1or L2 and Algebra I.
Learning expectations: 1, 7
Objectives:
1. To present the fundamental ideas of physics with a minimum of mathematics.
2. To make the student knowledgeable about many of the main currents of scientific progress over the past centuries.
3. To aid the student in discovering the relevance of science to all other fields.

Contents: The course will deal primarily with the topics of
1. Mechanics.
2. Conservation of Energy and Momentum.
3. Heat and Heat Transfer
4. Waves.
5. Electricity & Magnetism.
6. Electromagnetic Radiation.
7. Atomic & Nuclear Physics. This course will consist of lecture/demonstration periods with some extended periods for laboratory work. Both experiments and projects will entail the use of technology, including CBL Units with the graphing calculator, and computers for data collection, measurement, analysis and design. Experiments and projects will focus on inquiry and teamwork.

Term Assignments Required: Research paper and/or project is required. Outside reading will be required.
Skills acquired as a result of taking this course: Students successfully completing this course will have a basic understanding of the physical world in which they live as well as the natural laws which govern the events which take place in their daily lives. Students will also attain skills necessary for investigating and resolving problems using the scientific method, as well as suitable equipment and techniques.

Grade 12

ADVANCED BIOLOGY 313

1.00 Credit Level: 1

Prerequisites: Passing grade in CP Biology and Chemistry, L1.
Learning expectations: 1, 7
Objectives:

1. To realize the complexity and importance of biochemical reaction living systems.
2. To view the cell as a complex structure and understand the functions involved in its complexity.
3. To develop in students an appreciation of the continuity found in life.
4. To develop an understanding and appreciation of the role of biotechnology in our lives.
5. To create an awareness of the complexity of life and be able to relate all areas covered in the course into this complex structure.

Contents: This course includes an in-depth study of biological concepts such as biochemistry, cell biology, cell energetics, synthesis, genetics, DNA science and biotechnology, embryology and human development. Extensive lab work is included in all areas of the program with an emphasis on DNA science and biotechnology.
Upon completion of the program, students:

1. Will have become familiar with the techniques and importance of biotechnology in their lives.
2. Will have developed problem solving skills in the fields of science.
3. Will have been exposed to advanced concepts in biochemistry, genetics, cell physiology and biotechnology.

Term Assignments Required: Lab Projects and Reports.

ADVANCED PLACEMENT BIOLOGY 314

1.50 Credit Level: AP
Prerequisites: Teacher recommendation, grade of A- or better in Biology L1and Chemistry Theory or B+ or better in Accelerated Chemistry. Completion of summer project before the new school year class starts.
Learning expectations: 1, 7
Objectives: To help students develop a conceptual framework for modern Biology, and to help students gain an appreciation of Biology as a process. Students are required to grasp Biology as a process by using personal experience in scientific inquiry; by recognizing unifying themes; and by applying biological knowledge and critical thinking to environmental and social concerns. This course will conform to the standards for Advanced Placement Biology as given by the College Board
Contents: This course will focus on the following eight unifying themes that will allow the student to appreciate the delicately balanced interdependency of life:

1. Science as a process
2. Evolution
3. Energy Transfer
4. Continuity and change
5. Relationship of structure and function
6. Regulation
7. Interdependence in nature
8. Science, technology, and society

Upon the conclusion of this course: the student will be able to successfully complete the Advanced Placement Biology Exam developed by the College Board
Term Assignment Required: Students will be required to successfully complete summer assignments in the Plant Kingdom and Ecology and turn these in on the first day of school.

ADVANCED PLACEMENT CHEMISTRY 315

1.50 Credit Level: AP
Prerequisites: Teacher recommendation and a grade of B or higher in Biology L1, a grade of A or higher in Chemistry Theory or a grade of A- or higher in Accelerated Chemistry. Concurrently taking or have taken Pre-calculus. Completion of summer project before the new school year class starts.
Learning expectations: 1, 7
Objectives:

1. To give the second year Chemistry student a college level course. The course is designed to give a depth of understanding of fundamentals and a reasonable competence in dealing with chemical problems. The course will contribute to the development of the students' abilities to think clearly and to express their ideas, orally and in writing, with clarity and logic. This course differs from the first year Chemistry course with respect to the kind of textbook used, the topics covered, the emphasis on chemical calculations and the mathematical formulation of principles, and the kind of laboratory work done by students. Quantitative differences appear in the number of topics treated, time spent on the course by students, and the nature and variety of experiments done in the laboratory. This course will conform to the standards for Advanced Placement Chemistry as given by The College Board.

Contents: This course will stress principles and concepts and their relations to the descriptive chemistry on which they are based through various methods of instruction including laboratory work. : Structure of matter, States of matter, Reactions, Descriptive chemistry.
Upon completion of this course: the student should be able to successfully complete the Advanced Placement Chemistry Exam developed by The College Board.
Term Assignment Required: Summer work must be completed before the course begins.

• SOCIAL STUDIES •

Grade 9

WORLD HISTORY 123, 124

1.00 Credit Level: 1, 2
Required of all Grade 9 Students
Learning expectations: 1, 2
Objectives: This Freshman course covers world history events from the rise of the nation in Europe (1500-1800) to the present.

World history is a year-long course that includes, but is not limited to, the following topics: the origins and consequences of the Industrial Revolution; 19th century political reform in Western Europe; imperialism in Africa, Asia, and South America; the causes and consequences of the great military and economic events of the past century; the rise of nationalism and the continuing persistence of political, ethnic, and religious conflicts in many parts of today's world.

Grade 10

UNITED STATES HISTORY 1 125, 126

1.00 Credit Level: 1, 2
Required of all grade 10 students.
Prerequisites: Passing grade in World History
Learning expectations: 1, 2
Objectives: Students will examine the historical and intellectual origins of the United States during the Revolutionary and Constitutional eras. They will learn about the important political and economic factors that contributed to the outbreak of the Revolution as well as the consequences of the Revolution, including the writing and key ideas of the U.S. Constitution. Students will also study the basic framework of American Democracy and government, including topics such as popular sovereignty, federalism, separation of powers, and individual rights. Additional topics will include westward expansion, the establishment of political parties, and economic and social change. Finally, students will learn about the growth of sectional conflict and how this conflict led to the Civil War. The consequences of the war, including Reconstruction will complete the study.

DEMOCRACY IN ACTION 142
American Government

.50 Credit Level: 1
Prerequisite: This elective option is open only to grade 10 students
Learning Expectations: 1, 2
Objectives: This course provides a framework for understanding the purposes, principles, and practices of American government as established by the United States Constitution. Students will be expected to understand their rights and responsibilities in local, state, and national government. A focus upon primary source and fundamental documents will be highlighted.
Content: Students will compare and contrast ideas regarding the nature of government, politics, and civil life, and explain how these ideas have influenced contemporary political and legal systems. They will interpret founding-era documents and events associated with the core ideas of American political thought. The United States Constitution and the Massachusetts Constitution will be analyzed. Interactions between the United States and other nations will be viewed in the context of American foreign policy. Students will understand their role in the democratic process.

"A LIFE PORTRAIT" 143
The American Presidency

.50 Credit Level: 2
Prerequisite: This elective option is open only to grade 10 students
Learning Expectations: 1, 2
Objectives: Using high interest materials and a variety of instructional strategies, this course provides a comprehensive study into the history of the American presidency and the role that this prestigious office has played in shaping the nation's political, economic, and foreign policy.
Content: Students will study the various personalities who have had the prestigious honor of working in the Oval Office. From George Washington to George Bush, this course will look into the campaigns, the elections, the policies, the achievements, and the failures of those individuals who have influenced and shaped American political history. Students will analyze the various predetermined powers and limitations of the Office of the President set forth by the founding fathers, including an evaluation of the specific functions of the President according to the U.S. Constitution.

Grade 11

UNITED STATES HISTORY 2 127, 128

1.00 Credit Level: 1, 2
Prerequisites: World History and U .S. History I. The United States History Course is required for graduation. AP US History, or US History Research may be substituted and still fulfill the requirement.
Learning expectations: 1, 2
Objectives:

1. To understand the principles of democracy and the workings of government in the United States.
2. To understand the social and cultural forces that have shaped this country and its people.
3. To understand the role of the United States in the world political, economic, social and cultural spheres.
4. To develop research and critical thinking skills while studying the concepts of US history.
5. To understand the history of the country so that students will be better-informed citizens.

Contents: The United States History course will mainly cover the period from the Civil War to the present. Prior to the Civil War, the course will study the Revolution and the Constitution. In addition, it will look at the rise of industry and the causes of the Civil War with emphasis on slavery. After the Civil War, the course will cover the major aspects of the development of the country, lives of its people, and the drive to the present in all facets of life, politics, economics, and foreign affairs.
Term Assignments Required: Fully documented research papers and/or projects will be required. In addition, position papers and additional readings and research will be assigned.

UNITED STATES HISTORY RESEARCH 106

1.00 Credit Level: 1

Prerequisites: World History and U.S. History 1. This course fulfills the US History requirement.

Objectives:

1. To analyze the cause and effects of events in us history.
2. To understand the social, cultural, and intellectual forces which shaped this country.
3. To examine the structure of the government of the US, the Constitution, and the documents of the United States.
4. To develop good research and writing skills.
5. To understand the economic, political, and technological developments in the nation's history.

Contents: The US History Research course will cover the period from the Civil War to the present. As in the US History course, there will be a brief study of the pre-Civil War events that are significant for the major time period covered. Concentration in the 20th Century will stress the major political, social, economic forces as well as other events including the wars of America.

Term Assignments Required: The course, being a research course, will require a variety of research papers and presentation utilizing a wide variety of sources, methods, and media. In addition, oral discussions and presentations will be required.

ADVANCED PLACEMENT UNITED STATES HISTORY 115

1.00 Credit Level: AP

Prerequisites: The A.P. United States History class will be open to juniors taking the United States History requirement. It will also be open to seniors who wish to take the advanced course. Recommendations from United States History I, teachers will be part of the selection process.

Learning expectations: 1, 2

Objectives:

1. To provide an in-depth study of United States History.
2. To prepare students for college level work.
3. To prepare students for the College Board's AP Test.

