

Gloucester High School

Accredited by the New England Association of Secondary Schools and Colleges

Program of Studies 2011 – 2012

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A Letter from your Principal
Dr. William J. Goodwin

WELCOME TO GLOUCESTER HIGH SCHOOL

The mission of Gloucester High School is to produce graduates with integrity, knowledge and skills necessary for productive citizenship. We expect that you will put forth the effort each and every day in the academic, social, and extra curricular programs for you to fulfill the school's mission and be prepared to progress successfully to the next stage of your life.

The entire staff of Gloucester High School is committed to supporting your mission of graduating from GHS with the knowledge and skills you need to be successful in life. Achieving success in any endeavor is not easy in school or in life. It requires consistent self-discipline. Develop a daily routine. Arrive to school on time. Get to each class on time with pens, pencils, binders, textbooks, and other necessary materials. Prepare for each class by consistently doing your homework.

Be part of your Gloucester High School community by joining a club, organization, or an athletic team and you will make new friends and develop a lifelong interest in whatever you choose. National surveys state that by joining an extra-curricular activity you increase the chances of being successful in school.

This is your school! Take pride in its accomplishments, appearance, and its public image. It is a reflection of you, the students who occupy it, each and every day.

May the following winds fill your sails and your course be always true!

We are the Gloucester Fishermen!

William J. Goodwin

Principal

Our Mission

Mission Statement

The mission of Gloucester High School is to produce graduates with integrity, knowledge and fundamental skills necessary for productive citizenship. To achieve these results, instruction is purposeful, engaging, relevant and rigorous. A culture of positive relationship building and personalization within the school and the community encourages and supports self-reliance and problem-solving for success.

Academic Standards

1. Uses reading comprehension strategies for understanding
2. Utilizes problem-solving strategies and thinking skills
3. Applies writing, listening, visual and speaking skills to communicate ideas
4. Exhibits understanding and application of various technologies

Social Standards

5. Works effectively as a member of a team
6. Demonstrates personal responsibility and integrity

Graduation Requirements

In order to graduate from Gloucester High School, a student must successfully complete the following requirements:

Pass 4 years of English including *English 9, English 10, English 11, and an English 12 elective requirement.*

Pass 3 years of social studies including *U.S. History 9, U.S. History 10 and World Regions and Cultures*

Pass 3 years of science.

Pass 3 years of mathematics.

Pass 2 years of health and fitness or 2 years of ROTC.

Pass 5 credits in technology.

Pass 5 credits in Arts (visual, performing, occupational or industrial arts).

Earn a total of 112 credits.

Pass/complete Massachusetts Comprehensive Assessment (MCAS) requirements

MCAS Graduation Requirements

The state requires that all students pass English/Language Arts, Mathematics and Science (Biology, Chemistry or Principles of Technology) MCAS examinations in order to receive a high school diploma. MCAS exams are taken in the spring of sophomore year. Retests for students who score below 220 on either exam are taken in the fall and spring of each academic year.

The state also requires that students who do not receive scores of 240 or above in English/Language Arts and/or Mathematics MCAS tests must fulfill the requirements of an Educational Proficiency Plan in those subject areas in order to graduate.

Requirements for Entrance to Massachusetts State Colleges

Academic course requirements for consideration of acceptance at Massachusetts state colleges and the University of Massachusetts system are 16 units of academic work based on the following courses, all of which must be at or above the college preparatory level.

- 4 years of English
- 3 years of mathematics (including Algebra I, Algebra II, Geometry)
- 3 years of science (2 laboratory-based courses including Biology and Chemistry)
- 2 years of social science (including United States History)
- 2 consecutive years of a single foreign language
- 2 additional college prep courses from those areas listed above or the arts, humanities, computer sciences

The minimum Grade Point Average (GPA) requirement without consideration of SAT scores is a 3.0 GPA.

Developing Your Program

You need a plan! Start with an end in mind. What do you think you might like to do after high school? Use the guidance career information and resources available in the guidance department as a starting point in developing your program of studies each year..

Check with your guidance counselor regularly to talk about your dreams. Ask your teachers and parents what they see as your strengths. Stretch for your dreams. Start right away.

College Preparation

Colleges and universities look for graduates who have demonstrated a four-year record of high performance in challenging programs. Your transcript shows colleges that you have high expectations for yourself and that you have developed the self-discipline to participate successfully in a college or university atmosphere.

Students are strongly urged to explore the options for study among various departments. Students are encouraged to select elective courses in art, business, industrial arts, child study, culinary arts and music.

Entrance requirements for post-secondary schools and colleges vary to such an extent that it is impossible to designate any one series of courses as an optimum sequence for entrance. Your career plan should incorporate the requirements of post-secondary schools and colleges in which you are interested. It is important to understand the specific requirements of each school in order to ensure that you complete all necessary high school requirements. Please make an appointment with your guidance counselor to obtain specific help with college and career planning.

Technical Schools

High school requirements for technical schools vary depending on the school's requirements and/or the depth of the program desired. Some programs may require advanced math and/or science courses while others may require advanced technical courses. Students who are interested in admission to technical or business schools should consult the catalog of the individual school and see their guidance counselor for help.

Art Schools

Admission to art school is generally based upon a student's portfolio. This portfolio should be started early in the student's high school career. Academic requirements for art schools vary widely. Students should check individual catalogs for precise information. Consult your art teacher and your guidance counselor for help in selecting coursework.

Levels: What Do They Mean?

Advanced Placement

These courses represent the most challenging curriculum we offer. They are equivalent to college level coursework. Each Advanced Placement course is approved by the College Board and culminates in a nationally-standardized exam. Students who receive high scores on Advanced Placement examinations may earn college credit and/or be exempted from particular courses at the college they attend. Teachers maintain a highly aggressive pace in order to cover the necessary content. Advanced Placement classes are offered in Biology, Calculus, Chemistry, English, Physics, Statistics, United States History and Economics. *All students enrolled in Advanced Placement courses must take the Advanced Placement examination in those courses.*

Students interested in participating in Advanced Placement courses must

1. Complete an Advanced Placement application *for each course*
2. Meet the entrance requirements for each course
3. Agree to terms and conditions of each AP course instructor including summer assignments, attendance, etc.

Honors

Most departments offer honors courses for advanced students. Typically, course progressions culminate in Advanced Placement offerings. These courses are highly demanding in both class work and homework. Entrance is based on teacher recommendations, grades and prerequisites. Additionally, students may be required to achieve a minimum score on a diagnostic placement test or rubric.

College Prep 1

These courses are academically rigorous and set high expectations based on the Massachusetts Curriculum Frameworks. Reading, organization, higher order thinking skills and communication skills are essential to success. Students are expected to learn challenging concepts and to be able to apply them to new problems and situations. These classes offer excellent preparation for exacting college work.

College Prep

Elective courses with a demanding academic curriculum based on the Massachusetts Curriculum Frameworks are designated college prep. These courses are academically rigorous and establish a solid knowledge base and skill level for participating students.

College Prep 2

These demanding classes provide support and encouragement to those students aspiring to the rigors of college work. Students will experience high levels of challenge based on the Massachusetts Curriculum Frameworks, but will obtain extensive support in achieving those expectations. Lessons are paced, readings are measured, and study skills are emphasized.

College Prep 2 classes meet state and community college requirements.

Core

These courses provide core concept instruction. There is a strong emphasis on organization and study skills. Instruction is generally individualized to a student's personal learning needs. Core courses provide solid instruction based on the Massachusetts Curriculum Frameworks preparing students for success on the MCAS.

Core classes may be taken only with the recommendation of the special needs department.

