

Quaboag Regional Program Of Studies 2010-2011

High School edition



The mission of the Quaboag regional School district is to form a partnership with the parents and the community to prepare our diverse population of students to become lifelong learners in a nurturing, safe environment with high expectations to they will become responsible, productive citizens in an ever changing global society. Decisions are made in the best interest of our students.

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QUABOAG REGIONAL MIDDLE HIGH SCHOOL

DECISIONS ARE MADE IN THE
BEST INTERESTS OF OUR STUDENTS



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Dear Students, Parents, Guardians, and Community Members:

On behalf of the Quaboag Regional Middle/High School faculty, guidance department, and administration, we are pleased to introduce the 2010-2011 *Program of Studies*.

Guided by our school's mission statement and expectations for student learning, the *Program of Studies* was created to help students and their parents choose a challenging and interesting curriculum, a curriculum that will not only satisfy the requirements for graduation, but prepare students for a promising and fulfilling future.

We urge all students to take full advantage of the many challenging and fulfilling curricular and extracurricular opportunities available to them at Quaboag Regional Middle/High School. We offer a wide variety of electives, honors and advanced placement courses, extracurricular activities, and a host of exciting courses available to QRMTS through the Virtual High School program (VHS).

We are very proud that Quaboag Regional Middle/High School is fully accredited under the New England Association of Schools and Colleges (NEASC). This accreditation, which was renewed in the spring of 2002 after a very successful NEASC evaluation visit, is a measure of how well we adhere to the seven NEASC standards for education, which range from curriculum and instruction to school resources for learning. We are very proud of our NEASC accreditation and we continue to look for opportunities to make the learning experiences of our students second to none.

We strongly encourage students and their parents to use this valuable resource and carefully consider our mission statement and expectations for student learning as they plan their schedule for next year. Please feel free to call upon the assistance of our faculty, guidance department, and administration as you develop a course of study that meets your future goals and needs. We are eager to assist you in finding a schedule that best meets your student's educational needs.

The faculty, staff, and administration of Quaboag Regional Middle/High School remain steadfast in achieving our vision to create a school where all students may achieve at the highest levels. We are mission-driven, student-centered, and always seeking to improve. Have a great year!

Sincerely,

Gregory B. Myers
Principal

Mary M. Detnalowicz
Interim Dean of Students



COMMITMENT TO EXCELLENCE IN EDUCATION

Course Requirements for Graduation

English	4.0 credits
Writing Lab (Gr. 9)	0.5 credit
Mathematics	3.0 credits
Social Studies	3.0 credits (including US History)
Science	3.0 credits (including Biology)
Physical Education	0.5 credit
Health	0.5 credit
Project Adventure	0.5 credit
Keyboarding Applications	0.5 credit
Computer Applications	0.5 credit

Credit Requirements for Promotion and Graduation

Beginning with the 9th grade, progress toward graduation depends upon the accumulation of credits. Students' programs are checked and rechecked to make certain that each student will have adequate credits to progress with his/her class. Although every effort is made to advise students of their progress towards meeting requirements, ultimate success in meeting the requirements is the responsibility of each student and his/her parent(s).

Students should know their credit total to date and be certain that they have credits for promotion. The minimum requirements for entrance to grades 10, 11, and 12 are:

For entrance to grade 10	6 credits
For entrance to grade 11	12 credits & MCAS completion
For entrance to grade 12	18 credits
For graduation	24 credits

Curriculum Levels

Quaboag Regional Middle/High School offers Advanced Placement courses in areas such as English, Social Studies, Mathematics and Art. These programs prepare students to take the College Entrance Examination Board Advanced Placement Tests in their respective fields. Courses designated as honors are appropriate for students with strong academic qualifications. Students are recommended for honors courses by departments on the basis of ability and performance.

Scheduling Process

Read the academic regulations and the course descriptions carefully. Consult with your parents, teachers, and counselors in completing the pre-registration form. The completed pre-registration form, signed by your parents, is to be turned in to your counselor before the announced deadline.

After your pre-registration form has been turned in, it will be referred to the various departments for verification of level assignment and required course approval. You will receive a computer printout of your course selections and approved placements. The information gained through pre-registration is used to determine a master schedule based on pupil requests. Courses receiving insufficient requests will not be offered. A class list of students requesting and subsequently approved for a particular course will be generated for each course. These students will have first priority over later requests.

A MASTER SCHEDULE of courses, teachers, and time blocks will be generated to meet the requests of the greatest number of students possible. Every effort will be made by guidance counselors to correct student conflicts after consultation with students.

Course Changes/Withdrawals

Students are encouraged to take a challenging program, but also to be realistic about their commitments in and out of school. When a student believes that he or she needs to change a course selection during the school year, he or she should first confer with the teacher, parents, and guidance counselor. If the decision is made to make a change, the following guidelines must be followed:

1. Course changes during the first week of school necessitated by conflicts, changes in course offerings, errors in the scheduling program or misplacement of a student will not be reflected on a student's record.
2. Changes made after the first week through the midpoint of the first quarter will result in the course appearing on the transcript as a "W" (withdrawal) if the student is passing at the time of withdrawal. A student receiving a "WP" will not have a grade for the course computed into the cumulative grade point average. A student who is failing a course at the time of withdrawal will receive a "WF" and the failing grade will be computed into the cumulative grade point average.

Summer School Credit

For a student to be eligible for Summer School, a minimum grade of 50% must be earned in the course. Guidance counselors must approve summer school courses for credit of any kind prior to enrollment. If counselor approval is not obtained, credit may not be granted.

Reporting Progress

Report cards are issued four times during the school year. Grades are reported for the first term, second term, first semester, third term, fourth term, second semester and year.

Grading System

Excellent	A+ to A-
Good	B+ to B-
Average	C+ to C-
Poor	D+ to D-
Failing	F

Grading Code

P	=	Pass
I	=	Incomplete
WP	=	Withdraw Passing
WF	=	Withdraw Failing
M	=	Medical Excuse
N	=	No Grade

Poor school attendance often results in poor academic performance and may well cause difficulty in the future. Progress reports are issued in the middle of each marking period to call the attention of students, and that of their parents, to work that is not up to the standards expected. In many instances it is desirable that such notices be supplemented by a conference between the student, his/her parents, and the teacher. On occasion students and their parents may wish to discuss scholastic difficulties with guidance

counselors as well. Teachers may also use the written reports to record work students have done exceptionally well.

Homework

Homework is assigned in all those courses in which it is feasible and useful. It will vary from simple practice assignments to be completed in one night to major projects covering a period of several weeks. The amount of credit to be given to such assignments is determined by the nature of the course, and the policy of the department. If the class is given an assignment, each member must pass in the work on time or make it up. Each faculty member has a "Homework Hotline".

Make Up Work

Incomplete work at the end of marking period must be made up within **ten** school days after report cards are issued or a failing grade will be recorded for the missing work. The principal may approve an extension of time when special circumstances prevail. Class work missed because of an excused absence should be made up as soon as possible, at the discretion of the teacher. Work missed during unexcused absence(s) may not be given credit. Students who have not completed all course work within **ten** days of the conclusion of the school year will receive a grade of "F" for any missing work and will receive the grade for the course including failing grades for missing work. Students who are absent on a day when a test or quiz is given will make up the test or quiz as per STUDENT HANDBOOK REQUIREMENTS. Students, who must leave school before the end of the year, must complete their work before leaving. **Seniors must complete and submit all work by the last day of scheduled classes in order to meet graduation requirements. Further information on make-up policies are found in the Student Handbook.**

Extra Help

A student who has been ill, is not working up to ability, or is having difficulty in a course should report to their teacher(s) for individual help. Every teacher has after school time devoted to this purpose. Teachers may require a student to attend help sessions.

Credit for Community Service

Students may acquire up to 0.25 credits per semester for service to the community. For further information see your guidance counselor and the description in the Program of Studies.

Final Scheduling of Courses

Courses listed in this Program of Studies will be offered only if there is a sufficient enrollment and adequate staff as determined by the administration and school committee.

Exchange Students

A student who spends his/her sophomore, junior or senior year as an exchange student in a secondary school of another country may receive appropriate credit toward graduation after the evaluation of his/her program by the principal and his/her guidance counselor. The proposed program must have the approval of the principal prior to final commitment abroad. Similar regulations apply to students pursuing other forms of study abroad.

Building a Solid College Application

In a school system, which sends over 70% of its graduates to college, an important question is, "What constitutes a good record of application to college?" The suggestions, which follow, encapsulate the recommendations of college admissions representatives:

- 1. A good record** will show diversity of experience. Students should choose a variety of courses in addition to those in the Central Curriculum. Admissions officers respect a student's willingness to try new things, take risks, and branch out.
- 2. A good record** will show that a student chose to work at his/her level of competence.
A grade of B+ in an honors course is preferred to an A in a College Prep course.
A grade of C in a College Prep course is preferred to a B in a Multi-level course.
- 3. A good record** will show that a student participated in activities outside the classroom. Sustained contributions to sports programs, publications, student government and community volunteer work, and employment are welcome evidence of personal competency and commitment.
- 4. A good record** will be supported by letters of recommendation from faculty, which present the applicant as a healthy, conscientious student who has personal integrity and merits the respect of students and faculty.

It is possible - but not advisable - to "manufacture" a good high school record. Students who do their best with their studies and pursue their interests in electives, extra-curricular activities and community projects will find their high school years to be rewarding and will emerge with "a good record." In this, as in college interviews, it is important to be yourself.

The College Board

Nationally, two standardized testing agencies compete to certify the competence and achievement of applicants to colleges and universities. Such certification has become necessary because of the diverse educational backgrounds of graduating seniors who come from the thousands of public and private secondary schools.

The newer of the two agencies, the ACT - American College Testing Corporation - serves many Southwestern and Midwestern schools as well as various West Coast institutions. Quaboag Regional High School is a member of the other agency, the CEEB - College Entrance Examination Board - that is located at Princeton and coordinates with ETS - Educational Testing Service - in design and administration of various standardized tests. These tests fall into three test categories

The first test category is the SAT-I: Reasoning Test, an attempt to predict what a student is capable of doing at the collegiate level.

This is conventionally taken in the junior and senior year. The SAT-I assigns scores from 200 to 800 in the fields of critical reading, math and writing aptitude. Juniors usually try the "dry run" for this test, the PSAT - Preliminary Scholastic Assessment Test - that also serves as the test to determine awards of National Merit Scholarships. Scores on the PSAT are reported on a scale from 20 to 80.

The second category of tests is the SAT-II Subject Tests, an evaluation of a student's mastery of various course contents. The College Board offers fifteen different subject tests. Many competitive colleges ask students to submit three subject test scores in support of their applications. These usually include English and mathematics, the third test being the student's choice among history, foreign language and science.

The third category is the testing of college-level courses offered in many high schools. This is the Advanced Placement (AP) Program, which awards students college credits and/or course exemptions at cooperating colleges and universities. Students who take AP tests receive numerical scores from 1 to 5. Scores of 3 or above are normally considered passing grades at the college level and more than 90% of 4 year colleges and universities grant credit or placement for qualifying AP exam grades.

Quaboag Regional students usually take the SAT-I in their junior and senior years. SAT-II's are most frequently taken at the end of an honors course or in the third year of a sequence, depending on the student's strengths and interests. Decisions on when to take the various national standardized tests should be made in consultation with the Guidance Office.

Early Graduation

Students may complete graduation requirements in less than four years. This program is designed for students who have **specific plans** for the future and thus, will benefit from an early start. Planning and preparation are necessary to set up an appropriate schedule for early graduation. Students who wish to graduate early must develop a plan with a counselor and present it to the principal for approval as soon as possible after beginning high school and in all cases, **prior to the beginning of the third year**. The principal will consider each application individually.