Contents: The entire realm of United States History will be covered in this course. Special consideration will be given to areas such as the Revolution, the development of industry and culture, the Civil War and Reconstruction, the rise of the United States as a world power, and the modem era. Study of the ideas and trends of history will be emphasized, with special study of the rise of the presidency and the growing importance of the federal government.

Term Assignment Required: There will be two summer readings; one will be an overview of American history; the other of a more specific nature. During the course, there will be one term paper each semester. In addition, students will prepare position papers for presentation and discussion in class.

ADVANCED PLACEMENT UNITED STATES HISTORY/ COLLEGE 116

1.00 Credit Level: AP

Prerequisites: World History and United States History I. Open to juniors and seniors based on recommendation of United States History I teachers. This course fulfills the US History requirement.

Objectives:

1. To provide an in-depth study of United States History
2. To investigate the social, cultural, and intellectual aspects of the American people.
3. To analyze the economic, political, and diplomatic spectrum of the United States as it applies to the people and to the world.
4. To study and understand the forces that shape and run the governments in the United States.
5. To prepare students for college level work.
6. To prepare students for the national College Board AP Test.

Overview: The AP US History College course will allow students the additional option of earning College credits with a fee paid to the college. As the content and depth of this course parallel a college history course, this presents students with an excellent opportunity to both receive college credit and achieve high-ranking status for college acceptance by means of the national AP exam.

Contents: The course begins with a study of writing skills, as these are essential to success in the course and the national exam. The course will deal with all facets of studying history, from the analysis of documents, to the cooperative lessons and comparisons of today's events with historical perspective. The entire realm of US history will be covered in detail in this course. Among the areas of concentration are: the situations of the American Revolution and how its themes and concepts play throughout history; the rise of the industrial state and the effect of and affect on workers, immigrants, consumers, and politics. Important for the course is an analysis of cultural trends as they relate to their times. The role of the US in the world and the rise of the presidency are important concepts with which the course will deal.

Term Assignments Required: The students will be assigned summer readings and/or projects that may include a test upon returning to school in September. Students will be required to present position papers on aspects of US history. In addition, students will be required to do a fair amount of outside research for presentations and simulations in class.

PSYCHOLOGY 112

0.50 Credit Level: 1

Open to grades 10-12.

Learning expectations: 1, 2

Objectives:

1. To develop the student's awareness, self-understanding and an understanding of others.
2. To learn to recognize and cope with problems they face for the first time as they approach adulthood.
3. To use the theories of personality psychologists use as a guide in shaping their lives.
4. To help answer the question: Who am I?

Contents: An introduction to the scientific study of human behavior designed to assist the student in obtaining a better understanding of himself in a complex world. Areas to be

covered include, "What is Normal?", problems of the self, societal and emotional disorders such as suicide and alcoholism, forms of mental illness, theories of personality, and Freud and dreams.
Term Assignments Required: May include one research paper, one book report or one oral report.

SOCIOLOGY 113

0.50 Credit Level: 1
Prerequisites: Open to grades 10-12.
Learning expectations: 1, 2
Objectives:
1. To enable students to recognize cultural perspectives and points of view in themselves and others.
2. To encourage students to be critical thinkers.
3. To help students recognize the patterns in human behavior, to see "the forest through the trees."
4. To enable students to see their place in today's society and in tomorrow's world.

Contents: Topics covered include the sociological perspective, culture, social structure, socialization, stratification, social interaction, deviances, groups and organizations, gender, the family, education, the media, genocide, the future, race and ethnicity.
Classes consist of lectures and discussions. Topics covered are also examined as they appear in modern film.
Term Assignments Required: Homework, film critiques and participation. Notebooks are required. A final exam is also administered.

AMERICAN HISTORY THROUGH MUSIC L1 144

0.50 Credit Level: 1
Prerequisites: Open to grades 11-12.
Learning expectations: 1, 2
Objectives:
1. To enable students to analyze major American historical eras through music.
2. To encourage students to be critical thinkers.
3. To help students recognize patterns in history as a reflection of popular culture.
4. To enable students to interpret current history through popular music.

Contents: This course will examine the history of modern music from its roots in the cotton fields of the antebellum South, to the varied forms of today, and the role that music has played throughout American history. The course will show, decade by decade, how music is a social and cultural mirror for the period in which it was created. Classes consist of lecture, discussion, independent and group listening, and analysis.
Term Assignments Required: Homework, music critiques and participation are expected. A variety of projects, including research and presentation assignments, will be completed. Notebooks are required. A final exam will be administered.

AMERICAN HISTORY THROUGH MUSIC L2 145

0.50 Credit Level: 2
Prerequisites: Open to grades 11-12.
Learning expectations: 1, 2
Objectives:
1. To enable students to analyze major American historical eras through music.
2. To encourage students to be critical thinkers.
3. To help students recognize patterns in history as a reflection of popular culture.
4. To enable students to interpret current history through popular music.

Contents: This course will examine the history of modern music from its roots in the cotton fields of the antebellum South, to the varied forms of today, and the role that music has played throughout American history. The course will show, decade by decade, how music is a social and cultural mirror for the period in which it was created. Classes consist of lecture, discussion, independent and group listening, and analysis.
Term Assignments Required: Homework, music critiques and participation are expected. A variety of projects, including research and presentation assignments, will be completed. Notebooks are required. A final exam will be administered.

CRADLES OF CIVILIZATION L2 146

0.50 Credit Level: 2
Prerequisites: Open to grades 11-12.
Learning expectations: 1, 2
Objectives:
1. To enable students to construct and interpret timelines of events and civilizations studied.
2. To provide students the skills necessary to distinguish between primary and secondary sources and describe how each kind of source is used in interpreting history.
3. To help students recognize and identify multiple causes and effects when explaining historical events.
4. To enable students to explain the importance of invention and agriculture in the development of civilization.

Contents: Students will study the origins of the River Valley Civilizations and those societies that flourished in and around the Mediterranean area. They will examine the religions, governments, trade patterns, philosophies, and art forms of these civilizations. The course will culminate in the understanding of the powerful ideas that arose in the ancient world and profoundly shaped the course of western civilization. Ultimately, students will grasp the successes and failures of these early societies, and interpret the modern world in light of these forces. Classes will consist of lecture, discussion, traditional and project-based assessment.
Term Assignments Required: Homework and participation are expected. A variety of projects, including research and presentation assignments, will be completed. Notebooks are required. A final exam will be administered.

"WE THE PEOPLE"– THE CITIZEN AND THE CONSTITUTION 147

Credit .50 Level: 1

Prerequisites: Open to grades 11 -12
Learning Expectation: 1, 2
Objectives:
Students will explore the following unit topics

1. What are the philosophical and historical foundations of the American political system?
2. How did the Framers create the Constitution?
3. How has the Constitution been changed to further the ideals contained in the Declaration of Independence?
4. How have the values and principles embodied in the Constitution shaped American institutions and practices?
5. What rights does the Bill of Rights protect?
6. What challenges might face American Constitutional Democracy in the coming century?

Contents: This course provides a framework for understanding the purposes, principles, and practices of American government as established by the United States Constitution. Students are expected to understand their rights and responsibilities as citizens and how to exercise these rights and responsibilities in local, state, and national government. Through interactive study, the course will provide students with an understanding of how the Constitution came into existence, why it took the form it did, and how it has functioned for the past two hundred years. A focus upon primary sources, fundamental documents and current events will be highlighted.

"WE THE PEOPLE"–
THE CITIZEN AND THE CONSTITUTION 148
Credit .50 Level: 2

Prerequisites: Open to grades 11 -12
Learning Expectation: 1, 2
Objectives:
Students will explore the following unit topics

1. What are the philosophical and historical foundations of the American political system?
2. How did the Framers create the Constitution?
3. How has the Constitution been changed to further the ideals contained in the Declaration of Independence?
4. How have the values and principles embodied in the Constitution shaped American institutions and practices?
5. What rights does the Bill of Rights protect?
6. What challenges might face American Constitutional Democracy in the coming century?

Contents: This course provides a framework for understanding the purposes, principles, and practices of American government as established by the United States Constitution. Students are expected to understand their rights and responsibilities as citizens and how to exercise these rights and responsibilities in local, state, and national government. Through interactive study, the course will provide students with an understanding of how the Constitution came into existence, why it took the form it did, and how it has functioned for the past two hundred years. A focus upon primary sources, fundamental documents and current events will be highlighted.

• BUSINESS EDUCATION •

ACCOUNTING 1, L1 501

.50 Credit Level: 1
Grades: 10, 11, 12
Prerequisites: Good figure aptitude
Learning expectations: 7
Objectives:

1. To present the introductory fundamentals of accounting as developed for personal and business purposes.
2. To explore the scope of accounting and job opportunities in this field.
3. To teach the basic principles of keeping records for a small business.
4. To solve problems and keep accurate records.
5. To introduce the student to automated data processing.
6. To acquire a foundation for further study in accounting.
7. To acquire the ability to analyze financial statements and process decisions.
8. To broaden skills for more advanced level transactions.

Contents:

1. The accounting cycle including journal entries and ledger postings.
2. Transactions containing petty cash sales, purchases, and payroll and its effects on the business operation.
3. Federal and state tax requirements and reporting and payroll and its effect on personal and business returns.
4. Introduction to automated and computer data processing.
5. Completion of both manual and automated practice set projects.
6. Spreadsheet applications.

Term Assignments Required: Projects are assigned and required throughout the course.

1. The accounting cycle including journal entries and ledger postings.
2. Transactions containing petty cash sales, purchases, and payroll and its effects on the business operation.
3. Federal and state tax requirements and reporting and payroll and its effect on personal and business returns.
4. Introduction to automated and computer data processing.

Term Assignments Required: Projects are assigned and required throughout the course.

ACCOUNTING 2 505

50 Credit Level: 1
Grades: 11, 12
Prerequisites: Passing grade in Accounting 1.
Learning Expectations: 7

Objective: This course will take students through the steps of the accounting cycle for a corporation.