Electives

Electives allow students to study subjects that are of interest to them. Course offerings

available provide opportunities for a tremendous range of skills, talents and abilities to be nurtured and developed.

Electives offer opportunities for students to explore possible talents and skills. Students may, in pursuit of an interest, hopscotch from one elective course or sequence of courses to another. Philosophically and practically, there is nothing wrong with using high school elective course options to find your niche or to explore your talents. On the other hand, you may find an interest and use your elective options to pursue **sequences of study** over a two or three year period rather than simply taking a course for one year and taking an unrelated course in the next year. Pursuing sequences of study will most often result in sophisticated understandings and skills in which you can feel confident and upon which you can begin to make plans for future education and employment. These sequences can be found in all elective areas. Examples of sequences of study are:

Art

Drawing I
 Drawing II
 Major Art

Business

Economics
 Marketing (DECA)
 Business Management

Child Study

Child Development
 Child Study
 Advanced Child Study

World Languages

French I
 French II
 French III

Machine Technology

Machine Technology I
 Machine Technology II
 Machine Technology III

Music

Music Theory I
 Music Theory II
 MusicHistory/BachtoRock

21st Century High School Exploratory CP 1 2.5 credits

This required, freshmen-only 1st semester course is an introduction to the sequence of skills essential to successfully develop into a life-long learner in today’s multi-faceted society. Students will complete skills and content based assignments in fifteen elective areas of study, including Guidance, Culinary, World of Children, Cabinet Making, CAD, Art, Photography, Clayworks, Jr. ROTC-Character Education, Music, Library, and the Automotive, Electrical, Machine, and Carpentry tech-labs. Instruction will also place paramount emphasis on inculcating students with Gloucester High School’s academic and social standards, and clearly communicating strategies that equip students with an enduring understanding of how to adhere to those standards.

The Course Catalog

DEFINITION OF TERMS

Course Title

Name of the course

Course Number

Number assigned for computer and transcript purposes

Level

There are six proficiency levels: *Advanced Placement, Honors, College Preparatory 1, College Preparatory, College Preparatory 2, and Core.*

Level denotes knowledge/skill requirements, work volume, and degree of individualization.

Classes per Week

Number of times the class meets per week

Credits

Year long courses offer 5, 10 or 15 credits depending on the number of days and blocks they meet each week. Half-year courses earn 2.5 credits.

Prerequisite

A course or necessary step that must have been taken before this course can be elected

Co-requisite

A course that must be taken at the same time as this course

English

Students must pass four years (grades 9-12) of English to graduate from Gloucester High School. All students must take and pass English 9, English 10, and English 11. During senior year students must pass an *English 12 Requirement*.

In order to provide all GHS students with an English experience which has high expectations and develops high order thinking skills, the required English 9, 10 and 11 programs are offered at several levels: Honors, College Preparatory I, College Preparatory II and Core Each level is designed to provide appropriate instruction for students of varying skill levels. Teacher recommendations at each grade level are made on the basis of each student's ability and performance during the current school year. All required English classes meet for two semesters 5 times per week and earn 5 credits.

ENGLISH 9

Course Number 011

Level: Honors

Credits 5

Prerequisite: Minimal score on G.H.S. English Department entrance rubric

Students electing this course should have strong verbal ability and an avid interest in English. Students will read extensively and will develop analytical reading and writing skills. Comprehension, vocabulary, speaking and listening abilities will be reinforced. A thematic approach will provide students with materials that will introduce the elements and styles of the various literary genres: novel, short story, poetry and play. Library and research skills will be strengthened

ENGLISH 9

Course Number 012

Level: College Prep 1

Credits 5

This course is designed to improve and further develop reading, writing, vocabulary, speaking and listening skills. The development of paragraph and essay structures is the primary focus of the writing program. A thematic approach will provide students with literature that will include elements and styles of various literary genres: novel, poetry, short story, and play.

ENGLISH 9 **Course Number** **013**
Level: College Prep 2 **Credits** **5**
 This course is a structured program designed to provide a variety of learning experiences that will further develop students' reading, writing, vocabulary, listening and speaking skills. Development of paragraph and essay structures will be stressed in the writing program. A thematic literature program will include various literary genres: novel, short story, poetry and play

ENGLISH 9 **Course Number** **910**
Level: Core **Credits** **5**
Prerequisite: Recommendation of the G.H.S. Special Needs Department
 This course combines the ninth grade curriculum with remedial instruction in reading comprehension, vocabulary, and written language skills. Development of correct sentence and paragraph structure will be stressed in the writing program. Specific focus areas also include grammar, short stories, plays, novels, and poetry.

ENGLISH 10 **Course Number** **021**
Level: Honors **Credits** **5**
Prerequisite: *Minimal score on G.H.S. English Department entrance rubric*
 This program is a challenging course designed for students who have demonstrated strong verbal ability, excellent performance in English 9 and are enthusiastic about reading and writing. The curriculum focuses on the development of strong analytical, critical and evaluative writing, reading and thinking skills. The further development of vocabulary, listening and speaking skills will also be stressed. Library and research methods will be explored further. A thematic approach to the study of American essays, short stories, poems, novels and plays will provide the students with an understanding of their American heritage.

ENGLISH 10 **Course Number** **022**
Level: College Prep I **Credits** **5**
 This course is designed to further develop the analytical and evaluative literary skills of four-year college-bound students. The focus of the writing program will be preparation for the MCAS and SAT long and short essay forms. Library and research methods will be fine-tuned. Vocabulary, listening and speaking skills will be stressed. A thematic study of American literature will provide students with an understanding of their American heritage.

ENGLISH 10 **Course Number** **023**
Level: College Prep 2 **Credits** **5**
 This course is a structured program designed to develop, improve and strengthen writing, reading, vocabulary, speaking and listening skills. Development of paragraph and essay formats will be stressed. MCAS preparation will be an emphasis. Students will learn to manage library and research skills. The literature will focus on the further development of analytical and evaluative reading skills through a thematic study of American literature.

ENGLISH 10 **Course Number** **909**
Level: Core **Credits** **5**
Prerequisite: *Recommendation of the G.H.S. Special Needs Department*
 This course combines tenth grade curriculum with continued remedial instruction in reading comprehension, vocabulary, and written language. The writing program reviews sentence and paragraph structure and moves into the development of the five-paragraph essay. Students will learn library and on-line research skills. Specific focus areas for this course include MCAS preparation and short stories, novels, plays, and poetry based on American literature.

ENGLISH 11 **Course Number** **031**
Level: Honors **Credits** **5**
Prerequisite: *Minimal score on G.H.S. English Department entrance rubric*
 This challenging course is designed for students who have demonstrated high achievement in their previous English classes. The curriculum continues to focus on the development of strong analytical, critical, evaluative and creative writing and thinking skills. Library and research techniques will be reinforced, and a

research paper written in conjunction with the literature will be required. A thematic study of British literature will provide students with a study of the plays, poems, novels, essays and short stories of major British writers

ENGLISH 11 **Course Number** **032**
Level: College Prep 1 **Credits** **5**

This course is designed to help students further develop their analytical, evaluative, and creative writing and thinking skills. The writing program will stress the development of expository, narrative and persuasive essays. The continued study of library and research techniques will enable the students to write research papers in conjunction with the literature program. A thematic approach to British literature will provide students with a study of representative plays, short stories, novels, poems and essays of selected British authors.