PLEASE NOTE

1. No student will be discriminated against for admission to any course offered at QRMHS by reason of sex, race, homelessness, color, religion, or national origin.
2. Students and parents are encouraged to consult the guidance department concerning any questions about a course or program sequence.
3. Each high school student must take a minimum of SIX (6) credits. Grade 10 students must take six credits plus physical education. Grade 9 students must take a semester of Project Adventure.
4. Students may not elect more than six (6) major courses without permission from a guidance counselor.
5. Prerequisites for advanced courses are noted in the course descriptions and must be met before admittance into these courses.
6. Students with English grades less than "C" should not elect a foreign language without consulting the Foreign Language Department and their guidance counselor.
7. Only one foreign language should be started in any year.
8. Students should plan to study a foreign language for a **minimum** of two years in grades 9-12.

9. Students who fail a subject required for graduation must pass that subject in accordance with the QRMHS make-up policy.
10. Students may earn credit towards graduation through approved correspondence courses and/or college level work at approved institutions. Students must get prior approval from a counselor or administrator for acceptance of credits from an outside source. Students will be allowed to take no more than 2 correspondence courses in any given year as a make-up for a failed class or as an elective. No more than 4 credits of correspondence course work may be counted toward meeting graduation requirements. Students cannot take correspondence courses to replace a course offered at High School unless the student has previously had the course and has failed it.
11. Students who withdraw before completion of a course **will not** receive credit.

Credits

1. Every authorized high school course meeting five days a week, or its equivalent, during the entire school year, will be given one course credit. One-semester courses will receive .5 credits.
2. Student must have earned at least 6 credits to enter grade 10, at least 12 credits to enter grade 11, and at least 18 credits to be a member of the senior class.
3. Students will receive credit for the same subject only once.

Honors/Advanced Placement (AP) Courses

Certain courses (listed below) require a greater academic effort and are more challenging than others. The following honors courses are weighted for students who successfully complete them. An honors course means that for class rank purposes only, an earned final grade is averaged as one half grade level higher and AP courses are one full grade higher.

COURSE TITLE(S)	COURSE NUMBERS
Honors English 9	194
Honors English 10	104
Honors English 11	114
Novel Study	154
British Literature	157
Honors Civics 9	204
Honors World History	244
Honors Geometry	304
Honors Algebra II- 9	394
Honors Analysis	334
Honors Biology	404
Honors Physics	424
Honors Chemistry	435
Honors Earth Science	494
Honors Accounting II	548
Honors Spanish 3,4,5	604,614,624
Honors French 3,4,5	634,644,654

AP Courses	COURSE NUMBERS
AP English Literature	136
AP English Language and Comp	137
AP Calculus AB	322
AP Calculus BC	323
AP Computer Science	550
AP Art 2D Design	821
AP Art Drawing	822
AP Art 3D Design	823
AP US History 1, 2	233,234
AP Chemistry	445
AP Music Theory	871
AP Psychology	233

MASSACHUSETTS STATE COLLEGES AND UMASS MINIMUM ADMISSIONS REQUIREMENTS

The admissions standards for the state colleges and the University of Massachusetts emphasize a strong academic high school background so that students enter college ready to learn. These standards represent minimum requirements; meeting them does not guarantee admission, since campus officials consider a wide range of factors in admissions decisions. Students shall have fulfilled all requirements for the high school diploma or its equivalent upon enrollment. It is important to note that admissions standards for the state's community colleges differ. Community colleges may admit any high school graduate or GED recipient.

Freshman Applicants

The admissions standards for freshmen applicants have two main parts:

1. Sixteen (16) required academic courses.
2. A minimum required grade point average (GPA)* earned in college preparatory courses completed at the time of application.
*Recalculated by the college or university.

Applicants must also submit an SAT or ACT score.

Academic Course Requirement

Sixteen college preparatory courses distributed as follows are required. (A course is equivalent to one full school year of study. Courses count toward the distribution only if passed.)

- ◆ English 4 courses
- ◆ Mathematics 3 courses (Algebra I & II and Geometry or Trigonometry, or comparable coursework)
- ◆ Sciences 3 courses (including 2 courses with laboratory work)
- ◆ Social Sciences 2 courses (including 1 course in U.S. History)
- ◆ Foreign Languages 2 courses (in a single language)
- ◆ Electives 2 courses (from the above subjects or from the Arts & Humanities or Computer Sciences)

Minimum Required Grade Point Average (GPA)

The GPA must be achieved based on all college preparatory courses completed at the time of application and should be weighted for accelerated (Honors or Advanced Placement) courses. The required minimum weighted high school GPA is 3.0 for the four-year public campuses.

**State College GPA
3.00**

**University GPA
3.00**

SAT Scores

Applicants who meet the GPA requirement do not have to use the sliding scale for admission, but still must submit SAT or ACT test scores for consideration if they are applying to a state college or the University of Massachusetts within three years of high school graduation.

Sliding Scale (used when GPA is lower than the minimum required GPA)

If an applicant's GPA falls below the required minimum, a sliding scale will apply. This scale should be used only when an applicant's GPA falls below the required 3.0 minimum for admission to the state colleges or the University of Massachusetts.

Scores on the new writing section of the SAT will not affect the sliding scale for freshman applicants to the Massachusetts state colleges and to the University of Massachusetts at this time. The sliding scale, used in making admissions decisions for students with high school grade point averages falling below the required minimum, will continue to be based upon the combined critical reading (verbal) and math sections of the SAT.

Sliding Scale for Freshman Applicants to the University of Massachusetts

Weighted High School GPA	Combined SAT-I V&M Must Equal or Exceed <i>(ACT Equivalent in Italics)</i>
2.51-2.99	950 <i>(20)</i>
2.41-2.50	990 <i>(21)</i>
2.31-2.40	1030 <i>(22)</i>
2.21-2.30	1070 <i>(23)</i>
2.11-2.20	1110 <i>(24)</i>
2.00-2.10	1150 <i>(25)</i>

NO APPLICANT WITH A HIGH SCHOOL GPA BELOW 2.00 MAY BE ADMITTED TO A STATE COLLEGE OR UNIVERSITY CAMPUS.

Sliding Scale for Freshman Applicants to a State College

Weighted High School GPA	Combined SAT-I V&M Must Equal or Exceed <i>(ACT Equivalent in Italics)</i>
2.51-2.99	920 <i>(19)</i>
2.41-2.50	960 <i>(20)</i>
2.31-2.40	1000 <i>(21)</i>
2.21-2.30	1040 <i>(22)</i>
2.11-2.20	1080 <i>(23)</i>
2.00-2.10	1120 <i>(24)</i>

ART DEPARTMENT

The Art Department provides courses open to students in all grade levels (9-12). The overall goals of the Art program are to teach the fundamentals of design, drawing, painting, and sculpture, to introduce students to the art of other cultures, to increase visual awareness, and to develop a sense of appreciation for the arts. Through a wide variety of experiences, students develop basic skills and explore their creative potential.

Foundations in Art (840)

Grades: 9-12

0.5 credit – semester

Level: Multi-level

Foundations in Art is an elective available to all high school students. It is a basic learning/exposure course in the fundamentals of art. Through lecture, demonstration and student research, students will have the opportunity to experience different techniques in the areas of drawing, painting, art history, ceramics and crafts. This course requires group and individual visual arts projects, a sketchbook containing homework assignments and personal projects, as well as written evaluations of art and artists. This course complies with state and national visual arts standards, demonstrates problem solving and looks in depth at the relationships between the arts and society.

Advanced Foundations in Art (850)

Grades: 9-12

0.5 credit – semester

Level: Multi-level

Prerequisite: A grade of C or better in Foundations in Art or permission of teacher

Advanced Foundations in Art is an elective available to all high school students. It is a basic learning/exposure course in the fundamentals of art. Through lecture, demonstration and student research, students will have the opportunity to experience different techniques in the areas of drawing, painting, printmaking, sculpture, Architecture, and art history. This course requires group and individual visual arts projects, a sketchbook containing homework assignments and personal projects, as well as written evaluations of art and artists. This course complies with state and national visual arts standards, demonstrates problem solving and looks in depth at the relationships between the arts and society.

Advanced Foundations in Art Alternative (853)

Grades 9-12

0.5 credit- semester

Level: Multi-level

Prerequisite: A grade of 90 or better in Foundations in Art, Teacher permission, and the inability to take Advanced Foundations as an in-school class

This modified online course is available only to students who can not take Advanced Foundations as an in-school class. The student and parents must sign a contract agreeing to a timeline and course expectations. Self motivation in the student is a requirement.

Digital Photography (855)

Grades: 11–12

1.0 credit- Year

Level: Multi-level

Priority is given to juniors and seniors.

The course contains units in the techniques of digital photography including relevant ties to history and cultural literacy. Opportunities for analytical thinking in the contexts of history, aesthetics, studio work, and criticism are included in each unit.

Graphic Design (538)

Grades: 10-12

1.0 credit – Year

Level: Multi-level

Prerequisite: C or better in Computer Applications

This practical, hands-on, project-oriented course encourages students to develop basic graphic design skills using page layout, photographic, and illustration software like Adobe PageMaker, Adobe Photoshop, and Adobe Illustrator. Emphasis will be on the aesthetics of good quality design to create professional layouts as well as an understanding of the current methods of print production. Students will be trained in digital photographic techniques, digital photo enhancement, as well as the basics of air brushing and silk screening as time permits. Opportunities for goal setting, problem solving and decision making are incorporated in the simulations and projects.

Portfolio Art (842)

Grades: 11-12

0.5 credit – semester

Level: Multi-level

Prerequisite: A grade of B or better in Conceptual Art and Advanced Conceptual Art or on the recommendation of the teacher

Portfolio Art is an elective available during the **fall semester only**. While this course has some requirements: keeping a journal, weekly drawings, study of professional practices, and to study careers in art, the majority of this course is student-directed in one of the medias listed: Portfolio, Illustration, Stained Glass, Mural Painting, Painting, Design, Ceramics and Printmaking. This course requires group and individual visual arts projects, a sketchbook containing homework assignments and personal projects as well as written evaluations of art and artists. The student and the teacher will assess projects and students will experience group critiques.

Independent Concepts in Art (852)

Grades: 11-12

0.5 credit – semester

Level: Multi-level

Prerequisite: A grade of B or better in Conceptual Art, and Advanced Conceptual Art and on the recommendation of the teacher

Independent Concepts in Art is an elective available during the **spring semester only**. While this course has some requirements: keeping a journal, weekly drawings, participation in the school art exhibit, and a final project, the majority of this course is student-directed in one of the medias listed: Stained Glass, Fashion Design, Painting, Sculpture, Computers in Art. This course requires group and individual visual arts projects, a sketchbook containing homework assignments and personal projects as well as written evaluations of art and artists. The student and the teacher will assess projects and students will experience group critiques.

Professional Practices in Art (873)

Grades: 11-12

0.5 credit – semester

Level: Multi-level

Prerequisite: A grade of B or better in Conceptual Art and Advanced Conceptual Art or the recommendation of the teacher

Professional Practices in Art is an elective available during the **fall semester only**. While this course has some requirements: keeping a journal, weekly drawings, study of professional practices, and to study careers in art, the majority of this course is student-directed in one of the medias listed: Portfolio, Illustration, Mural Painting, Painting, Design, Computers in Art, Independent Project or Ceramics. This course requires group and individual visual arts projects, a sketchbook containing homework assignments and personal projects as well as written evaluations of art and artists. The student and the teacher will assess projects and students will experience group critiques.

Art Advanced Expression (880)

Grades: 11-12

0.5 credit – semester

Level: Multi-level

Prerequisite: A grade of B or better in Conceptual Art and Advanced Conceptual Art and on the recommendation of the teacher.

Expression is an elective available during the **spring semester only**. While this course has some requirements: keeping a journal, weekly drawings, participation in the school art exhibit, and a final project, the majority of this course is student-directed in one of the medias listed, Drawing, Design, Sculpture, Painting, Independent project or Craft. This course requires both group and individual visual arts projects, a sketchbook Art containing homework assignments and personal projects as well as written evaluations of art and artists. The student and the teacher will assess projects and students will experience group critiques.

Advanced Placement Art

2D Design (821) Drawing (822)

3D Design (823)

Grades: 11-12

1.0 credit -year

Level: AP

High school students with four successful semesters of art (A average) may, with the teacher's permission, take one of the three Advanced Placement portfolio options; 2D Design, Drawing, or 3D Design. This course requires significant time outside of class. A student taking one of the Advanced Placement art courses is expected to be self-motivated, interested in art as a means of self-expression, and to have a basic understanding of art history, and visual art concepts. Students with two semesters of art (A average) may, with the teacher's permission, take Advanced Placement as a two year program. Advanced Placement credit will not be given until the student has submitted the advanced placement portfolio.