Contents: Review of basic accounting theory, Merchandising vs. services and the accounting cycle, Corporate accounting,

Financial Statements, Accounts Receivables and Notes Receivables, Intangible Assets, Current Liabilities and Current Assets, Generally Accepted Accounting Principles, Depreciation and Amortization, Inventory Methods, Sales and Purchasing transitions, Long-term liabilities, Closing entries, Ratios, and Automated accounting

Term Assignments Required: Projects are assigned and required throughout the course.

ACCOUNTING 3 506

0.50 Credit Level: 1
Grades: 12
Prerequisites: Successful completion of Accounting I and II
Learning expectations: 7
Objectives:

1. To understand both basic and advanced accounting concepts and principles that provide the theoretical basis for all accounting systems.
2. To understand workflow and the necessity for financial controls in a modern business.
3. To analyze accounting data for management's use.
4. To use accounting data in making management decisions and developing the sound reasoning ability needed to formulate business decisions at various levels.
5. To expand knowledge of business data processing procedures and practices, and relate this knowledge to realistic business applications.
6. To understand practical applications using electronic spreadsheets and databases.
7. To understand economic events in the business climate.

Contents:

1. Review of automated accounting for general ledger set-up.
2. Account payable transactions and reports.
3. Accounts receivable transactions and reports.
4. Advanced accounts payable and receivable.
5. Payroll transactions and reports.
6. Management information systems.
7. Managerial accounting.
8. Cost accounting.
9. Financial accounting.
10. Economics and marketing concepts.

Term Assignments Required: Automated simulation projects.

BUSINESS DYNAMICS L2 520

0.50 Credit Level: 2
Grades: 9, 10
Learning expectations: 7
Objectives:

1. To introduce the different career options in business.
2. To learn how to compete in the world labor market.
3. To learn about different advertising strategies.
4. To understand the importance of marketing management.
5. To learn about different management styles and motivating employees.
6. To understand global business concepts, problems, and opportunities.
7. To introduce the world of banking and finance to students.

Contents: This course will introduce students to the many different areas of study that make up the business world. Foundations in advertising, marketing, finance, banking, management, human resources, economics, and International Business will be the focus. Different career alternatives within the business world will be explored as well. Job-hunting skills, resume writing, and interviewing skills will also be addressed.

BUSINESS DYNAMICS L1 521A

0.50 Credit Level: 1
Grades: 9, 10
Learning expectations: 7
Objectives:

8. To introduce the different career options in business.
9. To learn how to compete in the world labor market.
10. To learn about different advertising strategies.
11. To understand the importance of marketing management.
12. To learn about different management styles and motivating employees.
13. To understand global business concepts, problems, and opportunities.
14. To introduce the world of banking and finance to students.

Contents: This course will introduce students to the many different areas of study that make up the business world. Foundations in advertising, marketing, finance, banking, management, human resources, economics, and International Business will be the focus. Different career alternatives within the business world will be explored as well. Job-hunting skills, resume writing, and interviewing skills will also be addressed.

BUSINESS LAW 513

0.50 Credit Level: 1
Grades: 11, 12
Learning expectations: 7
Objectives:

1. To provide an understanding of our legal rights, privileges, and responsibilities.
2. To give the student a knowledge of the origin and development of our legal system.
3. To develop the ability to recognize legal problems in everyday living situations.
4. To provide an understanding of one's rights and obligations in common business transactions.
5. To develop an understanding and use of common legal words, terms and phrases.

Contents:

1. Understanding the Law: Law and Society, Citizen, Minor Consumers.
2. Enforcing the Law: Crimes, Torts, Law Enforcement and the Courts.
3. Making Contracts: How Contracts are Made, Form of Agreement, Void and Voidable Agreements, Legal Agreements, Consideration, and Capacity.

COMPUTER APPLICATIONS 539

0.50 Credit Level: None
Grades: 9, 10
Course Description: A one-semester course to provide the beginning student with a working knowledge of Microsoft Office computer applications.
Learning expectations: 5
Objectives: The purpose of this course is to help students learn:

1. To acquire skill in word processing using Word 2003 by formatting letters, memos, one page reports, and centering problems.
2. To acquire skill in spreadsheet development using Excel 2003 by entering and editing data, using formulas and functions, and printing spreadsheets.
3. To acquire skill in database management using Access 2003 by structuring a database, entering data into the database, sorting a database, querying a database, formatting and printing a database.
4. To acquire skill in using PowerPoint 2003 a presentation graphics component, combining text, clip art, drawing objects, charts, tables and other objects to create visual slide presentations, audience handouts, and speaker notes. Students will develop and improve their computer skills and be confident using these tools for personal, school, career, and/or business projects.

Contents: Word 2003: Basics of Word, Create, Save, and Print Documents, Open and Edit Documents, Manage Files, Text Alignment and Enhancements, and Additional Formatting and Editing. Excel 2003: Introduction of Excel, Exploring the Worksheet, Worksheet Basics, Files, Formulas and Formatting, Functions, Formats, Features, and Print Options, Working with Workbooks, Worksheets, and Templates. Access 2003: Database Basics Creating a Database, Edit and Printing a Database, Searching and Sorting a Database, Queries, and Reports. PowerPoint 2003: Create, Save, and Print a Presentation, and Enhance Slides: Work with Text and Objects.
Requirements: A student must master the course content as measured by examination, performance, production, and other reasonable criteria including participation.

CAREER & CONSUMER TOPICS 532A

0.50 Credit Level: 2
Grades: 12
Prerequisites: None
Learning expectations: 7
Objectives: Consumer Topics is a one-semester course. The course has been developed to increase the financial literacy and money management skills of the student. By providing information and tools it enables students to improve their ability to make educated decisions when managing their personal finances in the areas of goal setting, budgeting, savings, and the costs relating to credit. Course curriculum features include legal issues relating to consumer rights and responsibilities, personal ethics, attitudes and critical thinking skills.
Contents: Budgeting, Payroll Taxes and Social Security Services, Consumer Credit, Renting an Apartment, Buying vs. Leasing an automobile, Insurance, and Banking Services.
Term Assignments Required: Projects are assigned and required throughout the course.

ECONOMICS 541

0.50 Credit Level: 1
Grades: 11, 12
Learning expectations: 3, 7
Objectives: This course is designed to present the fundamentals of economics for personal, business and academic purposes. Economics is not a set of facts to be memorized, but rather a set of analytical techniques that can be used to solve problems. Accordingly, hands on projects will provide you with numerous opportunities to apply what you are learning. Upon completion of this course, you will be better prepared to succeed in college and/or the work force, and you will have a greater understanding of the problems that our nation currently faces.
Contents: Economics Defined and Careers in Economics, Different Types of Economic Systems, Macroeconomics-Studying the Health of Our Nation's Economy (The Big Picture), Microeconomics - Focuses on Businesses and Individuals (The Smaller Picture), and Trends in Global Interdependence.
Term Assignments Required: Students are expected to complete individual and group research projects and develop their own individual Economics Portfolios.

ENTREPRENEURSHIP 547

0.50 Credit Level: 2
Grades: 11, 12
Learning expectations: 5, 7
Objectives:

1. To discuss the skills and qualities necessary to be an entrepreneur.
2. To learn how to prepare a successful business plan.
3. To learn practical decision-making skills for a small business environment.
4. To discuss different types of business ownership.
5. To discuss the legal requirements involved in starting a business.
6. To learn the different methods of financing a business.
7. To discuss social and ethical responsibilities in owning a business.

Contents: Entrepreneurs are people who organize and start their own businesses. This course will study how entrepreneurs have played a major role in shaping the history of America, discuss what it takes to be an entrepreneur, and highlight areas of entrepreneurial opportunity in various career fields. Students will research a particular type of business and prepare a business plan.

FINANCIAL LITERACY 552

0.25 Credit Level: 1 and 2
Prerequisite: **Students in grade 11**
Learning Expectations:
7) The Shepherd Hill student demonstrates critical thinking and problem solving skills.

Objectives: This course is designed to present the fundamentals of financial literacy. With the increasing numbers of Americans in financial trouble coupled with the current economic troubles, the National Endowment for Financial Education has created the NEFE High School "Financial Planning Program", a free curriculum available to United States high schools. Students will gain an understanding of not only what it takes to be financially solvent as a young adult soon to be living independently, but how to make decisions that are financially rewarding. This course is strongly recommended for juniors and will meet every other day for a semester.
Contents: The importance of financial planning, personal financial responsibility, financing an education, your career and financial future, budgeting and tools to help manage cash flow, savings and investments (stocks, bonds, mutual funds), credit scores and reports, interest rates, cost of debt, getting out of excessive debt, future insurance needs (health, property, life, disability, liability).

INVESTMENTS 548

0.50 Credit Level 1
Grades: 12
Learning expectations: 5, 7
Objectives:
1. To present introductory fundamentals of investing.
2. To read and understand financial quotes.
3. To understand the factors that can affect investment values.
4. To analyze the financial condition of companies and their investment potential.
5. To utilize technology for research and financial management.
6. To study the history of the stock market and the lessons that can be applied.
7. To discuss current events in the investment world.
8. To develop individual investment plans.

Content:
Learning how to invest can be like learning a new language. To understand the marketplace and knowledgeably pursue investment goals, it's important to start with the basic terms and concepts. With this foundation in place, students will learn the skills necessary to make investment decisions and manage a portfolio of stocks, bonds, and funds using Excel.

This course introduces the major investment vehicles - cash and cash equivalents, bonds and stocks, mutual funds, certificate of deposits - and some of the main concepts, such as risk and reward, diversification, and market volatility.

PERSONAL KEYBOARDING 503

0.50 Credit Level: None
Grades: 9, 10
Learning expectations: 5
Course Description: A one-semester course designed to teach students the touch method of typing on computers.
Objectives and Contents:
1. Students will be able to key at a reasonable rate of speed using the touch method of keyboarding. Keyboarding will include letters, numbers, and symbols.
2. The development of an ability to follow oral and written directions.
3. Students will demonstrate editing skills.
4. Students will be able to demonstrate proofreading skills.
5. Students will demonstrate formatting skills, including paragraphs, simple reports, letters, memorandums, vertical and horizontal centering.