ENGLISH 11 **Course Number** **033**
Level: College Prep 2 **Credits** **5**

This course is designed to further develop, strengthen, and reinforce the writing, thinking, listening, vocabulary and speaking skills developed in grades 9 and 10. The writing program highlights expanded study of the essay form. Library and research skills are fine-tuned to enable students to write a research paper. The literature component will help students to develop their reading skills through a study of the plays, poems, novels and short stories of major British writers with an emphasis on contemporary writers.

ENGLISH 11 **Course Number** **925**
Level: Core **Credits** **5**

This course integrates Mass. Curriculum frameworks with focused instruction in reading comprehension, vocabulary, and written language. The writing program reviews sentence and paragraph structure. Students will learn library and on-line research skills. Specific focus areas for this course include transition skills to college and/or the workplace.

English 12 Requirements

The following courses fulfill the English 12 requirement for graduation:

AP ENGLISH LITERATURE AND COMPOSITION **Course Number** **072**
Level: Advanced Placement **Credits** **5**

Prerequisite: AP application and minimal score on the G.H.S. English Department entrance rubric

A rigorous course for students who desire college level challenge and who are willing to invest time, energy and talent to achieve success, this course demands comprehensive reading and sophisticated writing skills. Students will examine novels, short stories, poetry and drama. Students will explore writing styles, linguistic devices, literary techniques, and actively partake in class discussion. Students will be required to complete an intensive reading and writing regimen during the summer previous to their senior year.

HUMANITIES **Course Number** **042**
Level: Honors **Credits** **5**

Prerequisite: Minimal score on the G.H.S. English Department entrance rubric

This course is a demanding course for the student who has demonstrated a high level of proficiency in reading, writing, and thinking skills. Students will continue to develop and demonstrate mature analytical, critical, evaluative, and creative writing and thinking proficiencies. Through a thematic approach to the study of specific literary and philosophic works, students will write analytical, critical and evaluative papers in order to gain insight into author's purpose and into their own quest for self-understanding.

AUTHORS OF THE AMERICAS **Course Number** **043**
Level: College Prep 1 **Credits** **5**

This comprehensive literature study will focus on the study of authors of the Americas. Ideas, styles, philosophies and contributions of each author will be studied in terms of the cultural, historical, and literary

movements of their societies and cultures. This course is designed to prepare students for the writing tasks demanded of them beyond high school. Students will explore and evaluate ideas and literature through essays and reflective writing, prepare short documented papers, study techniques for answering essay test questions, write descriptive sketches and fine-tune proofreading and editing skills.

WORLD LITERATURE **Course Number** **049**
Level: College Prep 1 **Credits** **5**

This course is designed for students who enjoy multi-cultural literature. The student will read a variety of genres that include writers from around the world. Students will be prepared for writing tasks demanded beyond high school as they explore and evaluate ideas and literature through essays and reflective writing. They will prepare short documented papers, study techniques for answering essay test questions, write descriptive sketches and expand proofreading and editing skills.

LITERATURE BY WOMEN **Course Number** **045**
Level: College Prep 1 **Credits** **5**

This course examines literature by women and explores the changing roles of women throughout the 19th and 20th centuries. Students will read and analyze works in various literary genres including works by authors such as Austen, Carter, Wolfe, Kincaid, Angelou, Morrison, Bronte, Naylor and Tan. This course will prepare students for the writing tasks demanded of them beyond high school. Students will explore and evaluate ideas and literature through the writing of essays and reflective papers, by preparing short documented papers, and by creating descriptive sketches. They will extend proofreading and editing skills.

READING AND WRITING BEYOND HIGH SCHOOL **Course Number** **047**
Level: College Prep 2 **Credits** **5**

This course focuses on practical English skills necessary for the student who is preparing for a business-related career after high school or a business or vocational college experience. The writing component will include college essays, business letters, technical reports, job applications, cover letters, resumes, proposals, memos, e-mails, and contracts. Reading will focus on practical information related to success after high school. Workplace skills including organization, grammar, punctuation, and appropriate communication skills will be emphasized.

ENGLISH 12 **Course Number** **925**
Level: Core **Credits** **5**

This course combines Mass. English/Language Arts Frameworks with continued instruction in reading comprehension, vocabulary, and written language. The program emphasizes organization, grammar, punctuation and appropriate communication skills for transition to college and/or the workplace.

English Electives

**These courses do not fulfill the grade 12 English requirement.
English electives are open to all students.**

WRITERS' WORKSHOP **Course Number** **051**
Level: College Prep **Credits** **2.5**

Writers' Workshop is designed for those students who enjoy writing for pleasure and exhibit a talent and an interest in writing creatively. Students may elect the course as often as they like any semester in grades ten, eleven, and twelve. Students will read a variety of genres and styles and create original work within diverse genres (short story, poetry, journalism, for example). Work created within the class may be submitted for publication in the school's literary magazine, *The Elicitor*.

JOURNALISM WORKSHOP **Course Number** **066**
Level: College Prep **Credits:** **2.5**

school work.

ALGEBRA 1

Level: College Prep 1

Course Number 212
Credits 5

This course emphasizes algebraic language, structure, concepts and skills. Topics include algebraic properties and operations, linear equations and inequalities and their graphs, systems of linear equations and their graphs, exponents, polynomials and factoring, probability and statistics.

GEOMETRY

Level: Honors

Course Number 221
Credits 5

Prerequisite: *Algebra 1 and teacher recommendation*

This course gives a foundation of postulates and definitions essential to understanding geometric situations. Discovery and thinking is stimulated by the use of geometric and logical patterns. Synthetic methods and coordinates are used in proving statements. Assessment: Homework, class work, quizzes, tests, alternative assessment strategies, mid-year and final exam. Course required for college preparation.

GEOMETRY

Level: College Prep 1

Course Number 222
Credits 5

Prerequisite: *Algebra 1*

This course gives a foundation of postulates and definitions essential to understanding geometric situations. Discovery and thinking is stimulated by the use of geometric and logical patterns. Assessment: Homework, class work, quizzes, tests, alternative assessment strategies, mid-year and final exam. Course required for college preparation.

FOUNDATIONS OF COLLEGE MATH

Level: College Prep 2

Course Number 230
Credits 5

Prerequisites: *Geometry, Algebra 1, and teacher recommendation*

The focus of this course is to review and master the concepts and skills of Algebra 1 and to extend the knowledge of functions and their graphs. This course is recommended for juniors and seniors who have not passed Algebra 1 and Geometry with at least a 70. Upon completion of this course students will have the requisite knowledge and skills needed for Algebra 2.

ALGEBRA 2

Level: Honors

Course Number 231
Credits 5

Prerequisite: *Geometry Honors or Geometry and teacher recommendation*

This course is a continuation of the math honors program. The course stresses mathematical concepts, definitions and proofs and their application to actual problems, rather than just performing basic math techniques. The course covers such subjects as quadratic equations, complex numbers, sequences and series, conics and logarithms. Assessment will be based on homework, class work, quizzes, tests, alternative assessment strategies, mid-year and final exam.

ALGEBRA 2

Level: College Prep I

Course Number 232
Credits 5

Prerequisite: *Geometry, Algebra I*

The course focuses on the families of functions including linear, quadratic, power, rational, exponential and logarithmic, conic sections, and the extension of the number system to a complex field.

TRIGONOMETRY & PRE-CALCULUS

Level: Honors

Course Number 241
Credits 5

Prerequisite: *Geometry, Algebra 2, and teacher recommendation*

This course is a continuation of our honors math program, and it presents and develops topics for calculus. The course teaches the properties, origins and uses of trigonometric functions. Specific topics include; Linear velocity and motion, trigonometric identities, laws of the sine and cosine, area of triangles, vectors in 2 and 3 dimensions.