BUSINESS AND TECHNOLOGY DEPARTMENT

The Business and Technology Department considers the needs of the community, the interests and needs of the students, and the changing demands of business due to technological advances and economic situations. Emphasis is placed on those courses, activities, and units of instruction designed to meet immediate vocational needs of students who are preparing for initial employment in business/technology occupations or furthering their educational studies leading toward careers in business, management, entrepreneurship, engineering, computer technology or industrial technology. The business and technology programs prepare students for entry-level positions, as well as develop sound business ethics and a capacity for thinking and reasoning skills. The primary purpose of business and technology education is to familiarize students with the tools, products, processes, and occupations of business and industry as well as the social and economic phenomena of the technological world.

BUSINESS COURSES

Accounting I (546)
Grades: 10-12

1.0 credit - year
Level: College Prep

Since Accounting is the language of business, it is recommended that all students who are planning to study business, run their own business, or attend college majoring in business areas, have a background in Accounting. It is an introduction to the principles of accounting for a service business organized as a sole proprietorship and a merchandising business organized as a partnership. This course will give the student a strong foundation in accounting theory and prepare them for advanced accounting and business classes.

Accounting II (536)
Grades: 11–12

1.0 credit - year
Level: Honors

Prerequisite: B or higher in Accounting I—Approval of the Accounting I Teacher

Accounting II is an advanced study of accounting principles related to corporate accounting using an automated accounting program. This class is recommended to students who would like to continue their study of accounting principles and designed for students considering a business career in accounting, other business areas or business ownership.

Entrepreneurship (510)
Grades: 10-12

1.0 credit - year
Level: Multi-Level

Do you have a great idea to start a business and would you like to learn the proper way to do so? Would you like to study more about the principles of business and how they apply to starting your own business? If the answer is yes, then this course is for you. Entrepreneurship is the study of the principles of marketing, advertising, business management, sales, business organizations, and financial reporting related to planning and designing your own business. Students will experience hands-on control over the management and marketing of a simulated convenience store, making decisions on pricing, promotion, merchandising, market research and more. During the year, students

will also develop their business idea into a well organized and professional business plan that will allow them to make their dreams become a reality in the business world. Students will also be required to participate in the managing the "Cougar Corner" school store in order to gain first hand experience in running a business.

Personal Finance (330)

Grades: 11-12

1.0 credit - year
Level: Multi-level

Math Credit

What would you do with \$1 million? Spend it? Save it? Buy a Porsche, travel, shop 'til you drop, give it to charity? You will earn over \$1 million in your lifetime and you can choose to do whatever you want with it. Where will it go? In Personal Finance, you will learn about budgeting, the value of money, and how to purchase a car and insurance. You will also learn to set short, medium, and long-term financial goals, shop for the best financial institution, invest your hard-earned money, and much more! Start now using your allowance or your part-time job to prepare for the future. Learn how to have all the money you need today and tomorrow. This class will help every student become wise money managers. Several projects will be explored including the development of stock market portfolios and figuring out how to "Make Ends Meet".

Media Communications (505)

Grades 10-12

1.0 credits- year
Multi-level

**Prerequisites: C or better in KeyBoarding and Computer Applications
B or better in English**

Writing articles for newspapers and magazines requires that you take careful steps in developing ideas, planning an article, collecting information and focusing on the subject. This course focuses on journalism and how to present articles in an attractive inviting manner, including headlines, graphics and photography. Students will develop better communication skills and an understanding of journalistic expression through special projects in *Cougar Tracks*, Quaboag's award-winning school newspaper. They will produce editorials, develop advertising themes, express themselves critically and creatively in writing and reporting, photograph events, and design for newsprint. Students in this course need to be self-motivated, ambitious, curious, and willing to attend some after-school activities during the year.

TECHNOLOGY COURSES

Computer Keyboarding (553)

Grades: 9-12

0.5 credit - semester

Graduation Requirement

Keyboarding is learning to master the alphabetic, numeric, and ten-key using the touch-typing method of keyboarding to properly input information using technology. After learning how to key efficiently with good speed and accuracy, the student will develop this skill to higher levels and learn to apply their keyboarding skills composing letters, reports, tables, and other informational processing documents. Keyboarding is a universal skill that students will use throughout their lives for personal and career use.

Computer Applications (557) 0.5 credit – semester
Grades: 9-12
Graduation Requirement

Computer Applications applies the students' keyboarding skill using various computer applications that include: Microsoft Word, Excel, Publisher, and PowerPoint. At the end of the course, the student will have mastered basic computer skills in order to be prepared to take more advanced computer classes.

Web Design (565) 0.5 credits- semester
Grades 10-12 Level: CP
Prerequisite: C or better in Computer Applications

This introductory level course introduces HTML (Hypertext Markup Language), an authoring language used to create web sites on the World Wide Web. You will learn fundamentals of developing Web pages and common Web page formats and functions. The second half of the course introduces you to Macromedia Dreamweaver MX, a professional visual editor for creating and managing web sites and web pages, and Fireworks, a graphics program used to create and edit sophisticated images for the Web. Students will have the opportunity to contribute their creative talents and design knowledge by maintaining the school web site as well as building their own personal web site.

Computer Game Design (580) 0.5 credit - semester
Grades: 10-12 Level: CP
Prerequisite: B or better in Computer Applications

Computer gaming is an \$8 billion industry. This course will introduce you to the industry, the process of designing computer games, and the basics of actually programming games. Using the tools provided, you will learn about 3D shapes, wire frames, textures, terrains, lighting and cameras, and sound. Using all you learn, you will design and implement your own game.

Video Production (576) 0.5 credit - semester
Grades: 10-12 Level: Multi-Level
Prerequisite: C or better in Computer Applications

In this course, we will explore various techniques used in the creation and production of digital media. We will examine computer applications used in audio and video production, and develop skills and techniques that will be combined to create a series of small projects. Topics will include digital asset acquisition, audio editing and mastering, video editing and compression.

Computer Operations (572) 0.5 credit - semester
Grades: 10-12 Level: CP
Prerequisite: C or better in Computer Applications

This course is designed to be a complete, step-by-step approach for learning the fundamentals of supporting and troubleshooting computer hardware, and prepare

students for CompTIA's A+ certification exam. Topics covered include the basic hardware and software of a computer system, i.e. motherboard, video cards, and operating systems. Students will set up a basic computer system, install software and drivers, and resolve conflicts using basic troubleshooting techniques.

Computer Networking (573)

Grades: 10-12

0.5 credit - semester

Level: CP

Prerequisite: C or better in Computer Operations

This course is introductory, with thorough explanations of networking fundamentals such as protocols, network design and implementation, and troubleshooting and support, and has been designed to prepare users for CompTIA's Network+ certification exam. The course presents current coverage of networking hardware and software along with the skills necessary to succeed

Computer Science (550)

Grades 10-12

1.0 credits – year

Level: AP

Advanced Placement Computer Science is an introductory college-level course designed for students who plan to major in computer science as well as those who plan to major in other disciplines such as engineering, that require knowledge of computing. The course will also prepare the students to take the AP Computer Science A Exam given by the College Board. Successful completion of this examination may result in advanced standing in computer science in many colleges and universities.

Major topics covered in this course include: programming methodology, features of structured programming languages, classes, functions, static and dynamic data structures, development and analysis of algorithms, object-oriented programming, templates, inheritance and streams, libraries, error handling, analysis of large computer programs via the case study, computer systems components and their functions, responsible use of computer systems and programmer's ethics. Java is the required programming language of the AP Computer Science.

Each student will be expected to spend a minimum three hours per week alone on the computer. It is emphasized that this is not instructional time and that this time is considered to be the minimum required to complete this course. In addition, students participate in group programming projects that require design, implementation, testing and presentation.

Prerequisite: B or better in Algebra II

Engineering the Future (496)

Grade: 9

1.0 credit-year

Level: CP

*** Counts as a Science Credit**

This is a full year introductory engineering course that provides a strong foundation in general technology and offers students the opportunity to explore the social, historical and environmental contexts of emerging technologies. The course is designed to build technological literacy and provide students with an understanding of how we are all influenced by technology. This course will prepare students to take the technology test that will satisfy the Science MCAS requirement.

Also listed in the Science Department course offerings.

Automation Engineering (578) 0.5 credit - semester
Grades: 10-11-12 Level: CP
Prerequisite: B or better in Engineering in the Future or Science and Math

As a follow-up to Engineering the Future, this course introduces the use of microcontrollers in automation and engineering. Along with microcontrollers, you will learn about various devices, all controlled by a central microcontroller, and build a number of projects, such as a reaction timer, a clock, a light meter, and a ring tone player. Many of these will then be used to construct the final project - an M&M sorter.

Robotic Engineering (579) 0.5 credit - semester
Grades: 11-12 Level: CP
Prerequisite: C in Automation Engineering

This follow-up course to Automation Engineering involves building and programming a simple robot using a combination of mechanics, electronics, and problem solving. Some of the projects will involve teaching the robot to navigate using infrared, ultrasonics, and tactile sensors to avoid obstacles and to follow pre-determined paths. The mechanical principals, circuits, and programs are very similar to, and in some cases identical to, those used by professional robotic engineers.

Technical Drawing/CAD (747) 1.0 credit- year
Grades: 10-12 Level: CP
Prerequisite: Engineering the Future or approval of teacher

This course introduces students to drafting as a universal language. In the first part of the course, students will gain skill using drafting instruments and learning freehand lettering and sketching, drawing isometric, oblique, orthographic projections, and sectional views of objects, along with drafting terminology. In the second part of the course, students will apply their learning to computer assisted drafting (CAD) terminals to produce precision drawings that are used in a wide array of career opportunities in engineering, manufacturing, and construction. A final project of the student's choosing will highlight all the accumulated knowledge. Skills in communications, mathematics, science, leadership, and problem solving are reinforced in this course. This course is excellent for students who wish to pursue a career in engineering, architecture, construction, and machining.

Woodworking Technology (755) 1.0 credit - year
Grades: 9-12 Level: Multi-level

Students selecting this course will complete a program of exploratory basic skills in the use of hand and power tools. During this course, students will be introduced to machine woodworking, learn to understand working drawings, as well as woods and their properties, to purchase and measure lumber, and become aware of the importance of safety. Students will then be introduced to more complex machine woodworking, learn to understand working drawings, as well as woods and their properties, to purchase and measure lumber, and become aware of the importance of safety. The design process will be stressed. The student will also be required to complete a project using the wood lathe.

Introduction to Furniture Making (745)

Grades: 10-12

1.0 credit - year

Level: Multi-level

Prerequisite: C or better in Woodworking Technology

Students enrolled in this course will receive instruction that will lead to the expansion and improvement of skills learned in Woodworking Technology, become more proficient in performing cabinet making skills, and construct projects requiring greater efforts. Quality of workmanship will be stressed. The course will include the building of cabinets, refinishing of furniture, and a review of safety rules and practices. The design process will be stressed. Students will be required to construct a tam "Design Process" project.

Advanced Furniture Making (735)

Grades: 11-12

1.0 credit - year

Level: Multi-level

Prerequisite: C or better in Intro. To Furniture Making

The student enrolled in this course will develop proficiency and expertise in cabinet making skills. It will include a continuation and expansion of Introduction to Furniture Making, boat building, pattern making and other similar projects. The design process will be stressed.

Custom Furniture Making (725)

Grade: 12

1.0 credit - year

Level: Multi-level

Prerequisite: C or better in Advanced Furniture Making

This course will include a continuation and expansion of Advanced Furniture Making with completion of an individual furniture projects. Students also will be asked to participate in community service and/or school improvement projects.

