

*Program
of
Studies*

Maynard High
School
2009-2010

Program of Studies

2009-2010

The Maynard Public Schools insures equal access to all educational and employment opportunities regardless of race, color, sex, national origin, religion, sexual orientation or disability in accordance with federal and state laws.

Las escuelas públicas de Maynard aseguran el acceso igual a todos oportunidades educational y trabajo sin tomar en cuenta raza, color, género, origen naciaonal, religión, preferencia sexual, o incapidad obedeciendo las leyes federales y estatales.

As escolas públicas de Maynard asseguram acesso igual para todo educacional e oportunidades de emprego embora raca, cor, sexo, crenca, origem naciaonal, religião, orientação, sexual ou inaptidão conforme leis federais e estatais

Maynard High School
PROGRAM OF STUDIES

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TELEPHONE DIRECTORY

Superintendent, Dr. Mark Masterson	897-2222
Assistant Superintendent/Curriculum Director, Daniel Mayer	897-8251
Director of Student Services, Jill Greene	897-2138
High School Main Office	897-8891
High School Guidance Office	897-0406
High School Athletics Office	897-6168
High School Nurse	897-9374

Principal	Laura Chesson..... Ext 423
Assistant Principal	Michael Testa..... Ext 422
Guidance Counselor	Lisa MacLean..... Ext 440
	Korey Barkley..... Ext 424
	Elizabeth Schuster... Ext 425
School Nurse	Karen LaCure..... Ext 205
Library Media Specialist	Paul Orzech..... Ext 438
WAVM	Mark Minasian.....897-5179

Bell Schedule

7:45 a.m.	A Block Begins
2:00 p.m.	Dismissal
2:05 p.m.	Buses depart MHS

Letter from the Principal

Dear Students and Parents,

The 2009 – 2010 school year will bring many new course offerings and academic opportunities to the students of Maynard High. We have added courses in Mathematics, Social Studies, English, Art, Technology, and Science – many of which are half-year courses, allowing students to add new variety to their schedule. In addition to the new course offerings, we will be offering three new programs for seniors – dual enrollment, dual semester, and the senior project pilot. Details on these new programs can be found inside. We are continuing to offer the Virtual High School program, the Future Teacher's program, and a Work-Study program for eligible seniors.

Please review the options available to our students carefully. As always, the Maynard High School Guidance staff is available for questions or concerns. We look forward to an exciting 2009 – 2010 school year.

Laura S. Chesson, M.Ed.

Principal

Dual Enrollment Option

The Executive Office of Education for the Commonwealth of Massachusetts allows eligible high school students to enroll in college courses at Massachusetts colleges and universities concurrently enrolled in their respective high schools. High school students in their senior year enrolled in public schools in Massachusetts are eligible for the Dual Enrollment Program. Students must have a GPA of 3.0 or better and be recommended by their teacher, guidance counselor, and their principal for participation. Parents/guardians must provide the school with a signed Document of Understanding for their student to participate in the program. Up through the 2008 school year there had been state funding to cover the cost of the tuition for one course at a Massachusetts community college, state college, or state university through a competitive scholarship program. Due to uncertain state budget conditions, it is unlikely that the scholarships available for this program will continue for the 2009 – 2010 school year. However, the option for dual enrollment will be available to students during the next school year if a student's parents wish to assume the cost of the tuition, fees, books, and transportation. The Dual Enrollment Program is not an alternative high school, and therefore, does not supplant advanced placement or other academic courses that may be offered at the high school. Dual Enrollment does not apply to developmental/remedial courses, physical education, fitness or recreational courses. Students who choose this option must be enrolled in a minimum of 5 courses at Maynard High School in addition to the course they are enrolled in at the community college, state college, or state university. Students are required to bring documentation from the instructor of their dual enrollment course that indicates they are progressing at the "C" level or better in their dual enrollment course. In order for the dual enrollment course to be included in the student's MHS transcript they must bring in an official transcript showing the final grade for the dual enrollment course. Forms for the Dual Enrollment option are available through guidance.

Dual Semester Option

In very selective cases a senior is prepared to take a full course load at the college level in the spring of his/her senior year. Students seeking to exercise this option must have a GPA of a minimum of 3.5, an attendance rate of 95% or better, and receive a recommendation from a teacher and their guidance counselor, and approval from their principal. The student's guidance counselor must approve of the courses selected to be taken at the college level. Students are required to bring documentation from the instructor of their dual enrollment course that indicates they are progressing at the "C" level or better in their dual enrollment course. In order for the dual enrollment course to be included in the student's MHS transcript they must bring in an official transcript showing the final grade for the dual enrollment course. Forms for the Dual Enrollment option are available through Guidance.

Maynard High School My Four Year Plan Sheet

Grade 9	Grade 10
English 9	English 10
Math	Math
Science – Introductory Physics	Science
Social Studies	Social Studies
World Language	World Language
Topics in English/Math	Elective
P.E.	Health/Project Adventure
Grade 11	Grade 12
English 11	English 12
Math	Math
Science	Science
Social Studies	Social Studies
World Language	World Language
Elective	Elective
Elective	Elective

All students are required to take seven courses per year. One may be an assigned directed study.

MHS Graduation Requirements

English	4 Years
Mathematics	3 Years
Science	3 Years
Social Studies	3 Years
P.E./Project Adventure	2 Years
Health	1 Year
Computer Technology	½ Year

Massachusetts State College and University Requirements 16 Units (1 Unit = One Year Course)

English	4 Years, 4 Units
Mathematics	3 Years, 3 Units
Science (2 lab sciences)	3 Years, 3 Units
Social Studies	2 Years, 2 Units
World Languages	2 Years, 2 Units
Electives	2 Units

Summary of Changes in the 2009-2010 Program of Studies

Course Adds and Drops

- While the MHS staff makes every effort to schedule students for courses which students have chosen through the course selection process, in order to meet the law requiring students to receive 990 hours of instruction, it may be necessary for a student to be assigned to a course other than the one he/she has chosen. If there is no appropriate alternative, the student will be required to take that course in order to maintain a full schedule.
- Course additions or deletions may only be made if there is alternate appropriate course slot available for the student.
- Full year courses may only be added or dropped during the first two weeks of the school year.
- Half year courses may only be added or dropped during the first six days of each semester.

New Course Offerings and Program Changes

- New courses are being offered in a variety of subject areas. The majority of these course offerings are for junior and senior students only. Please see the individual subject area sections of this handbook for more information on these new courses.
- The directed study option, work-study option, dual enrollment, dual semester, Future Teacher, and senior project pilot are only open to eligible seniors. Please see the Guidance section of this handbook for more information on these new courses.

Program of Studies Requirement Changes

- Students must be scheduled for seven courses each semester.
- There will be a maximum of eight slots open for Science course lab assistants. There will be no teacher assistant positions other than those offered through the Future Teacher's program.
- Independent study courses will only be approved in very limited cases in order to facilitate a student to meet graduation requirements. All independent studies must be approved by the principal.