Pre-Calculus advances the study of Algebra and introduces concepts involving function operations, curve

final exam, quizzes and homework, participate in learning groups and in class discussions.

FOUNDATIONS OF ALGEBRA PART 2

Level: Core

Course Number

901A

Credits

5

This course provides a more in depth presentation of algebra and preliminary geometric concepts. The curriculum for this course focuses on using graphs to analyze data, using real numbers and using equations in geometry. Students are required to maintain a “Master Notebook”, complete tests including a midterm and a final exam, quizzes and homework, participate in learning groups and in class discussions.

AP CALCULUS AB

Level: Advanced Placement

Course Number

261

Credits

5

Prerequisite: *Trigonometry & Pre-Calculus (Application and teacher recommendation required)*

The topics in this course prepare students for the Advanced Placement examination in Calculus AB.

Assessment: Homework, class work, quizzes, tests, unit summaries and performance tasks.

AP CALCULUS BC

Level: Advanced Placement

Course Number

261c

Credits

5

Prerequisite: *Trigonometry & Pre-Calculus (Application and teacher recommendation required)*

The topics in this course prepare students for the Advanced Placement examination in Calculus BC.

Assessment: Homework, class work, quizzes, tests, unit summaries and performance tasks.

CALCULUS

Level: College Prep 1

Course Number

251

Credits

5

Prerequisite: *Trigonometry & Pre-Calculus*

This course explores analytical geometry and functions of one variable. There is an introduction to such topics as inequalities; absolute values, intervals and neighborhoods, limits, infinite series, and differential equations; differentiation and integration laws covered for all types of functions. Assessment: Homework, class work, quizzes, tests, alternative assessment strategies, mid-year and final exam.

AP STATISTICS

Level: Advanced Placement

Course number

266

Credits

5

Prerequisite: *Completion of Geometry and Algebra 2 (Application and teacher recommendation required)*

The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes:

Exploring Data: Observing patterns and departures from patterns

Planning a Study: Deciding what and how to measure

Anticipating Patterns: Producing models using probability theory and simulation

Statistical Inference: Confirming models.

PROBABILITY AND STATISTICS

Level: College Prep 1

Course Number

267

Credits

5

Prerequisite: *Completion of Algebra 2*

The purpose of this course is to introduce students to the major concepts and tools for collection, analyzing, and drawing conclusions from data. This class is intended for seniors. Juniors may take this class concurrently with Trigonometry and Pre-Calculus or with teacher recommendation.

COLLEGE BOARD AND SAT PREPARATION

Level: College Prep

Course number

252

Credits

2.5

This course will provide a review of the algebra, geometry, statistics and reasoning skills needed for Scholastic Aptitude Test (SAT) and/or college entrance exams. The course will also focus on test taking strategies and preparation techniques. It is intended for junior or senior students prior to taking the SAT or college entrance exams.

MCAS MATHEMATICS WORKSHOP

Course Number 280
Credits 2.5

The course offers individualized diagnosis and instruction in patterns and algebra, number sense, geometry, measurement, and probability and statistics as well as organizational and study strategies to prepare students to successfully succeed at their optimum performance level on the Massachusetts Mathematics MCAS.

Science

All students are required to take and pass three years of science. In addition, all students must pass a Massachusetts Comprehensive Assessment System (MCAS) examination in one science subject areas (Biology, Chemistry or Principles of Technology) in order to graduate.

Life Sciences

ANATOMY & PHYSIOLOGY

Level: Honors

Course Number 345H
Credits 5

Prerequisite: Passing grade in Biology and Chemistry

Honors Anatomy & Physiology is an intensive, advanced level course designed for self-motivated students. This course will explore the biology of the human body. It examines the structure of cells, tissues, and organs that make up our bodies, and will examine how these components function. Basic biological and chemical principles vital to the understanding of the human organism will be introduced, followed by an introduction to the study of the structures and functions of the human body. Systems covered will be the skeletal, muscular, nervous, endocrine, cardiovascular, respiratory, immune, digestive, urinary, and reproductive systems. Related topics such as diseases and clinical problems will be integrated where applicable.

ANATOMY & PHYSIOLOGY

Level: College Prep I

Course Number 345
Credits 5

Prerequisite: Passing grade in Honors Biology or College Prep I Biology

This course will explore the biology of the human body. It examines the structure of cells, tissues, and organs that make up our bodies, and will examine how these components function. Basic biological and chemical principles vital to the understanding of the human organism will be introduced, followed by an introduction to the study of the structures and functions of the human body. Systems covered will be the skeletal, muscular, nervous, endocrine, cardiovascular, respiratory, immune, digestive, urinary, and reproductive systems. Related topics such as diseases and clinical problems will be integrated where applicable.

AP BIOLOGY

Level: Advanced Placement

Course Number 320
Credits 10

Prerequisite: Passing grades in Chemistry and Biology and the completion of an AP application.

Advanced Placement Biology is designed for the student who intends to choose biology or a related science as a course of study in college. The course will provide in-depth knowledge of various aspects for biology and a chance to learn research techniques relevant to each. Guided and independent laboratory work will be an integral part of the course. Selected topics include cytology, genetics, botany, zoology, biochemistry, population studies, and Ecological studies.

BIOLOGY HONORS

Level: Honors

Course Number 321
Credits 5

Prerequisite: Freshmen must pass entrance exam.

Honors Biology is an intensive, advanced level course designed for self-motivated students. This laboratory-oriented class will explore the science of life through a molecular and cellular approach. Topics covered will

be biochemistry, cell structure and function, bioenergetics, origin of life and evolution, genetics, ecology and the human body. Laboratory reports will be generated on a weekly basis as laboratory activities are performed. Individual research projects will be assigned each term. This course is rigorous and recommended only to students who are committed to academic excellence. Students taking this course must also register for Technology in Biology Honors (540)

BIOLOGY **Course Number** 322
Level: College Prep I **Credits** 5

College Prep Biology is a course intended for college bound students. This laboratory-oriented class will explore the science of life through a molecular and cellular approach. Laboratory reports will be generated on a weekly basis as laboratory activities are performed. The same topics as Honors Biology will be covered at a less rigorous pace. Students taking this course must also register for Technology in Biology-College Prep (544).

BIOLOGY **Course Number** 325
Level: College Prep 2 **Credits** 5

****Prerequisite: Must be at least second year in high school*

College Prep Biology is a course intended for college bound students. This laboratory-oriented class will explore the science of life through a molecular and cellular approach. Laboratory reports will be generated on a weekly basis as laboratory activities are performed. The same topics as CP I Biology will be covered at a less rigorous pace. Students taking this course must also register for Technology in Biology-College Prep (544).

LIFE SCIENCE **Course Number** 304
Level: College Prep 2 **Credits** 5

Prerequisite: Offered to incoming freshmen only

This course focuses on patterns of thinking that apply to biological communities and individual organisms. Time is devoted to special topics which include ecology, biomes, populations, communities and behavioral patterns. Special emphasis is placed on the development of study habits, test taking strategies, and master notebook development.

ECOLOGY **Course Number** 362
Level: College Prep **Credits** 2.5

Prerequisite: Must have passed 5 credits from the freshman level

This course is designed to build a student's appreciation of the delicate balance of nature through the study of contrasting environments such as desert, forest, tundra, grasslands, and wetlands. Emphasis will be placed on plant and animal adaptations as well as predatory/prey relationships. Man's effect on nature will also be researched through discussion on current environmental issues.