Timed Writing Requirements: A minimum of 8 timings ranging from 16 to 30 (or more) gross words a minute for an interval of 3 minutes with 95% accuracy.

PRINCIPLES OF MARKETING 543

.50 Credit Level: 1
Grades: 11, 12
Learning Expectations: 7

Objectives: Students are exposed to the four P's of Marketing: Price, Placement, Product and Promotion.
Contents: Cross-Functional Cases, Internet Activities, Analysis of Current Marketing Strategies, Marketing Careers, Global Marketing, Business Ethics, Analyzing print ads, Designing advertising campaigns, Company case studies, Discussion and Writing, Packaging considerations, Promotional strategies, Pricing techniques, Target Markets, Marketing Research, SWOT analysis, Branding, Product Life Cycle.

Term Assignments Required: Projects are assigned and required throughout the course.

• COMPUTER PROGRAMMING •

INTRODUCTION TO C++ PROGRAMMING 228

0.50 Credit Level: 1
Prerequisite: B- or better average in Algebra 1, L1
Learning expectations: 5, 7
Objectives:
1. To produce within a student a firm understanding of the components that make up a computer system and what each component contributes to the overall operation of such a system.
2. To teach students how to operate and program a computer.
3. To expose students to what computers can and cannot do.
4. To introduce students to a unit of programming on the graphing calculator.

Contents: Students are required to solve problems through the development of an algorithm and the restructuring of that algorithm using the computer language C++.

PROGRAMMING IN JAVA 233

0.50 Credit Level: 1
Prerequisites: Two years of high school level 1 math and a grade of C or better in Introduction to C++ Programming or prior programming experience approved by JAVA instructor.
Learning expectations: 5, 7
Objective:

1. To teach students how to program in an object oriented language.
2. To teach students how to develop procedures and functions through the use of algorithms.
3. To enforce programming techniques including documentation.
4. To develop an understanding of technology in terms of goals, inputs, process, and output.

Content: Students are required to solve problems through the development of an algorithm and the restructuring of that algorithm using the computer language JAVA.

•FAMILY & CONSUMER SCIENCE•

INTRODUCTORY FOODS / NUTRITION / WELLNESS 606

0.50 Credit Level: None
Prerequisite: Open to grades 11-12
Learning expectations: 6
Objectives:

1. To understand the basic principles of nutrition.
2. To understand the link between diet and disease.
3. To identify functions and sources of major nutrients
4. To demonstrate basic food preparation skills and understand the effects on the nutritional value of food.
5. To understand the "Food Guide Pyramid" and how it relates to the "Dietary Guidelines for Americans".
6. To understand the information on nutrition labels.
7. To identify common food borne illnesses.
8. To understand the benefits of personal wellness with healthy decision making skills.

Contents: This course provides students with a basic understanding of good nutrition while encouraging them to make healthy decisions concerning their diets and personal wellness. Students will study the link between diet and disease and will learn how to modify their food intake to help them achieve a healthier diet. An understanding of the major nutrients will be stressed. Issues related to diet -- such as weight management, food safety and sanitation, nutrition labeling and nutrition throughout the lifespan will be included. Food labs will give students the opportunity to learn basic skills and practice healthier cooking techniques. Current topics will be discussed to develop healthy decision making skills that can be used through out their life.

Term Assignments Required: Textbook and Written Assignments, Online Food Journal, Attendance, Food Lab Assignments, Oral Presentations, and Class Participation

ADVANCED FOODS / NUTRITION / WELLNESS 607

0.50 Credit Level: None
Prerequisite: Must have completed Introductory Foods and Nutrition with a passing grade. Open to grades to 11-12
Learning expectations: 6
Objectives:

1. To understand basic nutrition needs throughout life stages.
2. To identify how social and cultural backgrounds affect food and nutrition choices.
3. To apply basic cooking skills.
4. To develop and practice wise consumer and resource management skills.
5. To relate scientific principles of food to the individual diet.
6. To learn about eating disorders and the links between diet/disease.
7. To understand the importance of food safety and sanitation practices.
8. To analyze different dietary plans and their long term outcomes.
9. To explore various career options.
10. To understand the benefits of self-advocacy in regards to personal wellness.

Contents: This course empathizes a basic understanding of good nutrition. Students will understand the scientific principle of food and the relationship to their diets. Dietary needs throughout the life stages will be explored. Safe eating practices and weight reductions programs will be studied. Food labs will give students the opportunity to expand their culinary skills and practice safe food handling. Current event topics relevant to adolescence will be discussed to promote healthy decision making skills. Through projects, demonstrations, labs, and lectures, the student will be exposed to American foods invented in the 20th century, regional American cooking and International Foods.

Term Assignments: Textbook and written assignments, Attendance, Online Food Journal, Food Lab assignments, Oral presentations, and class participation

• HEALTH •

HEALTH 9 918

0.25 Credit Grade Level: Grade 9
Learning expectations: 6
Objectives:

1. To increase student health knowledge.
2. To develop skills in order to attain healthier lifestyles.

Contents: This course will help to develop skills necessary to assist the adolescent in making healthy decisions. Subject matter will follow the teenage health and teaching modules. Topics included are: critical thinking, healthy relationships; mental and emotional health; and tobacco, alcohol and other drug use.
Term Assignments: Class and home assignments, quizzes, research paper.

HEALTH 10 920

0.25 Credit Grade Level: Grade 10
Learning expectations: 6
Objectives:
1. To allow students to be certified in CPR and First Aid.
2. To prepare students to react in emergency situations.
3. To equip students with skills to make healthy decisions.

Contents: This course includes a twelve-lesson CPR unit that covers procedures for rescue breathing, CPR, and giving aid to choking victims. These skills will be taught with regard to adult, child, and infant victims. A twelve lesson First Aid Unit will include basic procedures for care of injuries such as scrapes, cuts, burns, breaks, and sprains. Mini lectures on personal and home safety and lifestyle choices will be included in both CPR and First Aid Units. A senior high D.A.R.E. unit is included. Lessons will focus on drugs, that are becoming more prevalent within the school district. A lesson teaching the proper procedures for testicular self-exams and breast self-exams is also included. The course is taught by a health instructor, and a D.A.R.E. officer.
Term Assignments: Class and home assignments, quizzes, practical tests

PERSONALIZED WELLNESS MANAGEMENT 939

0.50 Credit Grade Level: Grades 11-12
Can be counted in lieu of 1 year (0.25 credit) of physical education
Learning expectations: 6
Objectives:
1. To link health, physical fitness, and nutritional health to weight management and disease prevention.

Contents: This course is comprised of three components: Emotional Wellness, Physical Fitness, and Nutritional Health. The course will meet every day for ½ of the school year. Course instruction will be interdisciplinary involving the Health and Physical Education Departments
Term Assignments: Class and home assignments, quizzes, research paper

• PHYSICAL EDUCATION •

PHYSICAL EDUCATION 910

0.25 Credit
Prerequisites: Open to grades 9, 10
Learning expectations: 6
Objectives:
1. To learn skills and behaviors that will contribute to a healthful lifestyle.
2. To establish an appreciation for the value of life long physical activity.

Contents: A program of activities with emphasis on cooperative games, individual/team sports, and personal fitness. The sequence of experiences is deigned to fulfill the physical growth, social development, and behavioral needs of each student. The class meets every other day for the full year.

SPORT & RECREATION 911

0.25 Credit
Prerequisites: Open to grades 10, 11, 12
Learning expectations: 6
Objectives:
1. To apply skills and abilities efficiently.
2. To maintain an appropriate level of physical fitness
3. To enhance social interactions
4. To create an understanding of one's personal wellness

Contents: This course offers a wide range of activities for the student to participate in a variety of games, fitness activities, and sports. The class meets every other day for a full year.

SPORT & RECREATION PLUS 917

0.25 Credit
Prerequisites: Open to grades 10-11-12
Learning expectations: 6
Objectives:
1. To apply skills and abilities efficiently
2. To maintain an appropriate level of physical fitness
3. To enhance social interaction
4. To create an understanding of one's personal wellness

Contents: This course offers a wide range of activities that challenge the student's desire to willingly participate at a greater intensity level in games, fitness activities, and sports. The class meets every other day for a full year.

BODY WORKSHOP 919

0.25 Credit
Prerequisites: Grade 9, 10, 11 or 12 with teacher referral
Learning expectations: 6
Objectives:
1. To learn skills that will contribute to a healthful lifestyle.
2. To meet the school district's objectives of a physically educated person.

Contents: This is a comprehensive program designed to empower the student with the knowledge, skills, and

experiences they need to make positive health choices. Individual will learn techniques that will allow them to control their body weight, improve their self-image and self-esteem. The class meets every other day for a full year.

FITNESS/WELLNESS 909

0.25 Credit
Prerequisites: Grade 9, 10, 11 or 12 with teacher referral
Learning expectations: 6
Objectives:
1. To learn skills that will contribute to a healthful lifestyle.
2. To meet the school district's objectives of a physically educated person.

Contents: This is designed to meet the individual needs for those students who, for medical, physical, or emotional reasons cannot participate in the regular Physical Education offerings. The class will meet every other day for the full year.

FITNESS FOR LIFE 931

0.25 Credit
Grades: 10, 11, 12
Prerequisite: A - average in previous year of Physical Education
Learning Expectations: 6

Objectives of Course: The course is designed for students to assess their current fitness level and set goals to meet their needs. A personal fitness program will be developed to increase knowledge and understanding of health-related fitness (flexibility, muscular strength, body composition and cardiovascular endurance). The course is designed to establish and promote a life long wellness program.
Contents: The student will experience enjoyment and relief of stress through a variety of activities. The student will: Determine personal fitness level, Create a fitness program to meet goals, Learn the value of good nutrition, Learn the role of exercise and aging, Participate in a wide range of activities—aerobics/power walking/running interval work/hiking/flexibility exercises/team games/fitness center machines (elliptical, treadmill, bikes, steppers), weight training/orienteering and tennis

PROJECT ADVENTURE 626

0.25 Credit
Prerequisites:
1. Grade 10, 11 or 12
2. Recommendation from instructor

Learning expectations: 6
Objectives:
1. To build mutual group support through trust and communication.
2. To develop cooperation and personal confidence in a safe environment.