**Maynard High School
Academic Program of Studies
Grades 9-12**

Maynard High School provides a challenging academic program. The School Committee has set the following requirements for a graduation.

Specific course requirements are as follow:

English	Pass four years including one year each of Freshman English, Sophomore English, Junior English, and Senior English
Mathematics	Pass three years
Science	Pass three years
Social Studies	Pass three years of history, including U.S. and World History
Health	Pass one year
Physical Education	Pass two years, including Project Adventure and/or Physical Education.
Computer Technology	One semester of a computer technology course

Promotion Requirements:	Graduation Requirements:
27.5 credits to become a sophomore	100 credits from academics
55 credits to become a junior	2 credits from physical education
82.5 credits to become a senior	8 credits from other areas
110 credits to graduate	(non academic or academics)

All students are required to take seven courses per year. One may be an assigned directed study.

An academic subject is one taught primarily in the classroom for which students receive 2.5 credits per semester or five credits per academic year.

NOTE: The new Admissions Standards Policy of the Massachusetts State Colleges and University requires a minimum of college preparatory academic units as stated below. These are recommended for many private four-year institutions as well. Students who plan to attend college should earn these sixteen units. The guidance office cannot sign a required verification form without them.

English	4 years
Mathematics, including Algebra I, II and Geometry	3 years
Science, two labs required	3 years
Social Science, U.S. History required	2 years
World Language, three years recommended	2 years
Electives	2 years

All Massachusetts high school students are required to be in structured learning time for 990 hours within 180 school days. This requirements means that all students must be in direct instruction or directed studies each period of every day.

Course Levels

Courses are designated by levels as follows:

- 5 – Advanced Placement courses or equivalent
- 4 – Honors or Advanced College Prep courses
- 3 – College Prep courses (all academic courses are this level or above)
- 2 – Standard (includes activity or performance based level)
- 1 – Basic (non-academic such as physical education)

Courses that count for the Technology Requirement at Maynard High School

- 1. Computer Applications
- 2. Design (CAD)
- 3. AP Courses
- 4. Yearbook
- 5. VHS Courses
- 6. Independent Computer Course
- 7. Radio/TV Course
- 8. Economics
- 9. Creative Writing

English Department

Requirements

Maynard High School students must pass four years of English to meet the Language Arts requirements for graduation. The required English courses are full-year courses during the freshman, sophomore and junior years at the following levels: College Prep (level 3), Advanced College Prep (level 3), and Honors (level 4). Advanced Placement (AP) (level 5) courses are offered as an elective and are to be taken in conjunction with required English course of that year.

All seniors are required to take a full year of English Language Arts courses. Except for *AP Literature and Composition*, courses are one semester long. Courses offered each semester will be determined by the numbers of students who sign up for each course.

Students who fail any required English class freshman, sophomore, or junior year and did not make up the course through summer school must take *Writing Lab* in conjunction with their other required English course. Summer school courses are available for MHS students who need to gain proficiency and pass a required English course in order to proceed in the proper course sequence. In addition, any student deemed to be in danger of failing MCAS ELA test, who has failed the ELA portion of the MCAS, or is eligible for an MCAS ‘Needs Improvement Plan’ will be required to take *Writing Lab*. See course description**

All students are required to complete summer reading assignments. Assignments vary by year, level, and pre-determined course requirements.

Levels

College Prep Courses (Level 3)

Any student may elect to take a college level course. The student will successfully complete a prescribed summer reading assignment prior to the start of the academic year. College courses are comprehensive with an emphasis on a varied reading, writing, grammar, and research curriculum designed for students considering post-graduate study.

Advanced College Prep Courses (Level 3)

Acceptance into an Advanced College Prep level course is determined through completion of a placement test, past classroom performance, previous MCAS ELA scores, and the recommendation of the previous year’s English teacher. Advanced courses are designed for the college bound student with a competent command of reading, grammar, composition, and analytical research skills and a desire to reach honors level courses by junior year.

Honors Courses (Level 4)

Acceptance into an honors level course is determined through completion of a placement test, past classroom performance, previous MCAS ELA scores, and the recommendation of the previous year’s English teacher. Honors level courses are designed for the highly motivated, college bound-student with a demonstrated strong command of reading, grammar, composition, and analytical research skills. Course content emphasizes a rigorous literature

reading schedule and a variety of writing assignments ranging from short essays to lengthy research projects.

Advanced Placement (AP Courses (Level 5))

Admittance to AP level courses requires the successful completion of a comprehensive summer reading assignment prior to the start of the academic year. AP courses are demanding and intensive, the equivalent of an actual full-year, freshman level college course. The course follows the Advanced Placement Program sponsored by the College Board. A course requirement is that students take the national AP exam given in May. Students must pay for the AP exam (currently \$89) by November.

Course Content and Design

English Language Arts courses are designed in alignment with the Massachusetts ELA Curriculum Frameworks and are delivered in an environment that encourages curiosity, personal accountability, student centered learning, and the success of the individual as well as that of the class as a whole.

Course content is based in the literature of various cultures, time periods, and genres. While studying literature, students will build on the traditional ELA reading, writing, listening, and speaking skills through a variety of established best practices that move students from basic understanding and recitation, towards analytical and synthesis skills at every level and in every course.

In addition, student progress and achievement is monitored through the use of a variety of assessments that range from teacher observation to formal tests to individual and group projects. ELA course content, delivery, and assessment models are designed to reach each student, develop their skills, and enhance their ability, interests, and accomplishments.

Course Descriptions

Freshman English (Required) **Full Year** **Levels 3, 4**

Prerequisite: None

Course Description: *Explorations in Writing and Literature* (CP, ADCP, Honors). While writing and the exploration of literature take place throughout the year, this full year course is divided into two semester-long sub courses. Major texts include *Timeless Voices*, *Timeless Themes – Gold Edition* (Prentice-Hall). Supplementary novels include *To Kill a Mockingbird*, *Of Mice and Men*, *Monster*, *The Curious Incident of the Dog in the Night and Night*.

Semester 1: *Writing for Purpose:* structure, organization, grammar, figurative language. There is an emphasis on composition and grammar with a focus on mastering expository writing via process writing which includes brainstorming, drafting, revision, and editing.

Junior English (Required) Full Year Levels 3, 4

Prerequisite: Pass Sophomore English

Course Description: *Survey of Western Literature*. This required course is a continuation of the study of literature, language and writing. Emphasis is placed on completing a survey of Western literature through an exploration of the major themes, genres, and authors of Western literature. In addition students will acquire and practice skills necessary for SAT writing success. Major texts include *Timeless Voices, Timeless Themes – The British Tradition* (Prentice-Hall) Supplementary readings include the works of Shakespeare, Dumas, Hardy, Orwell, Remarque, Tolstoy, and others.

Elective:

***AP Language and Composition* Full Year Level 5**

Students take this course **in addition to** *Survey of Western Literature*

Prerequisite: Pass *AP Language and Composition Part I* with an 86 or better average, the recommendation of the sophomore English teacher, and completion of the AP Summer Reading assignment.