SCHOOL-TO-CAREER PROGRAM

School-to-Career is a system designed to ensure students a seamless transition from secondary education into meaningful, high quality employment or further education. School-to-Career (STC) partnerships bring together educators, business/industry/labor, and community-based organizations to integrate academic and vocational-technical education and to more closely align secondary and postsecondary curricula. The goals of STC programs are to establish connections between the classroom and careers by establishing links between the following: curriculum and "real-world" applications, school and life to prepare for lifelong learning, schools and communities, and classrooms with workplaces. The School-to-Career program at Quaboag is based on programs that feature a combination of core academic courses and specialized electives that provide students with a sequence of courses that establishes a connection between the academic program in high school and future study and training in a specific career. Following completion of a course sequence, students are encouraged to participate in an internship with a sponsor related to the career field being studied. Some of the programs are also tied to the awarding of a certification or licensure and/or the awarding of college credit for courses taken in high school through articulation agreements with local colleges.

Internship - (590)	1.0 credit – Full year
Internship - (591)	0.5 credit – Fall semester 1
Internship - (592)	0.5 credit – Spring semester 2
Grades: 11-12	Level: Multi-level

Internships are work-based learning experiences in an organization or company for which students can earn academic credit. A Massachusetts Work Based Learning Plan will be developed by the employer/sponsor and the School-to-Career Coordinator to establish performance objectives and tasks that are expected to be accomplished by the intern during the internship. The internship takes place during one-block of the student's daily school schedule, or after school, and follows the school calendar for vacations and other non-school days. All interns must complete an internship application and arrange the internship with the School-to-Career Coordinator. Interns must submit weekly reports and write a final summary report at the conclusion of the internship to receive full credit. Students are graded on a pass/fail basis on competencies selected by the employer using the Massachusetts Work-Based Learning Plan and completion of the internship requirements.

ENGLISH DEPARTMENT

All English courses include written and oral assignments, study of vocabulary, spelling, and grammar. The basic skills of the English language are a part of each course. As attendance is crucial for success in English, each teacher will strictly enforce rules for attendance and make-up work.

GRADE 9: All freshmen must take **ENGLISH 9**

GRADE 10: All sophomores must take **ENGLISH 10**

GRADES 11 and 12: All juniors and seniors must take a full-year of English. Those with an extra interest in English are also encouraged to take additional semester electives in English if their schedules permit. Students in grade 12 may elect to take their required year of English in any of the following configurations:

1. Full year of English 12
2. Full year of Advanced Placement English Literature and Composition
3. Honors level semester courses (British Literature and Novel Study)

NOTE: For placement in: Honors English 9 (194)
Honors English 10 (104)
Honors English 11 (114)

students must meet the following prerequisites:

- Minimum B- report card average in their current Honors level English courses
- Minimum A- report card average in their current CP level English courses
- The recommendation of their current English teacher
- A writing sample may be administered by the department

THE ENGLISH DEPARTMENT CHAIRPERSON MUST APPROVE EXCEPTIONS.

English 9 (194,193)

1.0 credit - year
Level: H (194)
Level: CP (193)

Prerequisite: See NOTE Previous Page

English 9 (194)- (Honors) is for advanced students who have above-average writing and vocabulary skills.

English 9 (193) - (CP) is for students whose language skills are at grade level and/or who need extra help in developing their English skills.

In English 9, students will read novels, stories, plays and poems drawn from a wide variety of sources. Selections include *The Odyssey*, *Romeo and Juliet*, and *Of Mice and Men*. Practice with writing, spelling, vocabulary, reading and grammar skills are emphasized with daily exercises. Reading assignments will be designed to improve comprehension and the ability to understand the characters, plot, and setting that the authors have created.

Writing Lab (130)

Grade: 9

0.5 credit-semester
Level: Multi-level

Students will write ten essays designed to help them master written composition for high school and open responses on the MCAS. The course includes daily journaling, writing vocabulary, and grammar instruction. Students will be following the five-step

writing process of rewriting, drafting, revising, proofreading, and publishing. Students will conference with peers and the instructor in revising and evaluating content.

English 10 (104, 103)

Grade: 10

Prerequisite: See NOTE Previous Page

1.0 credit - year

Level: H (104)

Level: CP (103)

English 104 (Honors) is designed for advanced students who have above-average writing and vocabulary skills.

English 103 (CP) is designed for students whose language skills are at grade level and who need extra help in developing their English skills.

English 10 continues the broad survey of literature established in English 9. Students move on to more advanced readings, such as Shakespeare's *Julius Caesar*, Sophocles' *Antigone*, and novels such as *Fahrenheit 451*, and *To Kill a Mockingbird*. Daily work in mechanics, usage, and grammar is designed to enhance writing ability and poetic techniques and styles are studied in depth. Preparation for the MCAS test is strongly emphasized.

English 11 (114)

Grade: 11

Prerequisite: See NOTE Previous Page

1.0 credit - year

Level: Honors

English 114 focuses on the study of American Literature. This course is designed for advanced students who have demonstrated superior writing and literature analysis skills in previous English courses. Reading assignments are challenging, and students are expected to meet demanding writing standards.

English 11 (113)

Grade: 11

Prerequisite: See NOTE Previous Page

1.0 credit - year

Level: CP

English 113 focuses on the study of American Literature. This course is designed for students whose language skills are at grade level, and for those who need additional help in developing their writing ability and literature comprehension. Reading assignments are selected to increase understanding of literature, and students are expected to continue developing their writing skills.

English 12 (123)

Grade: 12

Prerequisite: See NOTE Previous Page

1.0 credit - year

Level: CP

English 123 focuses on the study of British, World, and American Literature. This course is designed for students whose language skills are at grade level, and for those who need additional help in developing their writing ability and literature comprehension. Reading assignments are selected to increase understanding of literature. Students are expected to continue developing their writing skills, and an emphasis is placed on mechanics, usage, and grammar. Several epic poems, plays, and novels are read.

Writing in the "Real World" (187)

Grades 11-12

Prerequisite: See NOTE Previous Page

0.5 credit - semester

Level: CP

This course will emphasize the kind of writing students will likely see in a variety of work settings and in their personal lives, and is appropriate for students planning on college

or the working world after graduation. Writing skills in the following forms will be emphasized: resumes, cover letters, business letters, emails, reports, note taking, presentations, applications, and press releases. Public speaking is also emphasized.

Theater Arts I (142) Grades: 11-12	0.5 credit – fall semester Level: CP
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Students learn the necessary skills to perform, including pantomime, voice control, stage movement, “method” acting, directing and writing scripts. The class is performance based, and requires memorization of scenes, maintaining a journal, and writing an original script, as well as the study of existing plays.

Theater Arts II (151) Grade: 12	0.5 credit -spring semester Level: CP
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Prerequisite: B+ in Theater Arts I and recommendation of teacher

Seniors who had earned at least a B+ average in Theater Arts I and received the recommendation of the teacher may opt to take this class, which meets concurrently with T.A. I. Students will be required to participate in all activities, acting as coaches. The class will also require students to write, produce, and direct a short play that Theater Arts I actors will perform.

Advanced Placement Language & Composition (137) Grades: 11-12	1.0 credit - year Level: AP
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AP Language engages students in becoming skilled readers in prose written in a variety of periods, disciplines, and rhetorical contexts and in becoming skilled writers who compose for a variety of purposes. The course often allows for students to write in several forms- narrative, exploratory, expository, and argumentative, and on many different subjects, from personal experiences to public policies and popular culture. This course will culminate in the Advanced Placement Language and Composition exam in the spring.

Advanced Placement Literature and Composition (136) Grades: 11-12	1.0 credit – year Level: AP
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AP Literature is a college level course for dedicated, motivated students who can handle lengthy reading assignments and advanced writing assignments. The class engages students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students consider a work’s structure, style, and themes as well as smaller scale elements, such as the use of figurative language, imagery, symbolism, and tone. The class involves reading novels, short fiction, poetry, and drama throughout the year. Students are required to take the AP exam in the spring.

Novel Study (154) Grades: 11-12	0.5 credit semester Level: H
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Students will be required to read, analyze, discuss and write about a varied selection of novels. While the selected novels may vary slightly from year to year, a sampling includes Mary Shelley’s Frankenstein, Orwell’s 1984, and Martel’s Life of Pi. Students

will engage in some college level assignments, independent reading, projects and presentations.

British Literature (157)

Grades: 11-12

0.5 credit-semester

Level: H

Students will study the history of the English language, from the Anglo-Saxon Beowulf to Shakespeare. Readings will include The Canterbury Tales, selections from the Arthurian legend, poems, and short plays. Essay writing, analytic responses, and journaling are all a part of the course.

FAMILY AND CONSUMER SCIENCES

In our changing society, young adults are making more decisions about their lives than ever before. The Family and Consumer Sciences Department is designed to provide students with information that will help them make decisions to gain healthy and satisfying control over their personal and family lives, now and in the future. The aim of all courses is to help students learn how to transfer knowledge into the ability to reason, the mastery of disciplines and the functional skill of problem solving.

The discipline of Family and Consumer Sciences deals with the concept of human development, interpersonal relationships, values, management and hands-on experiences that contribute to the improvement of personal, home, and community life. The American Association of Family and Consumer Sciences view these concepts as interrelated. The department provides an outlet for special talents. Emphasis is placed on reinforcing student self-worth, as the student becomes a contributing member of the high school and society.

The program offerings will satisfy the need of the student who wants to acquire skills in food selection, preparation and service, and build positive relationships with friends, family and children. Courses have direct application for the student interested in a professional or paraprofessional career in childcare, psychology, education, culinary arts, food science technology, public health nutrition, family counseling, and social work.

Independent/Family Living (796) Grades: 11-12	0.5 credit - semester Level: Multi Level
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This course helps students prepare for their role as confident and responsible adults. Students will acquire management techniques needed for life after high school. Emphasis will be placed on career selection in relation to personal interests, aptitudes, range of money and goals. Students will plan a living environment, including furnishings, their living space, and managing a monthly budget. Topics that may be covered: self-understanding, relationship building, effective communication skills, managing time and money, consumer skills, conflict resolution, decision-making skills, stress management, and aroma therapy.

Child Development (782) Grades: 10-12	0.5 credit - semester Level: Multi Level
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The development of children from conception to twelve years old will be explored. Physical, emotional, intellectual, social and psychological growth of the child will be covered. Emphasis will be on the reality and responsibility of parenting.

Integrative Nutrition (757) Grades 9-12	1.0 credit – year Level: Multi level
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This course is designed to apply scientific concepts to healthy choices. Students will explore food safety and sanitation techniques consistent with the Department of Public Health guidelines and prepare assorted recipes utilizing common cooking terms and methods. An overview of digestion, absorption and metabolism of nutrients will lay the

foundation for applying the science of nutrition to one's life. Students will be able to determine nutrient needs and plan a healthy diet at various stages of life. Alternative methods of wellness will also be explored. Cooperative learning, team teaching and lab sessions are an integral part of the course. Balancing personal needs, family needs and work responsibilities will be introduced via simple stress management techniques.

ProStart/Culinary Arts I (775)

1.0 credit-year

Grades: 10-12

Level: Multi Level

Prerequisite: C or better in Integrative Nutrition and permission of the teacher

This course is based on national curriculum endorsed by the Massachusetts Restaurant Association (MRA). The program combines classroom work with internships with local restaurants to provide training for students wishing to pursue a career in the food preparation industry. Students completing both courses in the ProStart curriculum and passing a proficiency test will receive a national certificate of mastery and will qualify for scholarships to colleges and universities in the hospitality industry. Topics in this course include nutrition, safety, customer relations, understanding the food service business, and customer relations. In addition students will receive instruction on the preparation of breakfast foods, sandwiches, garnishes, and working with food service equipment.

Pro-Start/Culinary Arts II (776)

1.0 credit - year

Grades: 10-12

Level: Multi Level

Prerequisite: B or better in Pro-Start/Culinary Arts I and permission of the teacher

The second half of the Pro-Start curriculum will focus on topics such as purchasing, inventory control, accounting practices, menu planning, and the history of the foodservice industry. In addition students will receive instruction in the preparation of meat, poultry, seafood, stocks, soups, sauces, and desserts.