MARINE BIOLOGY **Course Number** 352
Level: College Prep **Credits** 2.5

Prerequisite: Passing grade in ninth grade science

Marine Biology is an introduction to the biology of marine organisms. Selected organisms will be used to develop an understanding of the biological principles common to marine organisms. The taxonomy, evolution, ecology, behavior, and physiology of marine life will be discussed. Lectures, demonstrations, videos, and local field trips will stress the identification of local marine forms. Special focus will be on the plants and animals of the rocky shore.

OCEANOGRAPHY **Course Number** 347
Level: College Prep I **Credits** 5

Prerequisite: Passing grade in Biology

This course will focus on the physical, chemical, and biological aspects of the ocean. Students will gain an

appreciation of the ocean and the role it plays in making life on Earth possible. Topics covered include: Topography, geology, water chemistry, air sea interaction, ocean circulation, waves, tides, the marine environment, biological productivity, marine life, marine resources, and pollution. Independent research is an integral part of this course.

ISSUES IN HEALTH **Course Number** 346
Level: College Prep 2 **Credits** 5

Prerequisite: Must have passed 5 credits from freshmen level.

This course is offered to juniors and seniors only.

This is a full year course that deals with both the emotional and physical development of the adolescent as well as problems that may occur in modern life. Topics included for discussion are: drugs, alcohol and tobacco use, mental health, human sexuality, parenting, child abuse, nutrition, stress management, modern day life styles, divorce, death, and common diseases. The course includes physicians, nurses and psychologists from the North Shore speaking on topics including child abuse, alcoholism, battered women, rape hot-line, assertiveness training, and family planning,

HEALTH **Course Number** 920
Level: Core **Credits** 5

The course curriculum includes violence prevention, mental health, drug use and abuse, human sexuality, life skills, physical well being, and disease among other health topics. Individual and group projects, quizzes, tests, midterm and final exams are required.

Physical Sciences

APPLIED TECHNOLOGY & ENGINEERING **Course Number** 311
Level: College Prep 2 **Credits** 5

Prerequisite: 5 Science credits from the freshman level. Open only to sophomores or students who need an MCAS preparation class.

Applied Technology & Engineering is designed for students interested in technical careers and technical colleges. Through the use of lectures, demonstrations, projects and weekly hands-on laboratory experiences the student will gain knowledge in the following areas: engineering design, marketing, research and development, time management, leadership, product testing drafting and presentation. Students will develop an understanding of mechanics, fluid dynamics, electricity, forces and construction. The class is designed to prepare students for passing the Engineering and Technology MCAS Test.

ASTRONOMY **Course Number** 363
Level: College Prep I **Credits** 5

Prerequisites: Juniors and seniors only; minimum FINAL grade of 80 in Algebra 2

This course will cover the history of astronomy from Aristotle until today; the development and use of telescopes and other tools of astronomers; the formation and current state of the solar system; basic astrophysics including planetary motion, Newton's law of gravitation, and Kepler's Laws; stellar evolution. Also covered is the electromagnetic spectrum and its use in studying celestial objects. The course will conclude with exciting contemporary topics such as black holes, the expansion of the universe and the search for extraterrestrial life.

AP CHEMISTRY **Course Number** 335
Level: Advanced Placement **Credits** 10

Prerequisite: Passing grades in Chemistry, Biology, and Algebra II and completion of an AP application

AP Chemistry is designed for the serious student who intends to pursue the study of science or engineering in college. The course will review topics covered in the first year of chemistry and then continue in depth study of chemical bonding, reaction mechanisms, oxidation-reduction, electrochemistry, kinetics, and introductory organic chemistry. There will be extensive laboratory work.

CHEMISTRY **Course Number** 331
Level: Honors **Credits** 5

Prerequisite: *Must have passing grade of a B or better in Biology. Must have passed Algebra II or be taking Algebra II concurrently*

This is an accelerated and expanded version of Chemistry 332. All usual topics will be covered in detail and expanded to include oxidation, reduction, nuclear chemistry, and pH as well as an introduction to organic and biochemistry.

CHEMISTRY	Course Number	332
Level: College Prep I	Credits	5

Prerequisite: *Must have passing grade in Biology. Must have passed Algebra I.*

Chemistry is intended to provide a solid foundation for college bound students pursuing a career in science or medicine and also as a general background for students planning non-science careers. As a lab course this course deals with the concepts of mass, matter, and energy, modern atomic and nuclear theory, the nature of chemical bonds, chemical reaction systems, chemical calculations, and general laboratory methods and techniques. Grades are based on lab reports, regular homework, tests, and two semester final exams.

CHEMISTRY	Course Number	332b
Level: College Prep 2	Credits	5

Prerequisite: *Must have passing grade in Biology. Must have passed Algebra I*

Chemistry is intended to provide a solid foundation for college bound students pursuing a career in science or medicine and also as a general background for students planning non-science careers. This course deals with the concepts of mass, matter, and energy, modern atomic and nuclear theory, the nature of chemical bonds, chemical reaction systems, chemical calculations, and general laboratory methods and techniques. Grades are based on lab reports, regular homework, tests, and two semester final exams. The same topics are covered as CPI chemistry but with less depth and a less rigorous pace.

EARTH STUDY	Course Number	903
Level: Core	Credits	5

This course includes the study of measurement and conversion, forces, motions, energy, particles of matter, periodic table, heat, electricity and electromagnetism, waves, sound, light, and technology. Individual and group projects, quizzes, tests, and midterm and final exams are required.

AP PHYSICS	Course Number	336
Level: Advanced Placement	Credits	10

Prerequisites: *Students must have taken or currently be taking calculus. Completion of an AP application is mandatory.*

This course is intended to prepare students to more readily pursue studies in engineering or the physical sciences at the college level. The course has earned the College Board's designation for Physics C which covers an area of physics called mechanics. Topics include two- and three-dimensional motion, forces, work and energy, linear and angular momentum, gravitation, and oscillations. This course is intended to prepare students to successfully complete the AP Physics exam. Attendance at summer sessions and completion of summer assignments may be required.

PHYSICS	Course Number	341
Level: Honors	Credits	5

Prerequisite: *Students must have completed Honors Algebra 2 or have received at least an 85% or better in CPI Algebra 2, and should have completed or be taking Trigonometry & Pre-Calculus (preferably Honors)*

Recommended for students entering the field of science, engineering, medicine, or mathematics. Physics Honors is an intensive, lab-oriented course which will introduce students to topics in mechanics, thermodynamics, wave phenomena, electricity and magnetism, and modern physics. Emphasis is on the application of intermediate mathematics to problem solving, and the practical applications of ideas to real world situations.

PHYSICS	Course Number	342
Level: College Prep I	Credits	5

Prerequisite: *Students must have completed Algebra 2 and should have completed or be concurrently taking Trigonometry & Pre-Calculus.*

This course is an intensive, application of physics; and is designed for students who are planning to attend a four year college, especially those interested in Engineering majors. This physics class is highly kinesthetic; students will work in teams to achieve greater understanding of concepts, with an emphasis on problem solving. Topics covered include: Newtonian physics, projectile motion, thermodynamics, electricity, electronics, relativity and quantum mechanics. Students will be assessed on their labor intensive Labs, covering Rocketry and submarine R.O.V (remote operated vehicle). The ability to work in teams is a must.