Course Description: This course is a continuation of an in-depth study of prose written in a variety of periods, disciplines, and rhetorical contexts begun in *Pre-AP Language and Composition*. This course is an intensive, in-depth study of prose written in a variety of periods, disciplines, and rhetorical contexts with an emphasis on American and Western literature. Students refine awareness of the interactions of a writer's purpose, audience expectations, the subject, and the way generic conventions and the resources of the language contribute to effectiveness in writing. Major texts include *The Bedford Reader, Timeless Voices, Timeless Themes: the American Experience* (Prentice-Hall). Supplementary readings include the works of Steinbeck, Emerson, Whitman, Dillard, and Capote.

Note: AP students are required to take the AP exam in May. They must pay the exam fee by November or be dropped from the course

Senior English

All seniors are required to take a full year of English in order to graduate. All senior level courses, with the exception of *AP Literature and Composition* are one semester courses and are designed to be taken in any sequence.

***AP Literature and Composition* Full Year Level 5**

Prerequisite: Pass Junior Honors or AP English Language and Composition, recommendation of Junior English teacher, and 86 or better average in level 4 or AP English, and completion of the required Senior AP Summer Reading assignment.

Note: AP students are required to take the AP exam in May. They must pay the exam fee by November or be dropped from the course.

Course Description: This AP course engages students in close, careful reading and critical analysis of imaginative literature of merit. Through this vigorous, real collegiate approach to literature and composition, students deepen their understanding of the ways writers use language to provide meaning and pleasure for their readers. The intensive study of representative works of literary merit from various cultures, genres, and periods involves the

experience, interpretation, and evaluation of literature. The writing component is exploratory, allowing students to discover how and what they think about their reading. Texts include *Timeless Voices*, *Timeless Themes – The British Tradition* (Prentice-Hall), *AP English Literature – The Princeton Review*, and *Sound and Sense: An Introduction to Poetry* (Perrine's). Supplemental readings include *Beowulf*, *Oedipus Rex*, *Antigone*, *Othello*, *Heart of Darkness*, *Lord of the Flies*, and *The Stranger*.

***Classic World Literature to WWI* One semester Level 4**

Prerequisite: Recommendation of junior year English teacher and an 86 or better in previous English class.

Course Description: *Classic World Literature to WWI*. This course is for college bound Honors level students who wish to broaden their reading experience to include Western Literature dating from the Aristophanes to Dante to Milton to Virginia Woolf. Students will read extensively through a variety of genres including drama, poetry, novel, novella, and essay. Several written essays are required as well as group work and one project. Students should expect challenging assignments and at least 100 pages of reading per week.

***Classic World Literature after WWI* One semester Level 4**

Prerequisite: Recommendation of junior year English teacher and an 86 or better in previous English class.

Course description: *Classic World Literature after WWI*. This course is for college bound Honors level students who wish to continue their reading experience in Western Literature dating from 1940 to the present day. Students will read extensively through a variety of genres including drama, poetry, novel, novella, and essay. Several written essays are required as well as group work and one project. Student should expect challenging assignments and at least 100 pages of reading per week.

***Creative Writing* One Semester Level 3**

Prerequisite: Pass junior English

Course Description: *Creative Writing* is a course designed for the student seeking to develop writing interests and skills, and publish their works. Students will explore writing fiction and non-fiction such as short stories, poetry, drama, and essays. This course is conducted as a workshop providing students the opportunity to work on common exercises, individually designed projects, and peer review through the process-writing format. Major reference texts include *Write to Learn* (7th Edition: Thomas-Heinle) and *The Craft of Revision* (Thomson-Heinle). Supplementary resources include *The Atlantic Monthly*. Students are encouraged to publish. This course is open to sophomores and juniors as well, however, priority enrollment will be given to seniors.

***Cinema and Literature* One Semester Level 3**

Prerequisite: Pass junior English

Course Description: *Cinema and Literature* is an interdisciplinary, literature-based course where students will analyze how literature and film interact and study how cinema

entertains, adapts, and extends the forms, ideas, and values of literature. Students will read both classic and modern literature and investigate how these works are interpreted and represented through the medium of film. Students will explore elements of plot, setting, theme, style, and point of view in both disciplines. The heroes, stories, and values that shape our culture will be studied as students become knowledgeable, critical, and creative viewers of film. Students will apply new understandings and appropriate film terms as they learn to read and write critical film reviews.

The Short Story

One Semester

Level 3

Prerequisite: pass junior English

Course Description: *The Short Story* is a course that will focus on reading short stories and understanding the craft behind short story writing. Students will become acquainted with the short story literary form by reading a selection of classic and contemporary American, British and other translated short stories. However, particular emphasis will be placed on American authors. Students will read critical essays about these short stories, write their own analyses, and take part in writer workshops to create and publish original short stories.

Contemporary Literature

One Semester

Level 3

Prerequisite: Pass junior English

Course description: *Contemporary Literature*. This course will engage students in a focused study of contemporary literature written in the past few decades that explore a variety of genres and that include multi-cultural perspectives on such topics as sports, politics, and pop culture (course topics will vary and be determined in part by the interests of the class). In addition, students will examine how and why different genres of contemporary literature appeal to different groups of readers, in particular, young adult readers. This course will be conducted using literature circles and incorporate a “book club” format to examine how and why different readers determine if a book is worth reading. Students will write and publish book reviews in a variety of formats. NOTE: students may be required to provide their own copies of texts.

**** Writing Lab**

One Semester

Level 3 ** Pass/Fail

Recommendation of Teacher Only

Required for any sophomore, junior, or senior who has failed one term or more of any level or course in English; or who must meet the MCAS ‘Needs Improvement’ requirement

Writing Lab is a heterogeneous class meeting in the computer lab or library. Primary focus will be on the various forms of written expression: description, definition, narration, comparison/contrast, persuasion and argumentation, SAT essay, and research paper. Students will produce, review, edit, and publish one written essay each week plus one longer project. This class is Pass/Fail.

Mathematics Department

The mathematics curriculum is aligned with the Massachusetts Mathematics Frameworks and National Council of Teaching Mathematics Standards. The course offers practice with test skills as well as developing the skills through practical applications. The honors program emphasizes the development of skills through the use of practical and application problems at an accelerated pace. The students will learn to use the graphing calculators as a mathematical tool. They will use computers, videos, and use other technology where applicable. Projects will be assigned to all grade levels to develop and reinforce skills and applications of mathematics.

The prerequisites are a suggestion for students and mandatory. Students who anticipate a career in mathematics, science, engineering or business should consider the honors program.

Students are required to complete three years of mathematics to meet the graduation requirement.

Topics in Math	Grade 9	One Semester	Level 2
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Prerequisite: Required of all freshmen

Course Description: This course is a review designed to strengthen and further develop mathematical skills. Various algebra, geometry, and statistics topics will be addressed. The MCAS test format and test-taking strategies will be emphasized. This is a pass/fail course that may be taken with its equivalent *Topics in English* Department.

Algebra I	Grade 9	Full Year	Level 3
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Course Description: This course covers simple equations, positive and negative numbers, fractions, problem solving, graphing, units of measure, perimeter, area, ratios, proportions and percents. The students will also be introduced to simple geometry topics. Additionally, they will review of MCAS topics.