WORLD LANGUAGES DEPARTMENT

Most four-year colleges and universities and all Massachusetts state colleges require a minimum of two years of the same foreign language as an entrance requirement. For a student to use a foreign language comfortably, three or more years are recommended. Courses are designed and paced so that students will have a successful language experience speaking, listening, reading and writing in French or Spanish while they learn about the culture surrounding each language. In today's world, being able to communicate in distant languages is a plus no matter what career you are choosing.

French I (653)
Grades: 9-12

1.0 credit - year
Level: CP

French I will introduce basic vocabulary and grammatical structure. Students learn vocabulary for use in practical conversation in daily activities related to introductions, the home, family, community, travel, money, foods, telling time, and weather. The course is designed to introduce students to the cultures of French speaking countries. A wide variety of cultural differences are presented in order to enable the student to better appreciate the international complexities of the modern world.

French II (652)
Grades 9-12

1.0 credit - year
Level: CP

Prerequisite: A minimum of a C in French I or teacher approval

French II is a continuation of the French I course with constant attention to both aural and oral proficiency, reading, writing and thinking in French. Students will become more acquainted with the experiences and activities of French students through further analysis of Francophone culture. Additional grammatical structures and vocabulary are reviewed and introduced, resulting in greater fluidity and aural comprehension.

French III (634)
Grades: 10-12

1.0 credit - year
Level: Honors

Prerequisite: C or better in French II

French III is an advanced course which continues the progressive development of the four skills of language with emphasis on more advanced grammar, increased vocabulary, and idiomatic expressions. There is a continued study of verb tenses so that the student may develop facility in comprehension and practical use of the language. The students will continue broadening their familiarity with the French-speaking world through readings which not only will develop their reading ability but will also better their writing skills, promote conversation, and further their understanding of the issues and events which have shaped the modern French-speaking world. The course is an excellent preparation for French IV, where French is the preferred mode of communication between teacher and student.

French IV (644)
Grades: 11-12

1.0 credit - year
Level: Honors

Prerequisite: B- in French III or teacher approval

French IV is a continuation of French III with emphasis on more advanced themes with greater opportunity for interactive activities and in-depth study of Francophone history and culture. In this course, students will be exposed to extracts of literature of the Francophone world, with the primary goal of comprehension of authentic texts with implicit goals of deeper acquisition of lexical and grammatical structures. Students will be encouraged to use the target language as often as possible to express their thoughts, both orally and in writing.

Spanish I (683) Grades: 9-12	1.0 credit – year Level: CP
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Spanish I will introduce basic vocabulary and grammatical structure. Students learn vocabulary for use in practical conversation in daily activities related to introductions, the home, family, community, travel, money, sports, foods, telling time, and weather. The course is designed to introduce students to the cultures of Hispanic countries and regions of the USA. A wide variety of cultural differences are presented in order to enable the student to better appreciate the international complexities of the modern world.

Spanish II (692) Grades 9-12	1.0 credit - year Level: CP
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Prerequisite: C or better in Spanish I

The initial intent in Spanish 2 is to re-acquaint and review basic grammar and vocabulary studied in Spanish 1. This review is designed to provide a basis for entry into more advanced and varied conversational situations relevant to the student's own lives and interests. The student is introduced to grammatical structures necessary to communicate in extended conversation. Spanish 2 continues to acquaint students with the cultures of Hispanic countries and regions.

Spanish III (604) Grades 10-12	1.0 credit - year Level: Honors
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Prerequisite: C or better in Spanish II

Spanish III is designed to provide a continuing, progressive review, leading to the introduction of the most advanced grammar and comprehensive vocabulary. Classroom instruction pulls together all elements of the introductory and more advanced grammatical structures to assure a comfortable mastery of Spanish. Students should be able to function in all normal speaking and writing situations with accuracy and ease of expression. Spanish III prepares the student for the transition to Spanish 4 and Spanish 5_in which only Spanish is used by the students and teacher for communication.

Spanish IV/V (614/624) Grades 11-12	1.0 credit - year Level: Honors
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Prerequisite: Teacher Approval

Spanish IV and Spanish V are the highest Spanish course levels offered at Quaboag. The courses will: 1) Develop the student's confidence in his/her ability to respond in Spanish in a structured, classroom setting; 2) Increase student's ability to recognize and appreciate literacy techniques and figurative language through the use of Spanish language literature; 3) Provide an overview for the important social and cultural issues

throughout the history of the Spanish-speaking world. The course is conducted primarily in Spanish. The readings selected for the class rotate every other year; one year, classic literature will be considered, and in the next year, literature from 1898 to the present. These courses serve as rigorous, highly advanced studies which will prepare students very well for college-level work in the Spanish language. By focusing on the skills necessary for critical reading and interpretation of literature, the course will also prepare students for more advanced work in English language classes as well.

Latin I (616)

Grades 9-12

1.0 credit - year

Level: CP

Prerequisite: C or better in Reading or English

Latin 1 is designed to introduce the student to the culture and elementary principles of the language of the Romans. Vocabulary building, basic grammatical functions, translation skills, and Roman culture form the nucleus of the course. Special consideration will be given to analysis of English words that are formed from Latin roots. As Latin is the basis for much of our English vocabulary, as well as being the parent language to the other language offerings at Quaboag (Spanish and French), it is expected that the student's abilities in these other areas will increase as a result of studying Latin. To that end, it is suggested that the student take this course early in their high school careers, in conjunction with an English class and a Spanish or French offering. **It should also be noted that many colleges do not accept Latin as a foreign language for admission; therefore, the study of another foreign language should be undertaken simultaneously to satisfy such requirements.** While open to everyone, any student considering a career in the sciences, medicine, or law should consider electing to take Latin.

Latin II (618)

Grades 9-12

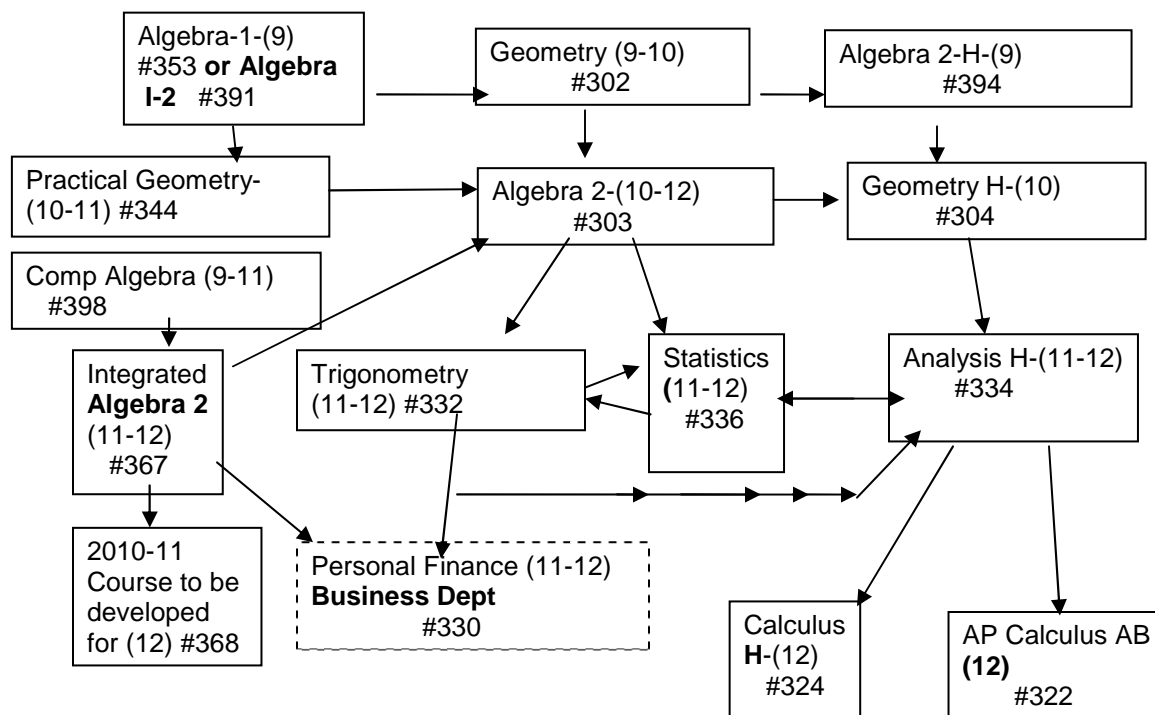
1.0 credit – year

Level: CP

Prerequisite: C or better in Latin I

Latin 2 is a continuation to the study of the Latin language introduced in Latin 1. Further emphasis is given to building vocabulary acquisition and translation skills, with additional cultural highlights of Roman life introduced. More advanced and complex grammatical aspects are studied which will enable the student to reach greater levels of proficiency in reading and translating Latin, as well as increasing their ability in English classes and in the other Foreign Language offerings at Quaboag.

MATHEMATICS DEPARTMENT



Grade level in parentheses (9)

Students cannot go from Analysis to Trigonometry since Analysis covers Trig.

Students can go from Trig to Analysis since new material will be covered.

The goal of the Mathematics Department is to encourage and enable all students to:

- value mathematics
- gain confidence in their own mathematical ability
- become mathematical problem solvers
- communicate mathematically
- reason mathematically

To accomplish this, the curriculum must expand students' knowledge of numbers, computation, estimation, and measurement. To be successful in a technological world, students need to understand the basic concepts of algebra and geometry. In addition, students should be able to gather, organize, display and interpret data and in so doing, recognize patterns when they occur.

A broad and varied series of courses in the major areas of Mathematics is offered with the intent of not only challenging the intellectually curious but also providing a good background of under-standing for all. To facilitate proper selection, courses have been grouped by level of sophistication.

All the Mathematics courses are sequential. The student must secure department approval before proceeding to the next level. Teacher recommendations will be based on prerequisites and determined in relation to criteria shown to be necessary for success at the next level. Therefore, the student's teacher must initial the registration form. Students who may wish to move from one sequence of courses to another must demonstrate a "likelihood of success" in the desired change. This must be arranged with the department chairperson and will include taking an exam. Any student not presently

enrolled in a Mathematics course must have his/her registration form approved by the Department Head.

Please Note: In most courses offered by the Mathematics Department, students are expected to have a scientific calculator for their use in school and at home. Graphing calculators are used regularly in all courses from Algebra II on. As students begin to replace the scientific calculators used in middle school, they may want to purchase a graphing calculator.

Algebra I-2 (Part 2) (391)	1.0 credit - year
Grades: 9-12	Level: Multi-level
Prerequisite: C– or better in Algebra I-1	

Algebra I-2 will cover all of the material included in the second half of a typical Algebra I course but cover the material over a FULL YEAR.

Exponents, radicals, absolute value and solving quadratic equations will be expanded. Students will move from solving one variable equations to solving two variable equations. A study of quadratics and the factoring methods is included. This course is designed as a continuation of Algebra I-1 and will allow students a second year to absorb the critical vocabulary and skills of Algebra I before progressing to Geometry and Algebra 2.

Algebra I (353)	1.0 credit - year
Grade: 9	Level: CP
Prerequisite: Students who have not successfully taken or mastered an Algebra course by 9th grade should take this class.	

This course is concerned with helping you understand the basic structure of the real number-system and to recognize the techniques of algebra as reflections of this system. Students should take this course if they have not been successful in mastering the concepts of Algebra or have not had an opportunity to take Algebra in middle school. This is the basic course of study for all advanced mathematics and science courses and should be mastered before progressing to Geometry and Algebra II. This course is comprehensive and will cover single variable and two variable equations, linear and quadratic functions as well as exponents and radicals, inequalities and absolute values and the properties of algebra.

Practical Geometry (344)	1.0 credit - year
Grades: 10-11	Level: Multi-level
Prerequisite: Pass Algebra 1 but did not qualified to go to Geometry (302)	

This course will approach the concepts of triangles, angles, congruency, polygons, areas, ratios and proportions from an inductive point of view rather than a deductive perspective. Formal proofs will be de-emphasized and visual and practical approaches will be emphasized. This course will review some topics from algebra as they apply to Geometry. This course is not intended as a four year college preparatory course but will provide a solid foundation on a technical level.