To create an enjoyable experience and appreciation of our natural surroundings.

Contents: Activities explored create student interaction, a challenge by choice, and a trip into the unknown. Also, included are cooperative games, trust, initiatives, and rope course work.

SPORT SAFETY, FIRST AID AND CPR 932

0.25 Credit Non Leveled
(meets every other day for 1 semester – may not fulfill PE graduation requirement)
Grades Level: 9, 10, 11, 12
Prerequisite: None
Learning Expectation: 6
Objectives:
1. To attain First Aid certification through the American Red Cross
2. To become CPR certified through the American Red Cross
3. To learn about and understand sport safety, injury protection, and treatment
4. To acquire skills for job or coaching positions

Contents: Standard First Aid, Professional and Community CPR, Sport Safety, Injury prevention and Treatment, Applications and Use for High School Students

SPORT IN SOCIETY 933

0.25 Credit Non Leveled
(meets every other day for 1 semester – may not fulfill PE graduation requirement)
Grades: 10, 11, 12
Prerequisite: None
Learning Expectations: 6

Objectives: To analyze the role that sport plays among societies around the country and world.

Contents: This course involves the sociological aspects of sport. Topics include: Types of Sport, Rules of Sport, Sport and Relationship to Violence in Society, Fans and Expected/Unexpected Behavior, Parental Involvement and Pressures, Positive and Negative Athlete Role Models, Sport Impact—Local, State, National, Local Pride vs. National Pride, High Sport Standards in a Variety of Regions, The Olympics—Past, Present, Future

UNIQUE PURSUITS 921

0.25 Credit
Prerequisites:
1. Grade 11 or 12
2. Grade of B or higher in Physical Education in grades 9 & 10
3. Recommendation from instructor

Learning expectations: 6
Objectives:
1. To explore areas that are non-traditional in Physical Education

2. To experience the enjoyment/satisfaction from self0selected physical activity
3. To understand the risk factors and safety issues in these unique pursuits

Contents: Activities will be based on dynamic learning and uncertainty in an atmosphere of fun. Roller blade, mountain biking, cross-country skiing, snowboarding, and orienteering are possible pursuits. The class meets every day for one semester.

• MUSIC •

BAND 801

1.00 Credit Level: None
Prerequisites: Students should have some experience playing a brass, percussion or woodwind instrument; or twirling a flag or rifle. Open to grades 9-12.
Learning expectations: 8
Objectives:

1. Students will perform marching and concert music in a format that lends itself to both the individual and the ensemble.
2. Students will be exposed to band music from a variety of styles, periods, nationalities, and composers.
3. Students will learn practice and rehearsal skills that will help prepare them for the future.
4. Students will develop and refine playing techniques on their individual instruments.
5. Students will learn and develop sight-reading and score reading skills.

Contents: The band is a very active group. Parades, District/State Festivals, civic performances and all home football games are part of their activities.
Term Assignments Required: Students are required to attend all scheduled rehearsals and performances.

CHAMBER SINGERS 814

.50 Credit Level: 1
Prerequisites: One year high school choral experience. Open to grades 10-12 by audition and teacher recommendation only.
Learning expectations: 8
Chamber Singers is a 4 part mixed (SATB) choir dedicated to the preparation of a cappella music suited to the small ensemble.
Objectives:

1. Student will be exposed to a cappella choral music from a variety of styles, periods, nationalities and composers.
2. Students will refine solo and ensemble singing skills to meet a high standard of performance.
3. Students will perform music publicly, either in a group or individually.
4. Students will refine vocal technique; breath control, vowel formation articulation, diction, phasing, musicality.
5. Students will develop music reading and sight-singing skills.

Contents: A cappella choral music of all styles, periods, nationalities, and cultures with an emphasis on madrigal singing. Choral warm-ups and technical exercises; Score reading; "The Easy Rhythm Sight-Singing Series", "The Renaissance Sight-Singing Series"
Term Assignments Required: Students must attend all scheduled rehearsals and performances. Considerable preparation outside of class is expected. Students must be able to prepare score parts independently. Sight singing will be assigned on a regular basis.

CHORUS 802

0.50 Credit Level: None
Prerequisites: None. Open to grades 9-12.
Learning expectations: 8
Objectives:

1. Student will be exposed to choral music from a variety of styles, periods, nationalities, and composers.
2. Students will learn ensemble skills needed to sing successfully in a choral setting.
3. Students will perform music publicly, either in a group or individually.
4. Students will learn fundamental vocal technique.
5. Students will develop music reading and sight-singing skills.

Contents: Choral music of all styles, periods, nationalities, and cultures; Choral warm-ups and technical exercises; Score reading.
Term Assignments Required: Students must attend all scheduled rehearsals and performances. Music Lab attendance – 20 minutes per week.

GUITAR ENSEMBLE 811

0.50 Credit Level: None
Prerequisites: Students must have access to a guitar for practice and, in some cases, class use. Open to grades 9-12.
Learning expectations: 4, 8
Objectives:

1. This course is designed to provide basic skills for beginning guitar students.
2. Students will learn basic chords and strum patterns.
3. Students will develop music reading and study skills necessary for mastery of the instrument.
4. Students will explore a variety of solo and ensemble literature.
5. To encourage the habit of constant self-evaluation of one's playing.

Contents: Music in a variety of styles; chords; scales; riffs and patterns; technical exercises.
Term Assignments Required: Perform a minimum of five pieces written for solo and/or ensemble.

HUMANITIES 114

1.00 Credit Level: 1
Open to grades 11-12.
Learning expectations: 8

Objectives:

1. To provide an enrichment course which broadens the student's awareness of his/her cultural heritage.
2. The student will be able to recognize general features of important movements in art and will be able to date a work of art, whether painting, sculpture, architecture, or performance (music, dance and theater), reasonably accurately from stylistic features.
3. The student will have a general idea of the socio-historical context from which as piece of art springs and can bring that knowledge to bear on questions of generation, meaning and style.
4. The student will establish personal connections to and comprehension of art and performance from the whole span of human history.
5. The student will develop intellectual grounding in 19th and 20th century conceptual frameworks, which inform modern analyses of art and literature.

Contents: This course is designed to give the serious student a broad perspective of humanity and history through the study of and exposure to our greatest achievements in the visual arts, architecture, theater, dance and music. It seeks to illuminate today's world, and modern art, through an understanding of the past out of which it has developed.

Term Assignments Required: Visual and oral presentations, journal, research project.

INSTRUMENTAL WORKSHOP 813

0.50 Credit Level: None

Prerequisites: Students should have some experience playing a brass, percussion, or woodwind instrument. Students should own their own instrument. Open to grades 9-12.

Learning expectations: 8

Objectives:

1. Students will develop precision and fine control of articulation and technical execution on their instrument.
2. Students will develop an awareness of the total sound color of the ensemble.
3. To encourage the habit of constant self-evaluation of one's playing.
4. Students will develop music, reading, and study skills necessary to gain self-confidence in performing.

Contents: Ensemble music of all styles, periods, nationalities and cultures.

Term Assignments Required: Perform a minimum of five pieces written for solo and/or ensemble.

INTRODUCTION TO MUSIC TECHNOLOGY 820

0.50 Credit Level: None

Prerequisites: None. Open to grades 9-12.

Learning expectations: 5, 8

Objectives:

1. Music technology will provide an overview and hands-on exploration of topics relating to the integration of music and technology.
2. Students will learn MIDI applications including the use of several sound controllers for sequencing and editing.
3. Students will create and experiment with music and sound using sequencing software.
4. Students will learn the basics of notation necessary for creating and composing. No prior music reading skills are required.

Contents: Use and application of theory, sequencing and notation software; notation; rhythm reading; fundamental keyboard skills; compositional techniques; basic musical forms.

Term Assignments Required: Final composition both recorded and notated.

PIANO KEYBOARD LAB 1 830

0.50 Credit Level: None

Prerequisites: None. Open to grades 9-12.

Learning expectations: 8

Objectives: Keyboard Lab I is an introductory course.

1. Keyboard 1 will provide beginning students with the fundamentals needed to play the piano keyboard and interpret a piano score.
2. Students will learn to read notes and rhythms.
3. Students will develop independent hand and finger coordination leading to advanced keyboard studies.

Contents: Treble and bass clef; notation; rhythms; technical exercises; music of a variety of styles presented progressively.

Term Assignments Required: Quarterly assessment of progress – students must achieve specific standards each quarter.

PIANO KEYBOARD LAB 2 832

0.50 Credit Level: None

Prerequisites: Piano Keyboard Lab I or comparable piano skills (left hand/right hand independence). Open to grades 10-12.

Learning expectations: 8

Objectives: Keyboard Lab II is designed to build on the fundamental skills acquired in Keyboard Lab I.

1. Students will learn more advanced rhythms and melodies.
2. Students will play melodies and accompaniments with independence.
3. Students will develop precision and fine control of articulation and technical execution on their instrument.
4. Students will play by ear and harmonize simple melodies.
5. Students will expand their knowledge of piano repertoire to include compositions by major classical composers.

Contents: Solo and ensemble music of differing styles, periods, nationalities, and cultures; Warm-ups and technical exercises; Improvisation.

Term Assignments Required: Quarterly assessment of progress – students must achieve specific standards each quarter.

SELECT CHORUS 824

.50 Credit Level: 1

Prerequisites: One year in high school choral experience. Open to grades 10-12 by audition and teacher recommendation only.

Learning expectations: 8

Objectives:

1. Student will be exposed to a cappella choral music from a variety of styles, periods, nationalities, and composers.
2. Students will refine solo and ensemble singing skills to meet a high standard of performance.
3. Students will perform music publicly, either in a group or individually.
4. Students will refine vocal technique, breath control, vowel formation, articulation, diction, phrasing and musicality.
5. Students will develop music reading and sight-singing proficiency.

Contents: A cappella choral music of all styles, periods, nationalities, and cultures with an emphasis on madrigal singing; Choral warm-ups and technical exercises; Score reading; "Jenson Sight-Singing Series."