Geometry	Grade 9	Full Year	Level 3
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Prerequisite: Average of 70 or better in Algebra I.

Course Description: The topics covered in this course are lines and angles, logical reasoning and proofs; triangle congruence and similarity; properties of polygons and circles; and area, surface area; and volume.

Honors Geometry **Grade 9** **Full Year** **Level 4**

Prerequisite: Average of 70 or better in Honors Algebra I or an average of 95 or better in Algebra I.

Course Description: The topics covered in this course are lines and angles; logical reasoning and proofs; triangle congruence and similarity; properties of polygons and circles, and area, surface area and volume. This is a more in-depth course than the non-honors section. The pacing is faster and the course covers more material. Students without strong algebra skills are strongly encouraged to take the non-honors section of this course.

Algebra II **Grade 10** **Full Year** **Level 3**

Prerequisite: 70 or better in Algebra II or 60 or better in Honors Algebra II.

Course Description: This course emphasizes facility with algebraic expressions, linear and quadratic equations, powers, roots and functions. Students study logarithmic, trigonometric, polynomial and other special functions as tools for modeling real world situations. The TI-83 graphing calculator is used extensively.

Honors Algebra II
Elective **Grade 10** **Full Year** **Level 4**

Prerequisite: 70 or better in Algebra II or 60 or better in Honors Algebra I.

Course Description: This course emphasizes facility with algebraic expressions, linear and quadratic equations, powers, roots and functions. Students study logarithmic, trigonometric, polynomial and other special functions as tools for modeling real world situations. The TI-83 graphing calculator is used extensively.

Everyday Math Modeling **Grade 12** **Semester** **Level 3**

Prerequisite: 70 or better in Algebra II or Honors Algebra II.

Course Description: This course will teach students general, wide-ranging strategies for problem solving. The basis of this class is the teaching and learning of strategies that people in the world of work utilize when problem solving. You will develop specific problem solving strategies, communication skills and attitudes.

Advanced Fundamentals **Grade 11** **Full Year** **Elective** **Level 3**

Prerequisite: 70 or better in Honors Geometry or 95 or better in Geometry.

Course Description: The topics covered in this course include functions, modeling, statistics, sequences, and logical reasoning. Students will model and analyze problem situations through systems of equations, inequalities, and regression. They will explore and apply linear, quadratic, radical, rational, and exponential functions. Students will develop an understanding using algebraic, numerical, and graphical methods. The TI-83 graphing calculator is used extensively.

Pre-Calculus Grade 11/12 Full Year Level 4

Prerequisite: 70 or better in Honors Algebra II or Advanced Fundamentals.

Course Description: The mathematical properties of higher degree functions are explored along with relationships between the various trigonometric functions. Trigonometric equations will be solved. Inverse trigonometric functions will be discussed and proof of identities will be emphasized. Practical applications will be explored. Conic sections and how to graph them will be stressed. Insight into imaginary numbers and polar coordinates and other topics of advanced algebra will be part of this course. This course is for students planning further studies into areas such as mathematics, science, engineering, and business.

Calculus Elective Grade 12 Full Year Level 4

Prerequisite: 80 or better in Pre-Calculus or teacher recommendation.

Course Description: This course deals with the mathematics of change – velocities and accelerations. It is also the mathematics of tangent lines, slopes, area, volumes, curvatures, and a variety of other concepts that model real life solutions. This class introduces students to the concepts and practical applications of calculus. Students will develop an understanding of derivatives and integrals, as well as, the process to find them numerically, algebraically, and graphically. The TI-83 graphing calculator is used extensively. If this course is run concurrently with the AP Calculus class, it will move at the same pacing, but the examinations will not include AP test questions.

AP Calculus AB Elective Grade 12 Full Year Level 5

Prerequisite: 90 or better in Pre-Calculus or teacher recommendation.

Course Description: This is a full year, college level course in the functions of one independent variable. Authorization has been granted to the instructor by the College Board for this course. The authorization granted to this instructor permits the school to use the “AP” designation on student transcripts. Many colleges and universities will award credit and allow students to enroll in upper level courses after demonstrating qualification on the AP examination.

Throughout the year students will learn calculus in depth, develop analytical reasoning skills, and form disciplined study habits that will contribute to continued success at the college level. This course includes differential and integral calculus topics that are typically included in an introductory Calculus I college course. Students will be expected to use graphing calculators (TI-83 Plus) to help solve problems. At the completion of this course students will take the AP Calculus AB test in May. Examinations will consist of prior AP test questions; tests and quizzes will be timed in preparation for the AP test.

College Math Review/Personal Finance	Semester	Level 3
Grade 12		

Prerequisite: 70 or better in Algebra II or Honors Algebra II.

Course Description:

This course is intended for college bound students who wish to review the concepts of applied mathematics, arithmetic, Algebra I, Algebra II, and Geometry in preparation for the SAT, ACT, college entrance exams, and freshman college mathematics. Students will be presented with basic probability concepts and various statistical concepts. There is a banking unit, housing unit, loan unit, and tax unit.

Probability	Grade 12	Semester	Level 3
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Prerequisite: 70 or better in Algebra II or Honors Algebra II.

Course Description:

The course covers the basic principles of the theory of probability and its applications. Topics include combinatorial analysis used in computing probabilities, the axioms of probability, conditional probability and independence of events; discrete and continuous random variables; joint, marginal, and conditional densities, moment generating function; laws of large numbers; binomial, Poisson, gamma, univariate, and bivariate normal distributions.

Statistics	Grade 12	Semester	Level 3
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Prerequisite: 70 or better in Algebra II or Honors Algebra II.

Course Description: This course deals with random numbers and random outcomes. Students will learn real world applications of probability, such as predicting the weather and determining the odds of winning the lottery. They will learn how to use charts and graphs in predicting final outcomes. Also, a variety of statistical concepts will be discussed. An assignment dealing with percents and random numbers will be the final project of the class.

Accounting I	Elective	Grade 9-12	Full Year	Level 4
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Course Description: This course involves two elements of a business cycle in which the student should demonstrate proficiency; keeping income and expense records and determining from these records the profit or loss for a fiscal period. Skills such as critical thinking, problem solving, and recognizing good business ethics are stressed in this course. In addition, students should demonstrate the ability to complete projects in a specified time frame by meeting pre-determined goals. Through the use of technology, students will further increase their knowledge base by inputting accounting transactions into the computer and producing professional accounting statements, reports and graphs.

Accounting II Elective Grade 10-12 Full Year Level 4

Prerequisite: Accounting I with a recommended grade average of C

Course Description: Accounting II continues to explore accounting in more detail.

Expanding upon the topics learned in Accounting I, students learn new information such as accounting for corporations, forming and dissolving business organizations, and management. The study of a second year of accounting continues to emphasize problem solving and critical thinking skills, and a common core of accounting knowledge.

Accounting II is appropriate for students who are preparing for business majors or those who plan to go directly into business. The use of technology is an integral part of this accounting course.