Geometry (302) 1.0 credit - year
Grades: 9-10 Level: CP
Prerequisite: C or better in Algebra I or B or better in Algebra I-2

Geometry is taught as an extension of the basic principles of arithmetic and algebra through integration of these principles with those of geometry. Spatial skills are explored and creativity encouraged. Emphasis is on applications of theorems and completion of proofs.

Geometry H (304) 1.0 credit - year
Grade: 10 Level: Honors
Prerequisite: B- or better in Algebra II, B- or better in final exam and permission of Department Chairperson or written waiver signed by parent.

The content is similar to Geometry (302). The rigor of proof is emphasized, and you are expected to use deductive and inductive reasoning to complete proofs from scratch.

Algebra II (303) 1.0 credit - year
Grades: 10-12 Level: CP
Prerequisite: C or better in Geometry

This course is a continuation of Algebra I. You are introduced to complex numbers and logarithms. Throughout the course, theory and proofs become increasingly important.

Algebra II–9 (394) 1.0 credit - year
Grade: 9 Level: Honors
Prerequisite: B- or better in Algebra I-8, B- or better in final exam and permission of Department Chairperson or written waiver signed by parent.

A more in-depth study of material studied in Algebra 1.

Integrated Algebra II (367) 1.0 credit – year
Grades: 11-12 Level: CP
Prerequisite: Appropriate for students who have passed Practical Geometry

This course is a combination of the concepts of Algebra I and Geometry extended into the ideas of Algebra 2. The course is a visual approach to Algebra 2 concepts and the proofs are from an inductive point of view rather than deductive. This is not intended as a college preparatory class but the skills reviewed and emphasized will allow students to enter a community college with a solid background.

Trigonometry & Analytical Geometry (332) 1.0 credit - year
Grades: 11-12 Level: CP
Prerequisite: C or better in Algebra II

The course will provide a basic foundation for advanced mathematics and at the same time develop depth of knowledge of mathematical concepts. Topics covered include trigonometric functions, identities, and equations along with real world applications to problems. Topics covered in analytical geometry include graphing of given equations, and deriving equations from graphs and related data. Also included is the study of the conic sections and polar equations. Determinants are studied as time allows.

Analysis H (334)

Grade: 11-12

1.0 credit - year

Level: Honors

Prerequisite: B- or better in Geometry, B- or better in final exam and permission of Department Chairperson or written waiver signed by parent.

Trigonometry is studied completely and is followed by a study of fields, logic, vectors, analytic geometry, logarithms, matrices and determinants. Students who have completed Trigonometry and Analytic Geometry in grade 11 may enroll in Analysis in grade 12.

Introduction to Calculus (324)

Grades: 11-12

1.0 credit - year

Level: Honors

Prerequisite: B- or better in Analysis, B- or better on final exam and permission of department chairperson or written waiver signed by parent.

Calculus is a college level course offered to qualified seniors. Included in this course will be the study of limits, differential calculus of algebraic functions, study of anti-derivatives, integral calculus of algebraic functions, applications of differential calculus, and applications of integral calculus as time permits. Those who take the Advanced Placement Calculus examination may be granted advanced standing in their college (but not necessarily earn college credit). Extra materials will be provided to those students choosing to prepare for the AP exam. Cost of the AP Calculus exam is the responsibility of the student.

Advanced Placement Calculus AB (322)

Grades: 11-12

1.0 credit - year

Level: AP

Prerequisite: B- or better in Analysis, B- or better in final exam and Department Chairperson's permission or written waiver signed by parent.

Calculus AB is a course in single-variable calculus that includes techniques and applications of the derivative, techniques and applications of the definite integral, and the Fundamental Theorem of Calculus. It is equivalent to at least a semester of calculus at most colleges and universities, perhaps to a year of calculus at some. Algebraic, numerical, and graphical representations are emphasized throughout the course.

Personal Finance (330)

Grades: 11-12

1.0 credit - year

Level: Multi-level

What would you do with \$1 million? Spend it? Save it? Buy a Porsche, travel, shop 'til you drop, give it to charity? You will earn over \$1 million in your lifetime and you can choose to do whatever you want with it. Where will it go? In Personal Finance, you will learn about budgeting, the value of money, and how to purchase a car and insurance. You will also learn to set short, medium, and long-term financial goals, shop for the best financial institution, invest your hard-earned money, and much more! Start now using your allowance or your part-time job to prepare for the future. Learn how to have all the money you need today and tomorrow. This class will help every student become wise money managers. Several projects will be explored including the development of stock market portfolios and figuring out how to "Make Ends Meet".

Statistics (336)

Grades: 11-12

Prerequisite: C or better in Algebra II

1.0 credit - year

Level: CP

The use of statistics to solve real world problems using data analysis, standard deviation, and other techniques will be covered. Statistics is a useful course that has many applications in further studies in many fields such as education, psychology, science, and marketing. A graphing calculator will drastically reduce the time for the computations in this class. It is highly suggested that a student have their own calculator. The teacher will use a TI-83 plus calculator.

Comprehensive Algebra – (398)

1.0 credit – full year

Grades: 10-11

Comp Algebra is designed to reinforce present knowledge, give new perspectives on old material and teach good study and test taking skills. Students will be given a comprehensive overview of the connections between Geometry and Algebra and will learn new concepts in order to fill in gaps in student's knowledge base while expanding those new concepts to include perspectives and approaches. This class uses collaboration to build student skills and confidence. Students in 10th grade who are identified as needing intervention to bring them up to grade level in mathematics as well as 11th grade students who have failed the MCAS and wish to prepare for the re-test should take this course.

MUSIC DEPARTMENT

The music department offers programs for both beginning and experienced students. These programs offer students instruction in performing, using, and understanding music.

Wind Ensemble (877)

Grades: 9-12

1.0 credit-year

Level: Multi-level

Prerequisite: Students should have at least one year of experience playing an instrument and have the permission of the instructor.

This high school wind ensemble is open to any student in grades 9-12 who wishes to play a band or percussion instrument. Students wishing to learn a new instrument or have little performance experience with instrumental ensembles should elect Concert Band. Literature will be drawn from standard high school band repertoire and include a wide variety of musical styles. Rehearsals focus on technical development, tone production, intonation, musical terminology and ensemble playing. Musical development is reinforced through individual instruction and daily practice. Participation in several performances each year, including festivals and competitions as well as school concerts and various sport band performances is required.

Concert Band (830)

Grades: 7-12

1.0 credit-year

Level: Multi-level

This performing ensemble is open to any student in the middle/high school who wishes to play a band or percussion instrument. Rehearsals focus on technical development, tone production, intonation, musical terminology and ensemble playing. Musical development is reinforced through individual instruction and daily practice. Students will reinforce and refine the skills learned in elementary school and continue to work towards musical proficiency. Attendance at all school and festival performance is required.

Quaboag Singers (879)

Grades: 9-12

1.0 credit - year

Level: Multi-level

This performing ensemble is open to any student in grades 9-12 who enjoys singing. Literature is drawn from a wide variety of musical styles including musical theater, world, folk, popular, and traditional choral repertoire. Rehearsals focus on technical development, tone production, breath support, intonation, musical terminology and literacy, vocal technique, solo and ensemble singing, and sight-reading. The singers perform for various assemblies, festivals, competitions, and school concerts.

Jazz Band (865)

Grades: 9-12

After school

0.5 credit - year

Level: Honors

The high school jazz band is open by audition to any student in grades 9-12 who is interested in performing traditional Jazz repertoire, including Swing, Big Band, Funk, Fusion, and Latin music. Instrument technique, ensemble rehearsals, and listening are all components of the course. This ensemble meets after school from mid-September

through June and attendance is mandatory at all rehearsals. If a student misses more than 3 rehearsals, they may be dropped from the ensemble. Attendance is expected at all performances including festivals, competitions, and school concerts and assemblies.

Select Choir (866)

Grades: 9-12

After school

0.5 credit - year

Level: Honors

The Honors Select Choir is open by audition to any student in grades 7-12 who is interested in performing more demanding vocal literature. Music is drawn from the acappella repertoire of the Renaissance to music of the present day including pop and jazz. Rehearsals focus on blend, balance, and group dynamics. Outside preparation of material is expected. This ensemble meets after school from Mid-September through June and attendance is mandatory at all rehearsals. If a student misses more than 3 rehearsals, they may be dropped from the ensemble. Attendance is expected at all performances including festivals, competitions, and school concerts and assemblies.

History of Rock and Roll (876)

Grades: 11-12

0.5 credit - semester

Level: Multi-level

A general and introductory course offering students an overview of the diverse popular music styles of the late nineteenth, twentieth, and twenty-first centuries—from early “Blues” through current Rock and Pop trends. No prior musical training or knowledge is necessary. Students will become familiar with the basics of reading music in order to further their understanding of Jazz and Rock music. The course will include a great deal of listening to analyze and compare the many music styles covered. Discussions will include the social, political, and economic forces that have influenced popular music throughout its evolution.

Beginning Guitar (874)

Grades: 9-12

0.5 credit - semester

Level: Multi-level

This class is designed for the absolute beginning guitarist. No prior musical experience or knowledge is necessary. Reading music in standard notation, techniques, sound reinforcement, and ensemble playing will be covered. All students should have access to their own guitar, preferably acoustic. The primary focus of the class is music literacy and skill development.

Sound Recording & Music Technology (875)

Grades 10-12

0.5 credit - semester

Level: Multi-level

Prerequisite: Students must have taken at least one music class and received a grade of “B” or better or have the permission of the teacher.

This is an introductory course offering “hands on” experience in the fields of sound recording, electronic music, and composition. No prior musical experience or knowledge is necessary. Students will learn how to use and manipulate sound through the use of tape and computer programs. Topics will include, but are not limited to, MIDI, analog and digital recording, microphone and P.A. setup and use, and sound creation and manipulation. Students will be graded on the projects, materials and techniques introduced as well as studio demeanor.

Music Theory (862)

Grades: 11-12

1.0 credit - year

Level: Multi-level

Prerequisite: Students must have taken at least one music class and received a grade of "B" or better or have the permission of the teacher.

This course pursues the advanced study of theory, harmony, form and analysis, composition, ear training, solfege, and music history. Students will develop the ability to identify musical pitches and transcribe music through melodic and harmonic dictation. The course provides substantial preparation for a music theory/history course in college.

PHYSICAL EDUCATION / HEALTH DEPARTMENT

There is a critical link between the health-related behaviors youth choose to adopt today and the lives they lead in adulthood. Physical inactivity, tobacco, alcohol and other drug use, sexual behaviors, and unhealthy dietary habits place young people at a significantly increased risk for serious health problems, both now and in the future.

The Physical Education/Health program provides students with the opportunity to:

- Demonstrate and practice a variety of advanced sport-specific skills
- Monitor and maintain a health enhancing level of physical fitness
- Practice self-management skills that lead to adopting a healthy lifestyle
- Demonstrate the ability to communicate effectively, to view learning as a lifetime process in which problem-solving skills are imperative

Health (949)

Grade: 10

0.5 credit - semester

Graduation Requirement

Students in Grade 10 Health will continue to refine their knowledge of many topics introduced in the Middle School Health Curriculum. Material presented in age appropriate, sensitive style with many lessons that are project based. Time is spent addressing issues that are often "hot button" topics for our students as they search to expand their social experiences and move toward becoming productive members of our society. Topics include: substance use/abuse and treatment, violence prevention, interpersonal relationships (including intimacy and sound decision making with respect to sexual activity), reproduction and nutrition. For parents who feel portions of this material may not be appropriate for their child, Quaboag offers an opt-out option for segments of this class.

Project Adventure (955)

Grade: 9

0.5 credit - semester

Graduation Requirement

How does a group of individuals crossing an imaginary pit of poisonous peanut butter play prominently in public education? It is through scenarios such as this that students can effectively develop important personal skills. These skills include: effective communication, problem solving, teamwork, cooperation, as well as dealing with success and failure. The beauty of this program is that it is presented in an enjoyable, yet intense learning experience. Students will gain a greater understanding of their own personal strengths and capabilities. Issues relating to trust and self-confidence are dealt with through the philosophy of "Challenge by Choice", coupled with encouragement to step outside of one's comfort zone, to try new things.