Term Assignments Required: Students must attend all scheduled rehearsals and performances. Considerable preparation outside of class is expected. Students must be able to prepare score/parts independently. Sight singing will be assigned on a regular basis.

THEORY AND HARMONY 803

1.00 Credit Level: 1

Prerequisites: None, but at least one year of experience with an instrument or in a performing ensemble is helpful. Open to grades 10-12.

Learning expectations: 8

Objectives:

6. To provide an area of study for students interested in music beyond the performance level.
7. Students will develop skills in the theoretical aspects of music.
8. To provide a sound background for the student seriously considering further study in music.
9. Students will understand the function of major and minor tonality in Western music.
10. Students will understand the symbols and terminology necessary for analysis of a written score.

Contents: Study of scales, key signatures, chords, ear training, sight-singing, part writing, analysis.

Term Assignments Required: Final project - Harmonic analysis of an assigned work.

VOCAL ENSEMBLE 808

0.50 Credit Level: None

Prerequisites: None. However, at least one year of choral experience is recommended. Open to grades 9-12.

Learning expectations: 8

Objectives:

1. Students will learn fundamental vocal techniques to develop breath control, good intonation and flexibility.
2. Students will explore a variety of vocal literature for solo and small ensemble.
3. Students will expand their individual abilities with solo and class ensemble work.
4. Students will develop their music reading and sight singing skills.

Contents: Music of all styles, periods, nationalities, and cultures; Warm-ups and technical exercises; Sight-singing and rhythm reading.

Term Assignments Required: Perform a minimum of five pieces written for solo and/or ensemble.

• TECHNOLOGY EDUCATION •

ARCHITECTURAL DRAWING 617

0.50 Credit Level: None

Grades: 11, 12

Prerequisites: CAD II

Learning expectations: 5, 7

Objectives:

1. Students will gain the knowledge of material and frame construction.
2. Students will know the design consideration in house construction.
3. Students will gain knowledge to make decisions about future home design.

Contents: Architectural Drawing explores the principles of architectural design and details of frame construction. The course consists of planning, designing, and drafting a structure of their choice. The drawings include: floor plan, elevations, longitudinal and side sections, detail sheet, foundation plan, door and window schedule, plot plans and a one point perspective of any room. The final exam is a two-point perspective of the house designed by each student.

Term Assignments Required: Set of the above listed plans.

CAD 1 615

0.50 Credit Level: None

Grades: 10, 11, 12

Prerequisites: None but basic mechanical drawing skills useful.

Learning expectations: 5, 7

Objectives:

1. Students will develop the ability to think in a deductive manner.
2. Students will develop a sense of neatness and accuracy.
3. Students will understand how to manipulate computer software to create mechanical drawing.
4. Students will be able to use CAD (computer-aided-drawing) to design products.

Contents: Students will be introduced to the basic concepts of computer-aided drafting, as well as different types of CAD software available. Students will be required to use various drawing techniques of a computer-aided drawing system, along with modifying, dimensioning, and creating text for drawing using the computer.

Term Assignments Required: Term paper or project. Completion of all laboratory activities required.

CAD 2 616

0.50 Credit Level: None
Grades: 10, 11, 12
Prerequisites: CAD I
Learning expectations: 5, 7
Objectives:

1. Students will understand the process and developments of multi-view drawings.
2. Students will better comprehend true shapes and sizes of inclined surfaces.

Contents: A continuation of CAD I, but much more sophisticated.
Term Assignments Required: Term paper or project. Completion of all laboratory activities required.

COMPUTER MANAGEMENT 683

0.50 Credit Level: None
Grades: 11, 12
Prerequisites: None - Students who have taken or are taking Networking and/or PC-Repair are not eligible.
Learning expectations: 5
Objectives:

1. To introduce students to the computer workstation and its maintenance.
2. To introduce students to basic networking.
3. To introduce students to personal computer administration.

Contents: Computer Management is designed to help the students who have not been involved with computers, except as a tool, to learn how a computer works, how to maintain them correctly, how to network them and how to administer them.
Term Assignments Required: The completion of all projects and activities are required to receive a passing grade.

ELECTRICITY AND ELECTRONICS 618

0.50 Credit Level: None
Grades: 10, 11, 12
Prerequisites: None.
Learning expectations: 7
Objectives:

1. Students will understand the basic requirements of an electrical circuit.
2. Students will gain an understanding of Ohm's Law as pertaining to various circuits and components.
3. Students will gain skills as they pertain to technology appliances.

Contents: Electricity and Electronics is an introductory course where students will be given an opportunity to develop skills in design, construction and analysis from laboratory experiences. Over the semester electron theory, component design, circuit configuration, and data acquisition will be presented. Students will be required to construct an electronics project of their own choice.
Term Assignments Required: Term paper or project and completion of all laboratory activities.

ENGINEERING THE FUTURE 628A

0.50 Credit Level: 1
Grades: 9, 10
Prerequisites: None.
Learning expectations: 5, 7
Objectives:

1. Students will learn what technology is.
2. Students will learn what engineers do.
3. Students will be able to translate plans, diagrams and working drawings in the construction of a prototype.
4. Students will learn about science to create or improve technology.
5. Students will learn the implications of new technologies.

Content: Creating the world of the 21st Century is a full-year course. Engineering the future is a laboratory course in which students will be expected to design, build and test prototypes. Students can fabricate their inventions in the laboratory or shop with a variety of materials and conduct experiments involving water and electricity. Through this course's practical real-world connections, students have an opportunity to see how science and mathematics are part of their every day world, and why it is important for every citizen to be technologically and scientifically literate. This course is meant to help students-whether they eventually choose to enter a university, another tertiary education institution, or the world of work-better understand the designed world and the wide variety of career paths that a person might take in designing, manufacturing, maintaining, or use technologies. This course is intended to provide opportunity for students to practice and integrate learning in the subjects of math and science, and to stimulate further interest in learning more about science and math in the future.
Probable Projects:
Project 1 Design the World's Best Organizer
Project 2 Designing Sustainable Cities

ENGINEERING THE FUTURE 628B

0.50 Credit Level: 1
Grades: 9, 10
Prerequisites: None.
Learning expectations: 5, 7
Objectives:

1. Students will learn what technology is.
2. Students will learn what engineers do.
3. Students will be able to translate plans, diagrams and working drawings in the construction of a prototype.
4. Students will learn about science to create or improve technology.
5. Students will learn the implications of new technologies.

Content: Creating the world of the 21st Century is a half-year course**.** Engineering the Future is a laboratory course in which students will be expected to design, build and test prototypes. Students can fabricate their inventions in the laboratory or shop with a variety of materials and conduct experiments involving water and electricity. Through this course's practical real-world connections, students have an opportunity to see how science

and mathematics are part of their every day world, and why it is important for every citizen to be technologically and scientifically literate. This course is meant to help students-whether they eventually choose to enter a university, another tertiary education institution, or the world of work-better understand the designed world and the wide variety of career paths that a person might take in designing, manufacturing, maintaining, or use technologies. This course is intended to provide opportunity for students to practice and integrate learning in the subjects of math and science, and to stimulate further interest in learning more about science and math in the future. This course will have different engineering designs then Engineering the future 628A.

Probable Projects:

Project 3 Improve a Patented Boat design (Fluid and Thermal Systems)

Project 4 Power to Communicate: Electrical and Communication Systems

GRAPHIC COMMUNICATIONS 1 651B

.50 Credit Level: 2
Grades 10, 11, 12
Learning expectations: 5, 7
Objectives:

1. Student will gain knowledge of the field of Graphics Communications.

Course Description: This course is an introduction to Graphic Communications and will cover the history of Graphic Communications, the major printing processes, the printing industry and the safe use of equipment. Units will be offered in the following areas: hand composition, proof press, bindery operation, block cuts, screen printings, printer's measure, paste-up, desktop publishing, and process camera. Throughout the course a number of practice job sheets along with projects will be used to develop skills in the various processes introduced above.

Term Assignments Required: Completion of all laboratory activities.

GRAPHIC COMMUNICATIONS 2 652

0.50 Credit Level: 2
Grades 11, 12
Prerequisite: Successful completion of Graphic Communications I.
Learning expectations: 5, 7
Objectives:

1. Student will refine their knowledge of the field of Graphics Communications.

Course Description: This course is a continuation of Graphic Communications I. Graphic Communications will include the study of paper, how it is made, the different types and their uses, along with printing inks, their composition and their use. This course will stress offset operations with units in desktop publishing, paste-up, line camera artwork, stripping, plate making, and presswork. Photo screen-printing preparation will also be included. The course will include practice work sheets along with a number of projects to develop skills in the above units. The student's skills will be refined so they can achieve success in the field of Graphic Communications.

Term Assignments Required: Completion of all laboratory activities.

PC REPAIR 656

1.00 Credit Level: 1
Grades: 11, 12
Prerequisites: None
Learning expectations: 5, 7
Objectives:

1. Students will learn the basics of computer repair and customer relations skills, while starting to prepare for the (Comp TIA) competency exam.

Contents: PC Repair will teach students the principles of computer troubleshooting and repair at both the software and hardware level. Customer relations and satisfaction will be stressed in preparation for the A+ Certification Exam. Students who successfully pass the two test modules will become Industry certified as service technicians. (The test is offered by the Computing Technology Industry Association.)

Term Assignments Required: Completion of all activities, and term papers.

TECHNOLOGY EDUCATION 624

0. 50 Credit Level: None
Grades: 9, 10, 11
Prerequisites: Successful completion of Intro to Technical Drafting/ Technology
Learning expectations: 5, 7
Objectives:

1. Student will be provided tasks that will be solved by using various types and levels of technology so they better understand the role of technology in today's society.
2. Students will have a better understanding of the role of an engineer in today's technology society.
3. Student will be made aware of the relationship of math and science and the technologies of today.

Contents: This course will retain a strong hands-on /minds-on approach common to the technology education methodology and problem solving.

Term Assignments Required: Completion of all laboratory activities.

WEB PAGE CONSTRUCTION 654

0.50 Credit Level: None
Grades: 10, 11, 12
Prerequisites: No Previous Knowledge of HTML.
Learning expectations: 5
Objectives:

1. Students will become familiar with the Internet and its workings.
2. Students will be able to develop a Web Site with the use of Hyper Text Markup Language.