Accounting III Elective Grade 11-12 Full Year Level 4

Prerequisite: Accounting II with a recommended grade average of C or better.

Course Description: Accounting III incorporates both manual and computer based instruction for those students who desire employment in the business field or who anticipate being self-employed. This course will review accounting procedures beyond those learned in Accounting II while continuing to stress problem solving, critical thinking, and academic excellence. Students will demonstrate the ability to understand the many concepts presented and the ability to produce work of high quality work.

Science Department

Students are required to pass three years of science for graduation. Students typically take Introductory Physics freshman year, Biology or Survey of Biology sophomore year, and Chemistry or Survey of Chemistry junior year. Additionally, elective courses are offered in Physics, Environmental Science, Advanced Chemistry, Human Anatomy and Physiology, Advanced, Human Anatomy and Physiology, and Advanced Placement Biology. MCAS Science is also offered for students who would benefit from additional preparation for MCAS Science tests. Entrance into science courses is subject to criteria recommended by the Science Department.

Honors Introductory Physics **Grade 9** **Full Year** **Level 4**

Prerequisite: Recommendation by teacher

Course Description: This is an Introductory Physics course recommended for students with interests in math and science. Concepts and mathematical problems solved are both important aspects of this course. Labs are used to both introduce and reinforce the concepts. The key concepts covered include: Motion and Forces, Conservation of Energy and Momentum, Heat and Heat Transfer, Simple Harmonic Motion and Waves, Electromagnetism and Electromagnetic Radiation.

Introductory Physics **Grade 9** **Full Year** **Level 3**

Prerequisite: None

Course Description: This is an Introductory Physics course intended for all freshmen students. Concepts and mathematical problems solved are both important aspects of this course. Labs are used to both introduce and reinforce the concepts. The key concepts covered include: Motion and Forces, Conservation of Energy and Momentum, Heat and Heat Transfer, Simple Harmonic Motion and Waves, Electromagnetism and Electromagnetic Radiation.

Biology **Grade 10** **Full Year** **Level 4**

Prerequisite: Complete Grade Nine Science and Teacher Recommendation

Objectives: Biology is intended for those students with a strong aptitude and interest in Science. A broad spectrum of biological topics is presented in greater detail and at a faster pace than Survey of Biology. Emphasis is placed on the molecular nature of biology, genetics, evolutionary principles, and ecology, and a survey of human organ systems. Scientific processes and methods are presented in the course and applied in laboratory experiences, including dissections. This course is aligned with all requirements of the Massachusetts State Frameworks.

Survey of Biology Grade 10 Full Year Level 3

Prerequisite: Complete Grade Nine Science

Course Description: Survey of Biology provides coverage of the same topics as Biology at a slower pace and in less demanding detail. This course involves laboratory investigations including dissections.

Chemistry Grade 11 Full Year Level 4

Prerequisite: Recommended minimum of 70 in Honors Algebra II or 80 in Algebra II

Course Description: This course is designed and recommended for the college preparatory student who needs a thorough understanding of the fundamental concepts of modern chemistry as a background for advanced study. Detailed coverage is given to the study of physical and chemical properties of matter, atomic structure with emphasis on electron configuration and orbital notation, formula writing and nomenclature, chemical equations, chemical reactions, nuclear reactions, periodicity of structure and properties, chemical problems to exhibit the Laws of Definite Composition and Conservation of Matter, the study of acids, bases and salts, analytical procedures, and many other chemical principles. Course work includes laboratory activities.

Survey of Chemistry Grade 11/12 Full Year Level 3

Prerequisite: Recommended minimum of 60 in Algebra I

Course Description: Survey of Chemistry is intended for those students who plan to pursue a college degree or some other post secondary education in a field other than science. This course provides coverage of the same topics as Chemistry at a slower pace and in less demanding detail. This course includes laboratory investigations.

Environmental Science Grade 11/12 Elective Full Year Level 3

Prerequisite: Pass two semesters of Science

Course Description: This course emphasizes awareness of one's environment, specifically issues affecting New England. Topics to be covered include biomes, changes in the biosphere, matter and energy in the ecosystem, interactions and balance in the eco-system, resources in the biosphere, pollution issues, and the human impact on the environment.

**Advanced Human Anatomy & Physiology
Grade 11/12 Elective Full Year Level 4**

Prerequisite: Recommended minimum of 80 in Biology and pass Chemistry. Chemistry may be taken concurrently.

Course Description: This advanced course is for the student who intends further study in medical or health related fields including premedical programs, nursing, biotechnology, medical technology, emergency medical technology, physical therapy, sports training and

other related programs. This comprehensive course will cover the anatomy and physiology of the human at the molecular (genetic), cellular, tissue, organ, and organ system levels. Laboratory work will include histological studies, physiological investigations, and dissections of a representative vertebrate.

Human Anatomy & Physiology Grade 11/12 Elective Full Year Level 3

Prerequisite: Recommended minimum of 70 in Survey of Biology or pass Biology

Course Description: Physiology will include a broad spectrum of topics covering the structure and function of human systems. Clinical aspects of diseases and disorders will be covered. This course involves laboratory investigations including vertebrate dissection.

**Advanced Placement Biology Double Block Elective Full Year Level 5
Grade 11/12**

Prerequisite: Recommended minimum of 85 in Biology, completion of chemistry (chemistry may be taken concurrently with the AP Biology teacher's approval), and completion of a summer assignment. Students are required to take the AP Biology exam.

Course Description: The AP Biology course is designed to be the equivalent of an introductory college biology course taken to fulfill that requirement for a major in biology. Authorization has been granted to the instructor by the College Board for this course. The authorization granted to this instructor permits the school to use the "AP" designation on student transcripts. Many colleges and universities will award credit and allow students to enroll in upper level courses after demonstrating qualification on the AP examination.

Advanced Chemistry Grade 12 Elective Full Year Level 4

Prerequisite: Recommended minimum of 80 in Chemistry/ Survey of Chemistry.

Course Description: This course is designed for the outstanding student who has completed a full year of introductory Chemistry and desires an additional course in order to obtain a more in-depth background for college work. This course deals with experimentation in relation to qualitative and quantitative aspects of chemical equilibrium, enthalpy and entropy changes, redox reactions, and organic reactions.

Physics Grade 12 Elective Full Year Level 4

Prerequisite: Recommended minimum grade of B in Introductory Physics and be taking or have taken Advanced Fundamentals of Math, Pre-Calculus or Calculus.

Course Description: Advanced Physics is an algebra and trigonometry - based physics course and is intended as a second year Physics course. Concepts and problem solving are both important aspects of this course with an emphasis on problems solving. Labs are used to reinforce and introduce the key concepts. The key concepts include Newton's Laws, Circular Motion and Universal Gravitation, Conservation of Energy and Momentum, Simple Harmonic Motion and Mechanical Waves, Electrostatics, DC Circuits, Magnetism, Electromagnetism and Light and some key ideas of Modern Physics.