PHYSICS of ROBOTICS

Course Number 343

Level: College Prep I

Credits 5

Prerequisites: *Passing grade in freshman and sophomore level science course, as well as a passing grade in Algebra I*

This course will introduce students to robotics and cover a gambit of topics (simple and complex circuitry, design and building, CAD, “C” programming, autonomous programming, remote control, robotic theory, Logic and artificial intelligence (A.I.)). Physics topics covered will be forces, fluids, momentum, and mechanics, electronics, electromagnetic waves, hydraulics, pneumatics, gears, torque and Classical Newtonian Physics. This will be a hands-on course for students interested in engineering and or technical college. Students will design, build and program, from concept to completion a remote controlled vehicle. ***This class can not be taken for MCAS preparation.***

PHYSICS FIRST

Course Number 348

Level: College Prep 1

Credits 5

Prerequisite: *Must have completed or currently be taking Algebra I.*

This course introduces students to “Classical” Newtonian Physics. Students will learn about forces, motion, and energy. They will explore velocity, acceleration, free-fall, momentum, work, power, simple machines, sound, light and electricity. Students will be assessed on their written labs, cumulative examinations, projects, homework, and master notebooks. This class is recommended for students in grade 9 who are following the college preparatory sequence and students who are planning to take the Engineering and Technology MCAS in their sophomore year. It is recommended that all students entering the Vocational program take this course.

Note: This class requires basic formula manipulation, and therefore, it is recommended, but not required, that students be taking Algebra I.

Social Studies

All students are required to take and pass three years of Social Studies including U.S. History 9, U.S. History 10 and World Regions and Cultures.

UNITED STATES HISTORY Grade 9 (1400-1877)

Course Numbers: 111U (Honors)
112U(Coll.Prep1)
113U(Coll.Prep2)
913(Core)

Levels: Honors, College Prep 1, College Prep 2, Core **Credits** 5

United States History-9 is a concept-based approach to the study of the historical and intellectual origins of the United States. Students will learn about important developments that helped shape American society during its early history. Study will include exploration of a new world, causes for colonial conflict, revolution for independence, the key ideas and writing of the United States Constitution, the sectional differences, causes, and consequences of the Civil War and Reconstruction.

UNITED STATES HISTORY Grade 10 (1877-2001)

Course Numbers: 121U(Honors)
122U(Coll.Prep1)
123U(Coll.Prep.2)
914(Core)

Levels: Honors, College Prep 1, College Pre .2, Core **Credits** 5

United States History-10 students will analyze the causes and consequences of the Industrial Revolution and America's growing role in diplomatic relations. Other topics of study include the Progressive movement, the New Deal, World Conflict, the Cold War, and the Civil Rights movement. Students will also engage in a study of economic, social, and political issues of the second half of the 20th century.

WORLD REGIONS & CULTURES Grade 11

Course Numbers: 185(Honors)
186(CollPrep1)
187(CollPrep2)

Levels: Honors, College Prep 1, College Prep 2 **Credits:** 5

The purpose of this course is to present the student with an overview of the world we live in. The course will begin with a study of political and economic systems. Within each regional study, the student will be exposed to the major historical events that have influenced its development, with a focus on 20th century events as well as contemporary issues. In addition, the course will examine cultural features including government, religion, language, and traditions. Students will engage in interactive exercises to evaluate the impact of the new global paradigm within the world's regions.

ADVANCED PLACEMENT US HISTORY

Course Number 143
Credits 5

Level: Honors

AP U.S. History is an in-depth examination of United States History: Colonization, Revolution, Constitution, Jacksonian Democracy, Civil War, Industrialization, Westward Expansion, Imperialism, Progressive Era, WW I, Depression, New Deal WW II, Cold War, Vietnam and Reagan to Clinton. - Assessment will be based on oral and written presentations including research, interpretation, and analysis as well as tests and quizzes.

Social Studies Electives for Juniors and Seniors

INTERNATIONAL RELATIONS

Course Number 141
Credits 2.5

Level: Honors

International Relations is a one-semester elective, which examines "World Hot Spots". Areas of investigation may change but include Northern Ireland, Middle East, Pakistan-India, terrorism and nuclear threats to global peace. Students will be required to relate all previous social studies to current day political problems.

GLOBAL ISSUES

Course Number 150
Credits 2.5

Level: College Prep

Prerequisites: *Completion of at least two of the required history courses.*

Global Issues is an elective course which studies the cultural, religious, economic, and political issues of the major trouble spots in today's complex world. The course will give students a working knowledge of an ever-changing world. Students will discuss, compare, and contrast major issues facing world leaders.

PSYCHOLOGY

Course Number 153
Credits 2.5

Level: College Prep

Psychology is an elective which studies the human personality and its thought processes. Principles of study include learning, memory, testing, sensation, abnormal psychology, motivation, and emotions

MASS MEDIA IN THE MODERN AGE

Course Number 155

Level: College Prep **Credits** 2.5
 This is a semester elective designed to examine and analyze the history of the twentieth century through the use of different forms of media. The course will focus primarily on the impact of film and will also include other forms of media such as music, TV, radio, and the internet. Students will study the history of the past one hundred years by analyzing and evaluating various examples of mass media from the different periods. For example, students may be asked to discuss analyze the differences between among issues facing teens today with those which teens dealt within the 1950s. Students will view movie presentations of these issues to critique, draw conclusions and establish connections

COMPARATIVE RELIGIONS **Course Number** 158
Level: College Prep **Credits** 2.5
 Comparative Religions is a one-semester course designed to survey the world's great religions. Discussion will include the origins, rituals, theology, and teachings of Hinduism, Taoism, Shintoism, Confucianism, Judaism, Christianity, and Islam. Speakers from Christian Science, Jehovah's Witness, Islam, Roman Catholicism, Judaism, and Hinduism are invited to speak.

SOCIOLOGY **Course Number** 162
Level: College Prep **Credits** 2.5
 Sociology is the study of human behavior, interaction, and society. Major areas of emphasis include culture, crime, the family, gender issues, socialization, schools, politics, and current "hot social issues".

WOMEN'S ISSUES **Course Number** 161
Level: College Prep **Credits** 2.5
 This study includes the exploration of women's roles in society. Included will be an investigation of the role of women in the household, business world, and government. Controversial discussion will include sexual harassment, date rape, domestic abuse, the glass ceiling, women in management positions, gender discrimination and affirmative action.
Priority is given to seniors and juniors.

ISSUES IN AMERICAN SOCIETY **Course Number** 151
Level: College Prep **Credits** 2.5
 This course focuses on the challenges of American life. Crime, drugs, violence, health care and welfare reform are some of the issues that will be analyzed. Contemporary politics will be a key feature of this class.

Foreign Languages

The Foreign Language Department highly recommends that college-bound students elect the same language for a minimum of two consecutive years. It may help students pass college placement exams, exempt a student from a college requirement, and facilitate the study of the language at advanced levels.

Placement in honors classes is at the recommendation of the teacher.

Homework is assigned in all language classes on a daily basis. Student evaluation is based on a combination of frequent quiz and test grades, completion of homework and class assignments, and midterm and final exam grades.

French

FRENCH I

Level: College Prep

Course Number 411

Credits 5

This is a first year course of a 4-year college preparatory sequence. The basic structure of the French language and the culture of France are introduced. Emphasis is placed on vocabulary building, grammar, pronunciation, elementary reading, and listening comprehension.

FRENCH II

Level: College Prep

Course Number 412

Credits 5

Prerequisite: *French I*

French II is a continuation of French I. More intricate forms of the language structure are introduced. Emphasis continues to be placed on a command of the language as well as on French culture. More complex readings are introduced and developed. Writing skills are stressed.

FRENCH III

Level: College Prep

Course Number 413

Credits 5

Prerequisite: *French II*

This course may be selected as French III Honors if all the students agree to participate. French III is a continuation of French II. All major concepts of the structure of the language are covered. More complex grammar as well as more complex readings are introduced. Students will express themselves, both verbally and in writing, on an advanced level.