Sports Studies/Physical Education (995)

Grade: 10

0.5 credit - semester

Graduation Requirement

The student will continue in both team and individual sports with a concentration in developing a greater degree of knowledge and skill. Activities are selected to provide an understanding of good physical health and well being through daily activity. The emphasis is on having the student acquire skills and perspective about each sport studied that will stay with them as a permanent part of their life interests.

Sports Medicine (996)

Grades: 11-12

1.0 credit - year

Level: CP

The QRHS Sports Medicine program is part of an extensive health career education program. The course provides students with academic/practical skills for athletic training, medicine, fitness specialist, physical therapy or other related careers. This course will focus on three areas of study; sports injuries and care, fitness training, and health careers. Students participating will become eligible to receive the American Red Cross Sports Safety Training Certification. This course requires students to work as an intern in a sports medicine field. They will serve as assistants to coaches, operate the weight room, or assist the nurse, physical education, or physical therapist.

Sports Administration (994)

Grades: 11-12

1.0 credit - year

Level: CP

The sports administration course At QRHS is designed to provide students with the opportunity to develop expertise in business management with an orientation toward the world of high school sports. The operations of sport programs have become more sophisticated and complex. People assigned to the responsibility for the management of sport programs and facilities must become familiar with the process and also be effective as a manager in business. Students will develop an understanding of the governance structures in sport; they will develop an athletic budget, and they will create a public relations program using the media and other available resources. All students participating in course will be required to serve as an intern in the athletic department.

SCIENCE DEPARTMENT

Quaboag Regional Middle/High School offers a well-balanced science program to all students. Our primary goal is two fold:

1. To establish scientific literacy so that students, upon entering the work force, can make intelligent decisions regarding science-based issues.
2. To provide a strong foundation for those students who plan to attend college. Each course is structured to emphasize the process of science as a way of thinking and doing. The laboratory experience is a way by which special skills are developed to achieve this aim. With emphasis placed on the laboratory, students develop both an understanding of and an appreciation for inquiry and scientific methodology.

Note: As classes in elective courses reach maximum enrollment, seniors will have first priority, then juniors, then sophomores.

Honors Earth and Space Science (494)	1.0 credit – full year
Grade: 9	Level: Honors
Prerequisite: B or better in 8th grade science <u>and</u> recommendation by 8th grade Science teacher.	

This course is a thorough exploration of the Earth's various systems as they affect the earth's surface and those who inhabit it. Rigorous investigation into the major processes at work in, on and around the Earth and within the universe will be completed using a variety of educational approaches including use of up-to-the-minute data, Internet and library research, extensive in-depth discussion and classroom activities. Topics included in geology, astronomy, oceanography and meteorology are extensively studied, with strong emphasis on observation and correlation of the reciprocal effects of Earth's interior and exterior systems. Phenomena associated with the evolution of the universe will be studied as means to understanding the history of the universe as well as the latest in cosmological theory. This is a course for students considering education beyond high school.

Earth and Space Science (493)	1.0 credit – full year
Grade: 9	Level: CP

In this course, the major processes at work in, on and around the Earth and within the universe will be studied to gain an understanding of the complexity and importance of their relationships. Themes included in geology, astronomy, oceanography and meteorology are covered, with emphasis on observation and correlation of the mutual effects of Earth's interior and exterior systems. Phenomena associated with the evolution of the universe will also be discussed as a means to understanding the earth's place in space.

Engineering The Future (496)	1.0 credit
Grade: 9	Level: CP

This is a full-year introductory engineering course that provides a strong foundation in physics and offers students the opportunity to explore the social, historical, and environmental contexts of emerging technologies. The course is designed to build technological literacy and provide students with an understanding of how we are all influenced by technology. This course will prepare students to take the Technology test that can satisfy the Science MCAS requirement.

Honors Biology (404)

Grade: 10

1.0 credit – full year

Level: Honors

Prerequisite: B or better in Earth Science and recommendation of Earth Science teacher

This is a rigorous laboratory course for highly motivated students who anticipate studying science or math beyond the high school level. Critical thinking and problem solving skills will be essential in reaching conclusions into this "inquiry into life". The major emphasis will be on concepts of a cellular and molecular nature of life, emphasizing human systems. Main topics will include biochemistry, cell metabolism, energy processes, homeostasis, genetics, human body regulation and coordination, evolution, biodiversity, ecosystem dynamics, and bioethics. Scientific reasoning and writing is emphasized and students will find rigor in the depth of information covered. Inquiry-based laboratory activities challenge critical thinking and problem solving skills. Students will develop deeper insight into current controversial issues in biology by way of independent and group research projects. Ultimately, the course prepares students for successful completion of the MCAS Biology subject test, one of the tests students may take to satisfy the new Science MCAS requirement.

Biology (403)

Grade: 10

1.0 credit – full year

Level: CP

This laboratory course is an introduction to concepts and methods of biological sciences through class discussion, activities, video, and laboratory investigations. The goal of biology is to provide students with the scientific principles, concepts, and methodologies required to understand molecular and systems biology. The course will concentrate on a more traditional approach to the structure and function of organisms. Students will identify and analyze biochemistry, cell structure and functions, energy transfer, homeostasis, genetics, human body systems, evolution, biodiversity, and ecosystem dynamics. Scientific reasoning and writing is emphasized and students will find challenge in the variety of topics and information covered. Students will develop deeper insight into current issues in biology in independent and group research projects. Ultimately, the course prepares students for successful completion of the MCAS Biology subject area test, a graduation requirement beginning with the Class of 2010.

A. P. Chemistry (445)

Grade: 12

1.0 credit – full year

Level: AP

Prerequisites: B or better in Advanced Chemistry and B or better in Trigonometry -Analytical Geometry OR permission of department chairperson

This Advanced Placement course is intended for highly motivated students who have completed a first year of chemistry and are interested in expanding their knowledge of

the subject. This course is ideal for students who plan to pursue science or mathematics at the college level as it will be taught such that students will be prepared to take the Advanced Placement Chemistry Exam in the spring should they choose to do so. Success in this course will require solid skills in mathematics and problem solving, as well as extensive work in the laboratory. Topics to be covered include nuclear chemistry, thermodynamics, acid-base chemistry, kinetics, equilibrium and electrochemistry. In addition, select topics from the first year chemistry course will be revisited and expanded upon. This course will meet seven periods each week to accommodate laboratory work.

Honors Chemistry (435)

1.0 credit – full year

Grades: 11-12

Level: Honors

Prerequisites: B or better in Algebra II and B or better in Advanced Biology and recommendation of Biology teacher

This rigorous, weighted course is intended for the highly motivated, serious student. Ideally, students who enroll in advanced chemistry should intend to pursue science or mathematics at the college level. Students should be among the top fifteen percent of the mathematics students in the grade, and be able to relate knowledge of mathematics, especially algebra, to the concepts of chemistry. Topics to be covered include states of matter, atomic structure, chemical bonding, quantum mechanics, kinetics, equilibrium, oxidation-reduction, periodicity, stoichiometry, chemical reactions, gas laws and organic chemistry. These topics will be covered at a more advanced level than in chemistry (433).

Chemistry (433)

1.0 credit – full year

Grades: 11-12

Level: CP

Prerequisites: B or better in Algebra I and C or better in Biology.

This course covers chemistry topics through the use of mathematics and problem solving as well as laboratory experiments. This course will allow students to meet college admission requirements for a laboratory science. This is the chemistry course to elect if you do not plan to pursue science or mathematics at the college level. Topics to be covered include states of matter, atomic structure, chemical bonding, periodicity, stoichiometry, chemical reactions, and equilibrium, electrochemistry, kinetics, organic chemistry and gas laws.

Chemistry in the Community (440)

1.0 credit -full year

Grades: 11-12

Level: Multi

Prerequisites: C or better in Algebra I, and a passing grade in Biology OR permission of the chairperson

This course will explore chemistry concepts as they relate to issues facing the modern global community. This course is designed for the student who does not plan to pursue a college degree but would still like to gain a basic understanding of chemistry as it affects his or her everyday life. Topics to be covered include water pollution and purification, petroleum as an energy source, chemistry of the atmosphere, nuclear chemistry, and chemical reactions in industry and chemistry of food. This course will meet five periods each week.

Honors Physics (424) 1.0 credit – full year
Grade: 12 Level: Honors
Prerequisite: B or better in Algebra 2 and currently taking Calculus or Advanced Math, and B or better in Advanced Chemistry, and recommendation of chemistry teacher.

Concepts of motion, mechanics, light and electromagnetism, the atom and nuclear physics form the basic structure of this course. It is highly mathematical and assumes the students are currently taking calculus or advanced math. This course is weighted and therefore, primarily for those students who are planning to major in math or science in college. Only those students who seek a rigorous and challenging physics program should elect it.

Physics (422) 1.0 credit – full year
Grade: 12 Level: CP
Prerequisite: C or better in Algebra I (or in both Algebra IA and IB) and in Geometry.

This is not a weighted course but is intended to cover the topics of physics through the use of mathematics and problem solving as well as lab activities. The level of mathematics used will vary with the student's ability. The concept of motion, mechanics, light, and electromagnetism, the atom, and nuclear physics form the basic structure of the course.

Project Physics (423) 1.0 credit –full year
Grade: 12 Level: Multi
Prerequisites: Passed an Algebra 1 Course and a Geometry course

This course will explore concepts of matter and energy as they relate both to everyday life and to the place of human beings on the planet and in the cosmos. The course designed for the student who is more interested in a hands-on-approach to the study of a science than to the mathematical analysis of its theories. Students who are not going onto a college major in a technical field, but are interested in understanding the physical world around them may elect it. The construction of student-engineered devices will be an important part of the course. Topics to be discussed include machinery, projective launching devices, the International Space Station, sound waves, and musical instruments, power and alternative power sources, electrical circuits and devices, and basic automotive technology.

Anatomy & Physiology (461) 1.0 credit – full year
Grades: 11-12 Level: CP
Prerequisites: C or better in Biology and Chemistry (or concurrent enrollment in Chemistry with permission of teacher)

This laboratory course is intended to provide students who have an interest in life science the opportunity to explore human body systems in great detail. Major emphasis will be placed on the study of the structure and function of all human body systems, including systems of support, movement, coordination, transport, regulation, absorption,

excretion, and reproduction. The interaction of body systems to maintain a healthy, balanced body will be contrasted to the function of body systems under stress, operating with a disorder, dysfunction, or recovering from disease or injury. Lab dissection (virtual or in-class), research projects, and the use of on-line study materials will comprise a majority of the course work. This course provides a solid content base for students aspiring to careers in medicine, emergency response work, body work, physical therapy, and sports training. Additionally, the course is personally valuable for all students because it increases an understanding of diagnosis, cause, and treatment of illness, as described by medical professionals and popular media. While the course is open to all juniors and seniors, most students elect to take the course in their senior year to prepare for future college course work in the medical sciences.

Environmental Science (491) 1.0 credit – full year
Grades: 11-12 Level: CP

Prerequisites: C or better in Earth Science and Biology.

This is an interdisciplinary science course open to all juniors and seniors who have an interest in the real-world application of life sciences. This course provides students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world. Students will identify and analyze natural and man-made environmental problems and examine alternative solutions for resolving and/or preventing environmental problems on a local and global scale. Major emphasis is placed on discovery-oriented learning using hands-on approaches to laboratories and field work of local aquatic and forest ecosystems, natural resources, sustainability, global population growth, climate change and the use of natural resources. Individual and group research activities will comprise a majority of the course work. This course will include indoor and outdoor labs, with extensive use of the outdoor environments around the school.

Astronomy (465) 0.5 credit - semester
Grades: 10-12 Level: CP

Prerequisite: C or better in Earth Science and Algebra 1A, 1B or Algebra 1.

This topic-based seminar course is offered to students interested in probing the universe around them. To wonder, to explore and to discover the origin and means by which our universe operates is the essence of humanity. This course is not meant solely for the student who intends to study science beyond high school, but offers a balance of scientific practice with the philosophical challenges of appreciating the bigger picture of earth's place in the universe. A mix of discussion, lecture, activities, and self-directed research will challenge and engage students in such topics as the solar system, the earth-moon-sun system, classification of galaxies, constellations, telescopes and astronomical observation, the formation of the universe, the physical laws of astronomy and history of humanity's quest to understand it all. Students should be motivated and capable of self-directed work. Emphasis will be placed on participation in class discussion using topics contributed by students.