History and Social Studies

A good social studies program exposes students to the choices and ideas of both past and current societies. Social studies should help students understand how people lived and interacted in history in order to help them develop their own value system from which they can determine the right thing to do in situations throughout their life. Social studies education helps students mature and realize that the right thing to do is not always the easy thing to do. Social studies education helps students identify their rights, responsibilities, and duties as a citizen of the United States. As another educator once put it, social studies education is about “decency, courage and honor.” Understanding these values is the goal of the curriculum.

All students must take history during their first three years at Maynard High School. All students must pass each course in the proper sequence to meet graduation requirement. An honors program is offered in each year of required history courses. Seniors have the option to participate in the History/Social Studies Department’s elective program. In addition, students have the opportunity to take Advanced Placement American History and Advanced Placement World History.

U.S. History I: 1763-1877

Full Year

Level 3, 4

Course Description: Students examine the historical and intellectual origins of the United States during the Revolutionary and Constitutional eras. They learn about the important political and economic factors that contributed to the outbreak of the Revolution as well as the consequences of the Revolution, including the writing and key ideas of the U.S. Constitution. Students also study the basic framework of American democracy and the basic concepts of American government such as popular sovereignty, federalism, separation of powers, and individual rights. Students study America’s westward expansion, the establishment of political parties, and economic and social change. Finally, students will learn about the growth of sectional conflict, how sectional conflict led to the Civil War, and the consequences of the Civil War, including Reconstruction.

U.S. History II: 1877-Present

Full Year

Level 3, 4

Course Description: This course examines United States history from the post-Civil War era to post-Cold War America. Emphasized is the path America undertook to evolve from its provincial past to its modern superpower status. While foreign policy is chronicled, so to are the social and economic revolutions that took place to transform America. This course challenges students to think critically about our nation’s past and to debate the values and policies of our current society.

Advanced Placement United States History **Full Year** **Level 5**

Prerequisite: Satisfactory completion of summer assignments

Course Description: This challenging course exposes students to college level historical analysis and reasoning. Students have the opportunity to earn college credit with successful completion of the national AP exam. This is a superb opportunity for the serious student of history to analyze and debate major principles and events of American history. The course is based on a college text as well as numerous primary and secondary sources. The content covers American history from colonial times through the present. A strong emphasis is placed on analytical writing and reading. AP students are required to take the AP exam in May.

Modern World History: 1800-Present **Full Year** **Level 3, 4**

Course Description: This course examines the economic, social, and political roots of the modern world from the rise of Napoleon through the present. Topics explored include the Democratic and Industrial Revolutions, Imperialism, Communism, Totalitarianism, the World Wars, and contemporary issues.

20th Century History through Film **Senior Elective** **Semester** **Level 3**

Course Description:

Twentieth Century History through Film will interpret major historical events with an emphasis on the Holocaust and World War II in Europe, Africa and Asia, as well as others such as The Cold War, The Vietnam War, The Black-Hawk disaster in Somalia, the Genocide in Rwanda and other major historical topics of the 20th Century.

Evaluation: Student achievement will be assessed through homework, demonstration of preparation for class through class discussion and debates, quizzes, short essays, reports, and other forms of assessment.

US and the World **Semester** **Level 3**

American Foreign Policy & Global Issues

Course Description Is the US the number one superpower today? What challenges face the United States today both at home and abroad? Should the United States continue to be the policeman of the world? Should the US respond to genocide if no other country does? In this course students will examine the causes and consequences of American foreign policy since 1898. History, geography, economics and political science will guide students on a journey through imperialism, isolationism, world wars, and contemporary global issues. Students will understand the role the US plays in the world and debate its future role. Students will role-play, simulate, debate, and predict US policy

Law and Government**Semester****Level 3**

Course Description: Do you know what the 5th Amendment protects you from? Should the government be able to wiretap your phone? What is the source of law and rights in this country? What distinguishes the US legal system from other countries? This course helps students answer all of the above and ask even more. The course examines the structure of the US government the principles and practices of the US legal system and introduces students to both their rights and responsibilities in our society. The course has particular focus on Constitutional Law and Civil Liberties, Criminal Law and Juvenile Justice, Torts, Consumer and Housing Law, Family Law and conducts a Mock Trial for the rest of the school.

Psychology**Semester****Level 3**

Course Description: What motivates you? What is the meaning of your dreams? Are you a left brain or right brain thinker? What is the learning style you use? What is your id? Psychology studies these questions as well as the newest research on mental processes and behaviors. This course looks at the historical development of the field, its current trends, and its most famous theories. Students will investigate Brain Research, Perception, Memory and Learning, Motivation, Personality, Human Development, Abnormal Psychology and conduct their own original research in a field of their choice.

Economics**Senior Elective****Full Year****Level 4**

Course Description: “Jobless Recover,” “Federal Funds Rate,” “Fiscal Policy,” “Guns and Butter.” These economic ideas are some of the content covered in this honors level course. Economics is the study of the choices people make with their resources and the impact these choices have on all other political, social, and environmental policies. Students explore micro and macroeconomics and examine the nature of monetary and fiscal policy, the role of government in the economy, the impact of trade agreements, as well as how markets work under the forces of supply and demand. Students produce a research project, maintain a personal financial portfolio, and help predict monetary policy. Students receive a “real-life” lesson in a yearlong budget simulation program.

World Language Department

Maynard High School offers two foreign languages: French and Spanish. Massachusetts state colleges require the successful completion of two years of one foreign language in order to be admitted. Some colleges recommend that students take three years if possible. The World Language Department recommends a third year (honors level) for highly motivated students who wish to continue the success of the prior two beginning levels. Students can fulfill the requirements through the following sequences:

Spanish Conversation I	Spanish I	French I
Spanish Conversation II	Spanish II	French II
	Spanish III Honors	
	Spanish IV Honors (Pre-AP)	
	Spanish V Honors / Adv.	
	Placement (AP)	

French I **Elective** **Grades 9-11** **Full Year** **Level 3**

Course Description: This course provides an introduction to the fundamentals of the French language. Equal emphasis is placed on the four basic skills of language acquisition: listening, speaking, reading and writing. The study of grammar is an essential part of this course. Aspects of contemporary French culture are also discussed.

Expectations:

- Become familiar with and accustomed to speaking and listening to French in the classroom.
- Use vocabulary orally in questions and dialogues.
- Use vocabulary to write simple sentences.
- Learn the present tense of regular verbs, irregular verbs and stem changers.
- Become familiar with the past tenses and how they are used.
- Study the cultures of the French-speaking world.
- Use technology to complete research and make oral presentations.
- Learn how to enhance and perfect the four language skills of reading, writing, speaking and listening.
- Develop writing skills through writing short paragraphs and compositions.

French II **Elective** **Grades 10-12** **Full Year** **Level 3**

Prerequisites: Passing average in French I

Course Descriptions: This course is designed to continue the development of the listening, speaking, reading and writing skills of the French language. Vocabulary will be expanded and grammatical skills further developed. Particular attention will be given to the listening and speaking skills. The teacher will use the target language as a practical

means of communication. The study and appreciation of French culture throughout the world will be an integral part of this course.