FRENCH IV

Level: College Prep

Course Number 414

Credits 5

Prerequisite: *French III*

This course is the last year of a 4-year sequence. Students will review basic grammar from previous years. Students will be working toward accurate, sophisticated oral and written expression. Students will be exposed to a historical and literary survey of French history, literature, and culture. Students are required to write journals and short summaries. French films may be used to enhance oral comprehension.

German

GERMAN I

Level: College Prep

Course Number 421

Credits 5

German I is an introductory course in the German Language. The basic structure of the German language and the culture of Germany are introduced. Emphasis is placed on vocabulary building and all four skills of language learning (reading, writing, listening and speaking)

GERMAN II

Level: College Prep

Course Number 422

Credits 5

Prerequisite: *German I*

German II is a continuation of German I. More intricate forms of the language structure are introduced. Emphasis continues to be on further development of the four skills to achieve a greater command of the language as well as on German culture. More complex readings are introduced.

GERMAN III

Level: Honors

Course number 423H

Credits 5

Prerequisite: *Teacher recommendation*

The fundamental grammar concepts learned in the previous two years of the language are reviewed and expanded. The four basic skills are further developed to achieve a greater command of the language in each area. Students will be asked to write summaries and/or essays. Students will be introduced to a variety of short stories and literature of the German language. Students will also focus on geography and culture.

GERMAN III **Course Number** 423
Level: College Prep **Credits** 5

Prerequisite: *German II*

German III is a continuation of German II. The course will provide a review of the concepts learned in the previous two years. It is designed to improve proficiency in all four skills of the language. Vocabulary will be enriched through the reading of short stories and class discussion in the target language.

GERMAN IV **Course number** 424H
Level: Honors **Credits** 5

Prerequisite: *German III Honors and/or teacher recommendation*

This course develops listening and speaking skills to a level where students can demonstrate an understanding of conversational language and hold extended conversations on a variety of topics. The class stresses comprehension of literary texts and sophisticated, accurate written and oral expression. Vocabulary will be expanded through weekly writings on assigned topics. Students will be able to express themselves orally in class discussions on current events. In grammar, the conditional and the subjunctive are introduced and mastered.

GERMAN IV **Course Number** 424
Level: College Prep **Credits** 5

Prerequisite: *German III*

German IV expands on vocabulary and grammar of German III. This course is designed for the serious student of the German language who enjoys speaking and reading in German. The four skills are further developed to achieve a greater command of the language in each area.

GERMAN EXCHANGE SEMINAR **Course Number** 424EP
Level: College Prep **Credit** 1

This course is offered to students involved in the reciprocal student exchange program. Students must attend all preparatory meetings and prepare a presentation for their German hosts. During their home stay in Germany, they must maintain a journal (in German) and provide a multimedia demonstration of their experience upon their return.

Italian

ITALIAN I **Course Number** 432
Level: Honors **Credits** 5

This is a first year class for students who already have some knowledge of the spoken language or Sicilian dialect from home. The emphasis is placed on establishing correct speech patterns and mastering basic grammatical structures. Vocabulary building and simple conversation are included in readings and class exercises. The Italian culture, food, art and people will be studied.

ITALIAN I **Course Number** 431
Level: College Prep **Credits** 5

This is a first year course of a 4-year college preparatory sequence. It is designed for students with no previous knowledge of the Italian language. The emphasis is placed on establishing correct speech patterns and mastering basic grammatical structures. Vocabulary building and simple conversations are included in readings and class exercises. The Italian culture, food, art, and people will be studied.

ITALIAN II Honors **Course Number** 434
Level: Honors **Credits** 5

Prerequisite: *Italian I*

This course is a continuation of Italian I. The major concepts of the structure of the language are reviewed and finer grammatical concepts of the language are introduced. Famous Italian artists and monuments are studied. More sophisticated reading passages are studied. Students will express themselves, both in speaking and writing, on a more complex level.

ITALIAN II **Course Number** 433
Level: College Prep **Credits** 5

Prerequisite: *Italian I*

This course is a continuation of Italian I. More intricate forms of the structure of the language are introduced. Emphasis continues to be placed on speaking, listening comprehension, and the study of the Italian culture. More complex reading passages, as well as writing skills, are introduced and developed. Students will study the past tense.

ITALIAN III **Course Number** 436
Level: Honors **Credits** 5

Prerequisite: *Honors Italian II*

The fundamental grammatical concepts learned in the previous two years of the language are reviewed and expanded. The four basic skills are further developed to achieve a greater command of the language in each area. Students will be asked to write summaries and/or essays. Students will be introduced to a variety of short stories and literature in the Italian language. Students will also focus on geography and culture.

ITALIAN III **Course Number** 435
Level: College Prep **Credits** 5

Prerequisite: *Italian II*

This course will provide students with a review of the Italian grammar learned in the previous two years. The focus of this course is to improve oral proficiency in the Italian language. The course encourages verbal participation in the classroom. Vocabulary will be enriched through short stories and class discussion in the target language.

ITALIAN IV **Course number** 438
Level: Honors **Credits** 5

Prerequisite: *Honors Italian III*

This course develops listening and speaking skills to a level where students can demonstrate an understanding of conversational language and hold extended discourse on a variety of topics. The class stresses comprehension of literary texts and accurate written and oral expression. Vocabulary is expanded through weekly writings on assigned topics. Students will be able to express themselves orally in class discussions on current events. In grammar, the conditional and the subjunctive are introduced and mastered. Portfolio assessment pieces will be collected throughout the year.

ITALIAN IV **Course number** 437
Level: College Prep **Credits** 5

Prerequisite: *Italian III*

Italian IV builds and expands on vocabulary and grammar from Italian III. The vocabulary remains conversational. Students are required to use vocabulary in conjunction with grammar in conversation, oral presentations, compositions and journals. The four basic skills are further developed to achieve a greater command of the language in each area. Comprehension skills are developed through the reading and discussion of short readers. Portfolio assessment pieces will be collected throughout the year.

Spanish

Any student who has previously studied Spanish, or comes from a Spanish speaking home, may be exempt from taking Spanish 1. Please see the program leader for a placement test.

INTRODUCTION TO SPANISH **Course number** 440
Level: College Prep 2 **Credits** 5

This course is an introduction to the language and culture of the Spanish speaking world.

This course is designed mainly for those students who want to take a language at a much slower pace with study skills emphasized. Vocabulary building, language structure and projects are emphasized. Students who successfully complete this course may elect Spanish I the following year.

Note: This course does not fulfill a college entrance requirement.

SPANISH I **Course number** 441
Level: College Prep **Credits** 5

This course is an introduction to the language and culture of the Spanish-speaking world. Emphasis is placed on establishing correct patterns and basic grammatical structures. The vocabulary in the text will immediately allow students to use the language in everyday situations.

SPANISH II **Course number** 443
Level: Honors **Credits** 5

Prerequisite: *Spanish I and recommendation of the teacher.*

This class moves at a faster pace than Spanish II College Preparatory. Speaking and writing are emphasized. Students are expected to take a more active role in their learning of the language. The vocabulary at this level is conversational. Grammar concepts are expanded upon to facilitate students' speaking and writing. Oral comprehension is further developed. Good class attendance and class participation are extremely important.

SPANISH II **Course number** 442
Level: College Prep **Credits** 5

Prerequisite: *Spanish I*

This course is a continuation of Spanish I. Additional grammatical structures are introduced. Vocabulary and grammar structure are reviewed and expanded upon. Students will be able to express themselves orally and in writing in both the present and past. The four basic skills are further developed to achieve a greater command of the language.