Contents: Web page construction is an introductory course to the code that is used to create the pages and sites of the Internet. Students will learn how to create web pages with links, images and style, how to navigate a Web Site, and how to install a Web Site. The course will also look into the workings of the Internet and the maintenance

Term Assignments Required: The completion of an acceptable Web Site that may be uploaded to the Internet. Completion of all laboratory activities.

WEB SITE CONSTRUCTION 648

0.50 Credit Level: None
Grades: 11, 12
Prerequisites: Web Page Construction or Instructor approval
Learning expectations: 5
Objectives:
1. To review Hypertext Markup Language principles.
2. Animations
3. Image Maps
4. To introduce Dynamic HTML.
5. To Introduce Forms and Multimedia.
6. To Introduce JavaScript and Applets.

Contents: Web Site Construction is a second level course that is used to create the pages and sites of the Internet. Students will learn how to create advanced Web Sites with links, images and style using advanced Web Site techniques.
Term Assignments Required: The completion of an acceptable Web Site that may be uploaded to the Internet. Completion of all laboratory activities.

WOOD CONSTRUCTION AND DESIGN 612

0.50 Credit Level: 2
Grades: 11, 12
Prerequisites: General Woodworking / Woodworking Technology
Learning expectations: 5, 7
Objectives:
1. Students will develop an appreciation of well-constructed and designed furniture.
2. Students will develop skills in proper and safe utilization of power equipment.

Contents: Wood Construction and Design will build upon the information and woodworking techniques developed in General Woodworking / Woodworking Technology. All major power tools will be accessible to students. Furniture and structure construction techniques will be stressed.
Term Assignments Required:
1. One or more acceptable projects, depending on its size and complexity.
2. Term projects or paper.

WOODWORKING TECHNOLOGY 611

0.50 Credit Level: 2
Grades 10, 11, 12
Prerequisites: None.
Learning expectations: 5, 7
Objectives:
1. Students will understand the proper use of hand tools.
2. Students will develop good organizational and work habits.

Contents: Woodworking Technology will provide knowledge of the wood industry, the tools/process and the skills used in working with wood materials. It is intended that students will discover and develop their interest and abilities that may be used for personal reasons or to prepare for further study, as well as gain knowledge of job opportunities, working conditions and requirements and products of the wood industry. Students complete units on shop orientation, wood technology, shop planning and drawing, hand processes, power hand tools and mass production.
Term Assignments Required: Projects or equivalent. Term project or paper.

• VISUAL ARTS •

ART 1 701

0.50 Credit Level: None
Prerequisites: None
Learning expectations: 8
Objectives:
1. To train the student to perceive and interpret the natural world in an artistic and creative manner.
2. Connections are made to periods of art and/or artists to reinforce concepts and principles.
3. To explore and find art media which will lead to rewarding, meaningful and successful experiences.
4. To work and create in various two and three-dimensional media and to explore the unique characteristics of these particular media and the tools associated with them.

Contents: The first course in the senior high art program consists of experimentation with a variety of media and techniques. Emphasis is placed on the basic principles of good design and their application. A more professional approach to the preparation and presentation of art projects is taught. Neatness is stressed and the student is taught the proper care of tools and materials. Projects are presented which require the student to pursue the fine arts as well as the applied arts. In this course, there are several projects that are required in order to expose the student to various media in order to produce and accumulate knowledge in the field of art. Some of these areas may include painting, sculpture, ceramics, drawing, and graphics.
Term Assignments Required: Sketchbook, short portfolio projects

ART 2 702

0.50 Credit Level: None
Prerequisites: Passing grade in Art I.
Learning expectations: 8
Objectives:

1. To develop good work habits in the use of various media.
2. To emphasize control in the execution of design, form, space and volume.
3. To encourage the student's confidence in his/her own ideas, attitudes and emotions.
4. To introduce new techniques in two and three-dimensional form with emphasis on the unique characteristics of particular media, materials and tools.
5. To familiarize the student with more advanced painting and illustrating techniques.
6. To help the student develop a holistic view of themselves through the experience of the creative process.

Contents: This segment of the art program concerns itself primarily with the media, techniques and design problems related to two and three-dimensional art. Students in Art II are given an opportunity to experience a variety of media in drawing, painting, graphics, etc. They will learn techniques of construction and develop a sense of design in various materials. Along with assigned projects, which are included to emphasize specific technical or design problems, time is allowed for a wide range of individual creative solutions.
Term Assignments Required: Portfolio projects

ART 3 703

0.50 Credit Level: None
Grades: Open to grades 11 and 12 only.
Prerequisites: Grade of C or better in Art 2 or teacher recommendation.
Learning expectations: 8
Objectives:

1. To develop new skills in two-dimensional and three-dimensional media on an advanced level.
2. To encourage the student to experiment with sculptural form in terms of space, form, and composition.
3. To make the student aware of the importance of presentation with regard to finished work.
4. To expose the student to contemporary and historic works of art.
5. To create an atmosphere for group dynamics, in which students may support one another in problem solving, communicating and growth, coupled with self and group critique.
6. To alert the student to, and enable them to identify potential health hazards associated with materials, techniques and art environments, and to work safely within the studio.

Contents: This course is comprised of students with a greater that average interest and ability in art. Consequently, finer materials are used, more complex techniques are encouraged, and more sophisticated results expected. Large paintings are begun in Art III, and all projects are designed to promote originality and development of a more personal style. Features of this course are advanced original work in design and fabrication of artwork in both two and three-dimensional media. Students will work more realistically as well as in an abstract manner in all media available. Students planning further education in an art field will begin their portfolios during this course.
Term Assignments Required: Portfolio projects

ART 4 704

0.50 Credit Level: None
Grades: Open to grades 11 and 12 only.
Prerequisite: Passing grade of C or higher in Art 3 or teacher recommendation.
Learning expectations: 8
Objectives:

1. To enable the student to carry his/her designs and ideas from one media to another.
2. To encourage the use of creative thinking by exploring a single subject through a series of works varying media and technique or an in-depth study of one medium.
3. To promote the student's own ideas in developing artwork concerned with form and composition.
4. To acquaint the student with all aspects of media available.
5. To encourage the student to be able to evaluate his/her own work critically, as well as that of others.
6. To assist the art students planning a career in the art field to prepare their portfolios.
7. To introduce electronic imaging technology for reference and as a basis for the creation of original work.

Contents: This program is offered for the student who has completed Art III and wishes to further their education in art. All work on this level will be on a highly individualized level. Students will choose different areas to work in and investigate. They will progress in their own directions, trying new techniques and more complex problems. These will be discussed with the teacher at the beginning of the course, and a program of projects will be worked out. The program is flexible enough to fit the student's needs. Students planning further education in the field of art will continue preparing their portfolios with the emphasis on continuity, variety of media and presentation.
Term Assignments Required: Portfolio projects

ADVANCED ART 705

0.50 Credit Level: 1
Grades: Open to grade 12 only.
Prerequisites: B or higher in Art IV & instructor approval.
Learning expectations: 8
Objectives:

1. To allow for complete freedom in exploring the student's own capabilities and limitations
2. To allow the serious student the opportunity to prepare and complete a portfolio.
3. To create artwork that demonstrates the elements and principles adherent in developing a personal style.

4. To guide the student to create artwork that demonstrates facility in selective use of elements and principles of design in establishing their personal style.
5. To make the student aware of the vocational aspects in the art field.
6. To guide the students in their selection of educational selections in the field, taking into account the student's individual needs.

Contents: This course is designed only for the serious student wishing to further their education in the field of art. It is highly individualized and consequently may be scheduled during a period where another art course is scheduled. Because of the nature of this course the student should discuss electing it prior to selecting it for the following year with an instructor in the Art Department. The main scope of this course is portfolio preparation prior to application to a school or college of art. In addition, although a primary instructor will be assigned to each student, input from other members of the Art Department may be used in particular areas of expertise.

Term Assignments Required: Portfolio projects

DANCE 1 790

0.50 Credit Level: None
Prerequisites: Open to grades 9, 10, 11, 12
Learning expectations: 8
Objectives:

1. To provide a deeper and fuller understanding of music and dance as art forms.
2. To teach the correct posture and positioning for ballet, jazz, tap, and modern dance styles.
3. To encourage the development of flexibility, coordination, stamina, and strength through dance training and aerobic conditioning.
4. To provide students with a positive self-image through performance.

Content: Students will explore aspects of music and dance. Specific genres of dance, including Ballet, Jazz, Modern, Tap, and Broadway Style will be presented. Students will learn the basic movements of key dance styles, and their study of dance will culminate in a final choreography project and performance. This is an active class. Appropriate dance attire is required.

Term Assignments Required: You will be required to practice dance steps, to collaborate on choreography projects, and to participate in the observation of dance styles through the use of video presentations (i.e. movie musicals, dance concerts, etc.).

COMMUNICATION THROUGH DIGTAL DESIGN 750

0.50 credit Level: None
Prerequisites: None
Learning expectations: 5
Objectives:

1. Students will learn to use Adobe Photoshop and/or Creative Suite 3 to create digital projects.
2. Students will explore methods of visual organization, color theory and digital color systems
3. Students will learn image creation and manipulation
4. Students will graphic design principals to create magazine covers, book covers, or advertisement designs.
5. Students will learn how to build and manage an electronic portfolio.

Contents: Communication through Digital Design is an introductory level Visual Arts course that provides students with a foundation in 2 dimensional-design as well as valuable, industry standard, software skills. Students use Adobe Photoshop or Adobe Creative Suite 3 software to create professional quality print materials, and develop essential skills for career success in an increasingly digital world. Through a series of projects and lectures, students will gain the ability to use technology as a tool for communicating larger ideas and understanding a broad range of subjects.

Term Assignments Required: Students will be required to turn in projects and assignments from the various lessons given.. A final assignment will be required which encompasses many of the tools and techniques learned during the course.