Spanish Conversation I Elective Grades 9-11 Full Year Level 3

Course Description: This course is geared to the student who wishes to pursue the goal of proficiency in Spanish. Students successfully completing this course will have basic knowledge of speaking and listening skills, with the beginnings of reading and writing skills as a secondary focus. The student enrolling in this course will be able to begin to follow basic Spanish speech and be able to communicate through simple Spanish sentences. Students will have simple, real world conversations using important basic conversations within a series of themes. Students will be able to use present, past, future, and conditional tenses through conversation, but will not be focused on the grammatical formation of the tenses. They will use practical conversation to learn vocabulary. Because of the verbal, rather than grammatical approach to this course, students successfully completing Spanish Conversation I would be excellent candidates for Spanish Conversation II. Exceptionally motivated students proving strong proficiency upon completion of this course would be recommended to continue on to a grammar-based Spanish I course.

Spanish Conversation 2 Elective Grades 9-12 Full Year Level 3

Prerequisite: Pass Spanish Conversation 1

Course Description: This course is designed for students who wish to continue their proficiency-based, instead of grammatically-based studies in Spanish. Students will use more Spanish listening and speaking skills to communicate orally while beginning to learn basics of the grammar through real-life readings such as magazines, ads, menus, etc. Students successfully completing this course would be excellent candidates for beginning a regular Spanish I grammar-based program.

Spanish I Elective Grades 9-11 Full Year Level 3

Course Description: This is a Beginner Level Course. This course provides an introduction to the fundamentals of the Spanish language. Equal emphasis is placed on the four skills of language: listening, speaking, reading and writing. The present and preterite tenses and practical daily-usage vocabulary will be introduced. The study of Hispanic cultures throughout the world will be an integral part of the course.

Spanish II Elective Grades 9-12 Full Year Level 3

Prerequisite: Successful completion of Spanish I or Spanish IB, as determined by maintaining a minimum average of 80 for the year and no less than a 70 on the final exam. This prerequisite also applies to native speakers of Spanish.

Extremely motivated students who failed to meet the prerequisite 80 in Spanish I but are willing to work hard and want to take Spanish II may take Spanish IB for credit to prepare for success in Spanish II.

Course Description: This is an Advanced Beginner Level Course. This course is designed to continue the development of the four skills of language which began in Spanish I: listening, speaking, reading and writing. Vocabulary will be expanded and grammatical skills will be further developed with the introduction of many new tenses and structures. The study of Hispanic cultures throughout the world will be a continued focus of the course.

Spanish III-IV **Elective** **Grades 10-12** **Full Year** **Level 3-4**

Prerequisite: Successful completion of Spanish II, as determined by maintaining a minimum of an average of 80 for the year and no less than a 70 on the final exam.

This prerequisite also applies to native speakers of Spanish.

Course Description: This is an Intermediate Level Course. This course is designed for the motivated student who wishes to continue toward advanced levels of proficiency in the four skills of language: listening, speaking, reading and writing. This course is conducted in Spanish and students who wish to take it must have developed a "good ear" for the language in the previous two years of study, as well as having a strong command of speaking and grammar skills. Essay writing and reading of literature will be a focus of this course along with the continued study of Hispanic cultures throughout the world.

Advanced Placement **Elective** **Grade 12** **Full Year** **Level 5**
Spanish Language (AP)

Prerequisite: Approval of instructor and thorough/outstanding completion of summer work to be done by the mid-August due date before the class begins. This prerequisite also applies to native speakers of Spanish.

Course Description: This is a Third Year College Course in Spanish language. The World Language Department will offer an Advanced Placement Spanish Language course during the years when adequate numbers of students qualify for this rigorous college-level course in Spanish language and literature. The College Board describes this course is the equivalent to a third year college level course in Spanish grammar, composition and conversation. It is geared toward the most motivated students of Spanish who wish to take the Advanced Placement test in early May and achieve a score of 3, 4, or 5 on the exam to receive college credit. The course focuses on perfecting the skills learned in the previous four years of study. Students wishing to take this course should have the strongest command of all aspects of grammar and must be willing to work both in and out of class on all four skills in order to achieve full fluency by the test date. The course load is intensive as it attempts to prepare students for excellence on the exam, as well as for future, regular use of the language in daily life.

musician to better understand the music he/she performs and to allow for the creativity of the student to take focus in composition.

Music Composition Grades 10-12 Full Year Level 3

Prerequisite: The ability to plan an instrument and read basic music notations.

Course Description: This class is a one year elective course aimed at students who want to have a better understanding of music. Students will learn about developing different compositions of music from jazz and rock to medieval and classical. The course considers music in its cultural context.

Advanced Placement Music Theory Grades 9-11 Full Year Level 5

Prerequisite: Students must have taken one year of music theory and earned a yearly average of at least 90. Students will also be given summer reading and writing assignments that must be completed and turned in before school begins.

Course Description: The purpose of this course is to teach the theoretical concepts of music theory that are generally covered in a first year college music theory class. The course is designed to prepare a student to take the AP Music Theory exam given each spring. The content of the course will cover the basic and advanced concepts of theory tested in this exam as well as the accompanying ear training. Students will also compose original pieces of music, analyze scores, and learn piano and MIDI skills.

Wind Ensemble Grades 9-12 Full Year Non Credit Elective

Prerequisite: Audition only. Students must be capable of playing and sight reading grade 4 & 5 literature.

Course Description: The MHS Wind Ensemble is the honors section of band. It is a challenging instructional ensemble comprised of the most talented and motivated musicians at MHS. This group meets Monday afternoons from 2:00-3:00 p.m. and plays difficult high school and college level literature.

Stage Band Grades 9-12 Full Year Non Credit Elective

Prerequisite: Audition only

Course Description: This course provides the opportunity for selected musicians to play difficult and unusual rhythms, carry an independent part, become aware of the importance of proper phrasing and blending, and learn to create and improvise solos as demanded in stage band/jazz ensemble. Repertoire is chosen from jazz and rock literature with occasional funk/fusion pieces. Performance standards are consistent with those of the concert band. Rehearsals are held Wednesday evenings from 5:00-6:00 p.m. with sectionals scheduled as needed.

Flute Ensemble Grades 9-12 Full Year Non Credit Elective

Prerequisite: Audition only

Course Description: This course will encourage excellence of its musicians and provide opportunities for much solo and ensemble work for superior flautists. Most of the literature performed will be classical and written for 4-6 parts. Focus will be on tone, intonation, phrasing, nuances of dynamics, expression and use of advanced techniques such as rubato.

Madrigals Grades 9-12 Full Year Non Credit Elective

Prerequisites: Audition only

Course Description: The Madrigal Singers are a select group of a cappella singers. This is the honors group of the concert choir. Their literature includes the Gregorian chant, the Medieval and Renaissance periods, and other appropriate unaccompanied music. Emphasis is placed on tone development, strength of independent parts, intonation, and balanced and blended voicing of the group. This group performs a Renaissance Banquet every other year. This group performs for some special occasions such as the State House functions and competitions. Madrigals meet on Wednesday evenings from 5:00-6:00 p.m.