Oceanography (475) 0.5 credit - semester
Grades: 10-12 Level: CP

Prerequisite: C or better in Earth Science and Algebra 1A, 1B or Algebra 1.

Each year, human interaction with the oceans increases. The oceans are looked to as significant sources of food, recreation, energy, transportation and resources. As our quest to dominate the planet continues, the effects we have on the ocean must be better understood to avoid irreversible damage. This course will address topics including the history of the human/ocean connection, and the science of ocean physics, geology, biology and chemistry. Although not a lab course, this class will focus on discussion and activities that lend themselves to better comprehension of the earth's interwoven systems, many of which are directly dependent on the health of the global ocean system. Students should be motivated and capable of self-directed work. Emphasis will be placed on participation in class discussion using topics contributed by students.

Geology (497)

Grades: 10-12

0.5 credit – semester

Level: CP

Prerequisite: C or better in Earth Science and Algebra 1A, 1B, or Algebra 1

The study of the solid Earth and the processes that continually remake is physical geology. Studying the rocks to piece together Earth's past is historical geology. This course will examine both types to gain a thorough understanding of the Earth's structure and its systemic; continuous and dynamic evolution. Through investigating the systems at work on the Earth's surface and below it, we can understand the origin of the landscapes we see and the materials that compose them. We can also learn much about the significant changes that have taken place throughout geologic time. There are two main facets to the study of physical geology: constructive forces that build the crust and the destructive forces that tear it down. Volcanoes, earthquakes and plate tectonics create mountain ranges and change the configuration of Earth's surface. The Earth's atmosphere produces erosional forces that rearrange this surface into spectacular and dramatic features. Geologists then apply the basic knowledge of physical geology to existing landscapes to explain how they have formed. This course will continue to investigate the topics in geology that freshman Earth Science introduced.

Biotechnology (451)

Grades: 11-12

1.0 credit – full year

Level: CP

Prerequisite: For rising juniors, B or better in Biology, recommendation of biology teacher, and concurrent enrollment in Chemistry. For rising seniors, B or better in Biology and Chemistry and recommendation of both Biology and Chemistry teachers.

This is a rigorous laboratory course for highly motivated students who have an interest in lab investigations and the biotechnology industry. This course combines molecular biology with practical applications. Biotechnology is the use of microorganisms and enzymes to produce certain drugs, hormones, and genetically altered foods and organisms. Biotechnology includes DNA analysis in the medical, agricultural, environmental, and forensics fields. Massachusetts has the highest concentration of biotechnology companies in the world. Students will learn how cells can be genetically engineered to produce life-saving drugs. Students will explore the molecular basis of genetic disorders such as sickle-cell anemia and electrophoresis as a diagnostic tool to differentiate sickle cell hemoglobin from normal hemoglobin. Critical thinking and problem solving skills will be essential in achieving success in this cutting edge field. Main topics will include DNA structure, protein synthesis, genetics, genetic engineering, gene splicing, transformation, and electrophoresis, the use of biotechnology for the

forensic, medical, and agricultural fields, bioethical debates, and careers in biotechnology. Students will develop deeper insight into current controversial issues in biotechnology by way of independent and group research projects. Ultimately, the course provides students with an insight into the field of biotechnology and possible career paths.

SOCIAL STUDIES DEPARTMENT

Social Studies deals with the study of people and the social world – the human experience. The core of social studies is **knowledge** about the human experience, **skills** that help students understand more about themselves and society, and **attitudes** that help students participate more effectively in their social interactions. Social Studies students study the past, but they also examine the present, and consider the future. Quaboag Regional offers students a balanced program of Social Studies education. Underlying the Social Studies curriculum are two major goals:

To prepare students to be effective, concerned, “thinking” citizens
To provide for the personal development of each student

Honors Civics (204)

1.0 credit - year

Grade: 9

Level: Honors

Prerequisite: A “B” average or better in U.S. History I (282) or “A” average in U. S. History I (283), and teacher recommendation.

Honors Civics is for highly motivated and disciplined students. Students are expected to go on to AP United States History in grade 10. This course will focus on the basic concepts of democracy. It will provide students with an understanding of the following areas: 1) the origins of American Government including the Constitution, 2) the branches of government and the division of power, 3) the voting and election process, and 4) the influence of the mass media, public opinion and interest groups. An integral part of this offering will be the current issues confronting local communities, our state, and our nation. At the conclusion, students will have a basic understanding of the way their government operates, as well as their rights and responsibilities as a United States citizen.

Civics (203)

1.0 credit – year

Grade: 9

Level: CP

Civics is designed for students who are performing at grade level. This course will focus on the basic concepts of democracy. It will provide students with an understanding of the following areas: 1) the origins of American Government including the Constitution, 2) the branches of government and the division of power, 3) the voting and election process, and 4) the influence of the mass media, public opinion and interest groups. At the conclusion, students will have a basic understanding of the way their government operates, as well as their rights and responsibilities as a United States citizen.

AP United States History I & II (233) (234)

1.0 credit – year

Grades: 10-11

Level: AP

Prerequisite: “A” average in Honors Civics and permission of Department Chairperson

Advanced Placement United States History examines the period beginning with the first European settlement of the New World and ends within the post-1945 period to the present. This college level survey course is designed to provide a comprehensive overview of U.S. History while enabling students to experience intense academic rigor as well as establish the analytical skills and content knowledge necessary to pass the

Advanced Placement Exam. The demanding nature of this course calls for students to invest time and energy in order to display the necessary skills of interpretation, analysis, synthesis, and evaluation. Students who register for this course must take the AP Exam.

United States History II (218)

Grade: 10

1.0 credit - year

Level: CP

United States History is designed for students performing at grade level. Students will be expected to accomplish a number of research assignments and library readings. United States History involves studying political, social, and economic change in the United States from 1877 to the present. Emphasis will be placed on understanding rather than memorization of isolated facts.

Honors World History (244)

Grades: 11-12

1.0 credit - year

Level: Honors

Prerequisite: "A" average or better in United States History II (218) and teacher recommendation

Honors World History is designed for the highly motivated, serious student. Students will be expected to accomplish a number of research assignments and library readings. Students need to possess above average writing, vocabulary, and study skills. Honors World History involves studying the political, social, and economic changes around the world from the Fall of the Roman Empire to the present day post-Cold War era. In addition to the textbook, you will be given pertinent outside reading assignments. You will have the opportunity to work independently and will be expected to think critically.

World History (208)

Grades: 11-12

1.0 credit - year

Level: CP

World History is designed for students who are performing at grade level. World History Survey involves studying the political, social, and economic changes around the world from the Fall of the Roman Empire to the present day post-Cold War era. In addition to the textbook, you will be given pertinent outside reading assignments. You will have the opportunity to work independently and will be expected to think critically.

American Government I & II (227 & 228)

Grade: 11-12

0.5 credit – semester

Level: Honors

Both of these one semester courses are designed to give students a critical perspective on United States politics and government, involving both the study of general concepts used to interpret United States politics and the analysis of specific case studies. The curriculum will be investigated through lecture, discussion, group activities, independent research, and primary source readings.

Students may opt to take only one semester, or both. At the conclusion of the second semester, those students who have taken both semesters will have the opportunity to take the Advanced Placement Examination in the hopes of receiving college credit.

Psychology (222)

Grades: 11-12

1.0 credit – year

Level: CP

The goal of this course is for students to be able to understand the human mind and why people think, act and feel the way that they do. Students will be introduced to the major psychological theorists and theories. Other topics of study will include emotions, identity development, and altered states of consciousness such as hypnosis and meditation. An emphasis will be placed on mental illnesses such as depression, OCD, and personality disorders. Students should be prepared to complete nightly reading and writing assignments as well as several projects throughout the course of the year.

AP Psychology (223)

Grades: 11-12

1.0 credit – year

Level: AP

Prerequisite: Permission of Department Chairperson

Advanced Placement Psychology is a college level survey course designed to provide a comprehensive overview of psychology while enabling students to experience intense academic rigor as well as establish the analytical skills and content knowledge necessary to pass the Advanced Placement exam. The demanding nature of this course calls for students to invest time and energy in order to display the necessary skills of interpretation, analysis, synthesis, and evaluation. Students who register for this course must take the AP exam.

Contemporary Issues (238)

Grades: 11-12

0.5 credit - semester

Level: CP

This course focuses on events happening in the world today. Both international and domestic issues will be covered, including the criminal justice system, the role of the media, and the balance between individual civil liberties and the rights of society as a whole. Other issues will include school violence, the death penalty, global warming, and the debate over gun control laws.

History & Film (219)

Grades: 11-12

0.5 credit – semester

Level: CP

This course is an inter-disciplinary course linking history and the media. Students taking this course will learn to discern fact from the “spin” Hollywood places on both World and American historical events. The course will be broken into sections, each being three to four weeks long. Each section will consist of at least one week of review of the time period. This will consist of lecture, group activities, independent research, and reading. Next, students will critically watch each film, taking notes and participating in group discussion. Finally, students will analyze and critique each film. Students will be required to complete an essay, oral presentation, or other short project on each film and its historical accuracy. Students may focus on an event within the movie or characters in the film. Students will also complete traditional quizzes and tests on the historical events they are studying and the films they are watching. This class will allow students to view popular movies through a critical eye.

American Studies (237)

Grades: 11-12

1.0 credit-year

Level: CP

American Studies will view historical events in the United States from the interdisciplinary perspective of Social Studies and English Language Arts. Students will study the social and political effects of significant historical periods such as the Industrial Revolution, Westward Expansion, the Great Depression, the Vietnam War, the Civil Rights Movement, and US-Foreign Relations. Students will be exposed to a variety of literary tools, such as the historical novel, works of fiction, and journalism. The curriculum will be explored through lecture and discussion, group activities, independent research, and reading. The examination of historical events will be gained not only from a national view, but also from a local and regional perspective. In addition to traditional methods of research, archaeology will be introduced as a means to explore American Studies topics. The course is divided into the following six units: Media Literacy, American Indian, American Industry, American Adaptation, American Structure, and American Conflict/Protest/Reform.

The Sixties (260)

Grades: 11-12

0.5 credit-semester

Level: CP

The Sixties will examine historical events from this turbulent decade with an eye toward its meaning and legacy. Students will study the social, political, and cultural ramifications of the Cold War, the Kennedy presidency, the Civil Rights Movement, the Vietnam War, and the Counterculture. In particular, students will consider how foreign and domestic affairs and political and cultural events intersect in the development of critical issues during this time. The curriculum will be investigated through lecture and discussion, group activities, independent research, and primary source reading materials. An emphasis will be placed on participation in class discussion and individual and group research activities. Ultimately, students will emerge with a more complex and refined view of this much debated decade.



PRACTICE SHEET COURSE SELECTION FORM

Name: _____ **Date:** _____
Year of Graduation: _____ **Grade:** _____

This information is used to enroll you in courses for next year. Also from this information, we decide our staffing, courses offered, and the number of sections offered for each course.

<u>Course #</u>	<u>Course Name</u>	
____ ____ ____	_____	Y__ N__
____ ____ ____	_____	Y__ N__
____ ____ ____ 1	_____	Y__ N__
____ ____ ____	_____	Y__ N__
____ ____ ____	_____	Y__ N__
____ ____ ____	_____	Y__ N__
____ ____ ____	_____	Y__ N__
____ ____ ____	_____	Y__ N__
____ ____ ____	_____	Y__ N__
____ ____ ____	_____	Y__ N__
____ ____ ____	_____	Y__ N__
____ ____ ____	_____	Y__ N__
____ ____ ____	_____	Y__ N__
____ ____ ____	_____	Y__ N__
____ ____ ____	_____	Y__ N__

Student's Signature

Parent/Guardian's Signature Date

Students and/or parents wishing to discuss course selections with a counselor should call the Guidance Department for an appointment. Telephone: 1-(413)-436-5508.