DIGITAL PHOTOGRAPHY 709

0.50 Credit Level: None
Prerequisites: None
Learning expectations: 5
Objectives:

1. To train the student to perceive and interpret the natural world in an artistic and creative manner.
2. To develop an understanding of balance, repetition, rhythm, scale, proportion and unity through their work.
3. To learn techniques and skills necessary for successful personal photography.
4. To understand basic principles of image transfer and editing techniques.

Contents: Digital Photography is designed to meet the needs of the student who would like to learn to use his/her digital camera for effective personal photographs. Topics covered will include the care and maintenance of digital cameras, how to choose a digital camera, techniques in photography, editing and printing.

Term Assignments Required: A portfolio of completed projects.

3-DIMENSIONAL ART 771

.50 credit Level: None
Grades: Open to grades 10-12
Prerequisites: Passing grade of C or better in Art 1 or Digital Photography
Learning Expectations: 8
Objectives:

1. Students will explore different forms of 3-D art such as clay, plaster, wood, wire and mixed media with an emphasis on the elements and principles of design.
2. Student projects will be tied to discussion of art historical topics and/or uses of 3-D art in modern societies.
3. Creative writing assignments will accompany each work of art.
4. Students will critique their own art as well as the works of other artists.

5. Students will learn how find alternative uses for otherwise discarded items.

Contents: 3-D Art is an elective course that stresses 3-dimensions such as clay, sculpture, and mixed media with an emphasis on the elements and principles of design.

PHOTOGRAPHY 1 706

0.50 Credit Level: None
Grades: Open to grades 11 & 12 only.
Prerequisites: Grade of C or getter in Digital Photography, Communication through Digital Design, Art 1 or teacher recommendation.
Learning expectations: 5
Objectives:

5. To provide an outlet for creative expression by developing an ability for visual communication.
6. To develop self-discipline, responsibility, and self-motivation.
7. To develop an understanding of balance, repetition, rhythm, scale, proportion and unity through their work.
8. To develop a high level of respect for the care and use of equipment.
9. To reach an awareness of one's environment and awaken the senses to beauty.
10. To develop investigative and explanatory tendencies and to use these in the pursuit of creative photography.

Contents: The beginning course in photography involves an introduction to various aspects of camera and darkroom techniques. The emphasis is on the correct use and care of equipment and creative photography as an art media. The course consists of both classroom and studio work. Students work with various camera and darkroom equipment and are exposed to the specific technologies inherent in both. Students work in small groups as well as individually.
Term Assignments Required: A portfolio of finished work is required at the end of the first term and a portfolio of assigned and elective photographic work is required at the termination of the course. A test will be required each term to evaluate the understanding of process.

PHOTOGRAPHY 2 707

0.50 Credit Level: None
Grades: Open to Grades 11 & 12 only.
Prerequisites: Passing grade of C or higher in Photography I.
Learning expectations: 5
Objectives:

1. To provide advanced training in the field of photography.
2. To introduce occupational and vocational opportunities related to photography, and to provide areas of practical application.
3. To experience various aspects of photography to include advanced techniques in both camera and darkroom application.
4. To continue to expand the concepts acquired in Photography I.
5. To analyze how photography and photographers have affected our society, and investigate the various roles that they serve.
6. To make known the power of photography and the use of the camera as a tool for the extension of the human senses.
7. To introduce new technology and new media as it affects the field of photography.

Contents: Photography II is a basis for providing vocational training in professional photography as well as its use as a creative medium. The serious student may use it as a foundation for further education in the field. More advanced techniques are explored and more professional results required in this course. Students will work in researching creative techniques in both camera usage as well as print alteration. The history of photography will be explored as well as the use of photography as a creative means for self-expression. Students planning for further education or a career in photography may begin their portfolios within the context of this course.
Term Assignments Required: A portfolio of finished work is required at the end of the first term and a portfolio of assigned and elective photographic work is required at the termination of the course.

ADVANCED PHOTOGRAPHY 708

0.50 Credit Level: 1
Grades: Open to grade 12 only.
Prerequisites: Passing grade of B or higher in Photography II & Instructor Approval.
Learning expectations: 5
Objectives:

1. To provide vocational experiences in photography and to incorporate areas of practical application of work.
2. To provide an atmosphere of self-reliance, self-discipline, self-motivation and responsibility regarding their work, equipment, and work environment.
3. To learn to master the tools and techniques in the media of photography. To provide the serious student an opportunity for creative investigation and expression.
4. To allow the students time to prepare portfolios if they wish to further their education in photography.
5. To introduce new media as it applies to photography both as a creative and commercial medium for expression.
6. To provide the school district a photographic service.

Contents: This course is limited in the number of students per semester who have met the requirements of the regularly structured photography program. It is highly individualized and consequently may be scheduled during a period where another art course is scheduled. Because of the nature of this course, the student should discuss electing it prior to selecting it for the following year with an instructor in the Art Department. The student must apply for the course and the instructor will make selection. Students are required to handle the photographic needs of the school. This may include yearbook, news releases, coverage of athletic events and the inter and intra-departmental needs, such as slide services, etc. Students will also investigate advanced techniques on an individual basis. Students wishing to further their education in the field will prepare their portfolio.
Term Assignments Required: A portfolio of finished work is required at the end of the first term and a portfolio of assigned

and elective photographic work is required at the termination of the course.

• VIDEO •

VIDEO PRODUCTION 680

0.50 Credit Level: None
Prerequisites: Grade of **C** or better in Digital Photography, Art 1 or teacher recommendation**.**
Learning expectations: 5
Objectives:
1. Students will learn various aspects of video production.

Content: Camera techniques, lighting, audio, and studio and field production will be covered along with basic editing procedures and computer assisted processes. There will also be an academic component, which will include but not be limited to communication skills. This is obviously a hands-on course but research, reports, projects and testing are all part of the program.
Term Assignments Required: Completion of all laboratory activities.

ADVANCED VIDEO PRODUCTION 681

0.50 Credit Level: None
Prerequisites: Passing Grade in Video Production
Learning expectations: 5
Objectives:
1. To provide advanced training in video production.
2. To provide real world experience in video editing on a computer.
3. To continue to expand ideas and techniques in Video Production.

Contents: This course is geared to those students who are interested in pursuing a career in any aspect of video production, including computer editing, digital sound, DVD production, animation and filming. The class is primarily based on studio work. Students will learn how to film against a blue screen, animation, DVD menu production and duplication. Students will be responsible for filming school events and activities and helping to provide maintenance on school video equipment.
Term Assignments Required: Each student will be required to submit an original short film upon completion of the course.

•INDEPENDENT STUDY PROGRAM•

It is the intent of this program to offer students (juniors and seniors) the opportunity to study in academic areas not normally available as part of the high school program. "Independent study courses are taken in addition to a normal class load (5.50 - 5.75 Credits) and not as a substitute for regular classes." (An exception to this rule may be granted in the rare instance when a committee consisting of the Principal or an assistant Principal, appropriate Department Coordinator, the sponsoring teacher and Counselor deem it to be in the student's best interest.) The following requirements must be met in order for a student to enroll in an independent study endeavor.

1. All independent study courses will commence at the start of the semester.
2. Conditions and requirements must be made between the student and the sponsoring teacher on a written contract basis.
3. Grade and credit conditions are the same as regular course offerings with the exception of GPA and Honor Roll calculation. Independent Study courses do not calculate into a student's GPA or Honor Roll.
4. Students may accumulate one credit per year in the program.
5. An independent study course must have a specific course title which reflects the contents.
6. Parent(s), Department Coordinator, and counselor must approve enrollment in an independent study course. Interested students who have questions concerning the program are asked to contact their counselor.

PATHWAY PROJECTS 950

0.50 Credit Level: None
Grades: Open to grades 11 and 12 only.
Prerequisites: Student in good standing (C average, 95% attendance record, no major discipline infractions)
Learning expectations: 9, 10
Objectives:
1. To work responsibly and productively with elementary level students in grades 2, 3, and 4
2. To provide community service through which students serve the Dudley-Charlton Regional School District's youth.
3. To empower students to positively influence their community through a work experience program.

Contents: "Project Pathway" is designed to take place after school within the Dudley-Charlton elementary schools. There will be a Shepherd Hill Regional High School advisor as well as a supervising teacher at the elementary schools. Students will participate in training sessions to prepare for the instructional portion of the course. At the elementary schools, students will fulfill 45 hours of service working with children in a variety of activities (to be determined by the supervising teacher). The students will receive a grade and credit for the course, but it will not be considered for honor roll or GPA status.
Term Assignments Required: Students must have an attendance rate of 95%, a final portfolio, a journal evaluating their assigned students' progress throughout the 45 hours, a final paper assessing the program and its educational benefits, and an evaluation from the elementary school supervising teacher.

RECOMMENDED CURRICULUM

Grade 9

Subject	*Credits*
English 9	1.00
World History	1.00
Physical Science	1.00
Foreign Language	1.00
Algebra 1, Algebra 2 (236) Adv.	1.00
Health 9	0.25
Physical Education	0.25
Elective	.50
Credits	**6.00**

Grade 10

Subject	*Credits*
English 10	1.00
U.S. History 1	1.00
Biology	1.00
Foreign Language 2	1.00
Geometry	1.00
Physical Education	0.25
Health 10	0.25
Grade 10 Elective	0.50
Credits	**6.00**

Grade 11

Subject	*Credits*
English 1	1.00
U.S. History 2, A.P. History	1.00
Science Course	1.00
Foreign Language 3	1.00
Math Course	1.00
Elective(s)	0.50
Physical Education	0.25
Financial Literacy	0.25
Credits	**6.00**

Grade 12

Subject	*Credits*
English 12, A.P. English	1.00
Math Course or Elective	1.00
Science Course or Elective	1.00
Elective(s)	2.25
Physical Education (optional)	0.25
Credits	**5.50**

Massachusetts State College and University Requirements

17 units including:

4 years English ~ 4 units
3 years Mathematics ~ 3 units
3 years Science (2 lab) ~ 3 units
3 years Social Studies ~ 3 units
** 2 years Foreign Language ~ 2 unit
Academic Electives ~ 2 units

**A Foreign Language is not yet a requirement for graduation, however all students planning to attend a four-year college are advised to select at least two years of the same language.