A Cappella Choir Grades 9-12 Full Year Non Credit Elective

Prerequisite: Audition only

Course Description: The A Cappella Choir is a group of singers who sing expressly unaccompanied music. The students may sing in as many as eight part harmonies, using vocal percussion and voices as various instruments (string bass, for example). The group models itself after various university a cappella groups. Literature is usually pop-rock with occasional jazz and unusual pieces. This group meets from 6:00-7:00 p.m. on Wednesday nights.

Technology Education Department

Integrated Computer Applications **Semester** **Level 3, 4**

Integrated Computer Applications is one semester course that will focus on the Microsoft Office suite and the integration that is made possible between word processing, spreadsheet, database, and graphic files. Complex documents will be created that can include files from all the various applications software. Presentation software and hardware is introduced.

The Internet & Web Page Development/HTML **Semester** **Level 3, 4** **Prerequisite:** Integrated Computer Applications

This one semester course serves as an introduction to basic web page development and the Internet. Discussion points will include social, ethical, and legal issues related to the growth of the Internet. Topics include history of the Internet, web browsers, audio files, search engines, security, online course work.. Projects will include how to design and create web pages using HTML, Dreamweaver, Fireworks and photo editing using GIMP.

Computer Aided Design 1 **Semester** **Level 3**

Course Description: This course will provide students with an introduction to the CAD and how it can be applied to solve a wide range of problems. Students will learn to use at least two different CAD programs to an introductory level of competency (Data CAD, Auto CAD, Photoshop, or Desktop/Pro). Students will choose one software application for in-depth study and use it to help solve a project style design problem. Students will be required to use various tools, machines, and materials to create models or final products of systems they design. The course will help students to see how CAD is part of an overall design process.

Computer Aided Design 2 **Semester** **Level 3**

Course Descriptions: The course is a direct extension of CAD 1. Students will continue to develop their expertise in CAD software and use it to solve a series of technical problems. Students will combine CAD skills with workshop skills to create 3D models of actual solutions to problem sets. Additionally, students will explore career options related to CAD through visitations from industry experts and with visits to other institutions, such as the New England College of Technology.

Radio and Television Programming and Production**Grades 9-12****Elective****Semester****Level 3**

Course Description: This basic course runs for one semester. Students have the opportunity to take a second semester in an Independent Radio and TV course upon successful completion of the first semester. The semester is comprised of approximately twenty weeks with two ten-week terms. Term one focuses on television work. Term two focuses on radio. However, there is significant overlap of project work between both. Students are given the opportunity to enhance acquired skills in both areas during class time and in after the school WAVM program, which runs daily from 2:00-9:00 p.m. The course is divided into several units. Each unit involves introductory lectures and equipment demonstration. This is followed with extensive hands-on team and individual mastering of the equipment. Each unit culminates with an assigned project to demonstrate each student's understanding of the material. Written and oral exams are given periodically. Projects may range from scripting and producing a five-minute news segment to preparing a set of interviews and video on a timely topic. The course is limited to twelve students each semester.

Independent Study/Instructional Aides Programs

Independent study and instructional aide courses are available to students at Maynard High School. Students must complete the application form with their counselor. All programs must be reviewed by the principal for final approval.

Work Study

Elective

Grades 11-12

Pass/Fail

Course Description: Students will work at a job location of their choice throughout the school year. They must actively work at least 10 hours a week in order to earn credit. Students will meet periodically with the instructor and be required to complete a project each term that links work based learning with their academic learning.

Senior Project Pilot Program

The Senior Project is a nationally recognized and acclaimed program which is designed to be the culmination of a student's academic experience. It allows a student to demonstrate the knowledge, skills, and maturity he/she has acquired throughout high school. The Senior Project engages exceptional learners as active participants in a challenging, rigorous, focused and independent learning experience within a supportive environment. Successful Senior Projects provide students an opportunity to differentiate themselves within the increasing number of applicants for colleges and scholarships. In many cases students choose to do an internship which is the beginning of the networking support that is vital to success in college and beyond. Students successfully completing their senior project will receive a grade for Honors credits ranging from 2 ½ - 7 ½ credits, depending upon their senior project, as well as recognition as graduating with "Senior Project Honors Distinction" at Senior Awards Night and graduation.

Senior Project consists of five phases:

A. Letter of Intent

In the spring of their junior year students who wish to explore this option should file a letter of intent, teacher letter of recommendation, and signed parent document of understanding to the Guidance Office by March 12th.

B. Senior Project Planning and Research Course – Fall Senior Year

During the fall of their senior year students will take a semester long course, 2 ½ credit course in planning and research in preparation for the development of their senior project proposal. At the end of this course students will present their proposal to a panel of the principal, two teachers, and a student for approval. Approved projects will be undertaken during the second semester of their senior year for up to 7 ½ honors credits. The proposal will include an 8 – 12 page research paper which connects to the student's topic, as well as a Powerpoint Presentation on the project proposed.

C. Project and Product – Spring Senior Year

The project itself will be undertaken in the mid-January, February, March, April, and early May. It will involve working a minimum of 5 hours a week (1 hour per day) on the project. This work is intended to take place off-site. Students are encouraged to seek internships as part of their project, which may involve up to three class periods a day off-site. During this time period students must keep a learning log. In addition, the student must develop a "product" as part of this project.

D. Portfolio – Mid-May

During mid-May students will develop a Senior Project portfolio which will include a binder of documentation and a multi-media presentation. The binder will contain all the completed forms and documents necessary for the Senior Project process, the learning log, and any additional information (ideas, plans, experiments, data, conclusions) relevant to the project.

- E. During senior exam week students will give a 15 – 20 minute presentation to an assessment panel made up of the principal, two teachers, two juniors, and a community member. The grade for the project will be determined through this presentation and a review of the senior project portfolio by the senior project teacher for the fall semester.

FAQ's

Q. What if my proposal is not approved, will I still receive a grade for the fall semester?

- A. Yes, provided you attended each class and completed the proposal process, you will receive a grade for the class and credit for the course (2 ½ credits).

Q. What if my proposal is approved and I decide not to do my proposal?

- A. You will receive the grade you earned for the class and 2 ½ credits for the first semester course.

Q. What if my proposal is approved, but I do not complete my project successfully?

- A. You will receive a grade commiserate with the work you have done. You will not graduate with Senior Project Honors Distinction.

Q. What kinds of things can be done for a senior project?

Fall Research Paper	Spring Project	Internship Possibility
History of Fashion	Design/sew a clothing line	Seamstress/clothing designer
Remodeling cars	Refurbish a car	Autobody shop
“Green architecture”	Build a model home	Architecture firm
Animal neglect	Informative powerpoint	Animal shelter
Art therapy	Art display from handicapped Children	Special Ed Aide
Hunger in America	Develop informative pamphlet	Work soup kitchen
Abuse of Elderly	Develop interactive display	Meals on Wheels
Cabinet Making	Build a model	Carpenter
Music Composition	Write 8 children’s songs	Help w/music program