SPANISH III **Course number** 445
Level: Honors **Credits** 5

Prerequisite: *Spanish II Honors*

By the end of the school year, students in Spanish III Honors will have studied all the basic grammar points including the subjunctive mood. This class will give students a solid foundation in the language. At this level, writing short paragraphs, and / or compositions is required. Listening and oral skills in Spanish are refined to ensure greater ability for students to communicate in the language. Short readers will be introduced and discussed in Spanish.

SPANISH III **Course number** 444
Level: College Prep **Credits** 5

Prerequisite: *Spanish II*

This course expands upon vocabulary and grammar from the previous two levels. The vocabulary learned at this level is conversational. Students are required to use vocabulary in conjunction with correct grammar in conversation, oral presentations, and short compositions. The four basic skills of the language are further developed to achieve a greater command of the language in each area. This course will focus on the culture of additional Spanish speaking countries.

SPANISH IV **Course number** 447
Level: Honors **Credits** 5

Prerequisite: *Spanish III Honors*

This course is the last year of a 4-year sequence. By the end of the year students will have developed listening and speaking skills that will enable them to demonstrate an understanding of conversational language and give extended discourses on a variety of topics. The class emphasizes sophisticated, accurate oral and written expression. The three major topic areas are literature, conversation, and grammar. In the area of literature, the course content includes a limited survey of literature and civilization with excerpts or complete works from major literary writers of the Spanish-speaking world. New vocabulary is introduced to

reflect and facilitate comprehension of the literature. In grammar, emphasis is on review and expansion of more advanced syntax to improve comprehension and oral expression. Students are required to write journals and short summaries of stories read in class. Films in Spanish may be used to enhance comprehension. (Some students may be recommended for the AP exam)

SPANISH IV **Course number** 446
Level: College Prep **Credits** 5
Prerequisite: *Spanish III*

This course is the last year of a 4-year sequence. Students will review all the basic grammar from the previous years and expand on the use of more advanced grammar. Students will write journals, short compositions, summaries and will give oral presentations. Short story readers in the target language may be used for class discussion. The four basic skills of the language are further developed to achieve a greater command of the language in writing and speaking. By the end of the fourth year, students will have had a solid base in Spanish grammar. This will serve them well in college placement entrance exams. They may be exempted from a college language requirement or be placed in more advanced college courses.

SPANISH V **Course number** 450
Level: Honors **Credits** 5
Prerequisite: *Spanish IV Honors*

This class is recommended for those students who have completed Spanish IV Honors in their junior year, and for Spanish speaking students who can read and write well. In this class students will further develop their language skills in the four major areas. Students will be introduced to authentic Spanish and Latin American literature. Films and other media will be used to further enhance oral understanding of the language. Class will be conducted in Spanish with complex grammatical explanations in English to expedite understanding. (Some students may be recommended for the AP exam)

Health and Fitness

PHYSICAL EDUCATION **Course Number** 572
Credits 2.5

This course focuses on the development of a healthy lifestyle and participation in a variety of enjoyable physical activities that have the potential to engage students' interest throughout their lives. Students apply movement principles and sport/game strategies to refine skills, and actively participate in sports and games to enhance their personal competence and personal fitness. They are encouraged to develop leadership skills and are given opportunities to practice goal-setting, decision-making, social, and interpersonal skills. Classes will be geared toward improving fitness and will involve pre and post physical fitness testing. During one semester of each year students will be able to participate in mini courses in fitness. This course will consist of 2 leisure time physical activities, 2 fitness courses.

Some of these activities may include:

Leisure Time Activities: Tennis, badminton, golf, basketball, paddleball, volleyball, walking, lawn games

Fitness Activities: Cross training, weight training, science of stretching, fitness games, jogging, power walking

HEALTH **Course Number** 580
Credits 2.5

The classroom component will reinforce the concept of physical fitness taught in physical education classes. Students will study the components of healthy relationships, reproductive health, mental health, and personal safety. Topics will include drug education, human sexuality issues, and domestic and dating violence.

LIFEGUARD TRAINING COURSE	Course Number	576
American Red Cross Certification Course	Credits	2.5

This course is for juniors and seniors who have the ability to swim 500 yards without stopping. There will be 28-30 hours of class instruction and pool time. Classes will be held after school. Pool time will be at the Lydon Aquatic Center in Danvers.

Course Costs: \$100 for American Red Cross fee and materials

This course meets the health and fitness requirement

Business and Technology

Students must complete one Technology course to be eligible for graduation. The course offerings in the Gloucester High School Business Department provide a foundation for success for *all* students, no matter what their ultimate goals in life may be. These course offerings are aligned with the Massachusetts Instructional Technology Frameworks and the National Standards for Business Education.

REAL WORLD COMPUTER SKILLS I	Course Number	535
Level: College Prep	Credits	2.5

Students will learn the fundamentals of keyboarding using the “touch typing” method of word processing, utilizing the entire keyboard with correct finger usage for both speed and accuracy. Students will learn how to properly format documents and reports using Microsoft word functions with an emphasis on producing business documents including resumes, applications, cover letters, and integrated projects.

REAL WORLD COMPUTER SKILLS II	Course Number	536
Level: College Prep	Credits	2.5

Prerequisite: *Real World Computer Skills*

This semester course must be scheduled for students who do not take Biology. Students will be introduced to database management using Access database and advanced Microsoft and Photoshop applications as they apply to various “real-world” projects and integrate their current coursework with technology. Microsoft Office Certification is offered.

TECHNOLOGY IN BIOLOGY	Course Number	540(H), 544(CP)
Level: Honors, College Prep	Credits	5

This business and science integrated course presents activities that link technology skills to Biology concepts. This project-based approach to learning will teach current technology applications such as “Word” for processing biology information, “Power Point” for communicating biology concepts, “Excel” for data collected in science lab and the creation of math formulas, and “Access” for organizing and searching through customized biology databases. The internet is also used to teach researching skills collectively to actively integrate current lessons for learning.

BUSINESS MATH I	Course Number:	502
Level: College Prep	Credits	2.5

This semester course provides students with the opportunity to apply important business math concepts that will directly apply to real-life situations. Learning about interest rates, car loans, budgeting, financial management, real estate, insurance and other practical math applications will provide the student with priceless information for the future. These basic math applications will be integrated using Excel spreadsheet applications and is a stepping-stone for future advanced math applications. This course, if taken with Record Keeping II, will be articulated with North Shore Community College as transferable college credits for one business math course.

BUSINESS MATH II	Course Number:	503
Level: College Prep	Credits	2.5

This semester course is a continuation of Business Math I and is required in order to receive North Shore Community College credit. Advanced business math applications including business analysis and statistics,

profit/loss financial statements and global economy discussions are topics that will be covered. Excel applications go hand and hand in this course. This class may be used as a stepping-stone to Accounting I.

BANKING THEORY & FINANCE **Course Number** 551
Level: College Prep **Credits** 5

This full-year course is designed to provide students with knowledge of various banking practices and important financial matters. Students will have many practical experiences that will enable them to not only observe the work of bank employees, but to perform all practical financial tasks necessary for everyday living after graduation. Students will be engaged in financial literacy activities including financial planning, budgeting, banking services, income tax preparation, money & credit management, and comprehensive investing for the future. Students will be using a virtual business challenge SIMS program and may be able to compete in an investment challenge. This course is open to sophomores, juniors, and seniors.

BANKING **Course Number** 553
Level: College Prep **Credits** 5

Prerequisite: *Juniors and seniors who have taken or are currently enrolled in Banking Theory & Finance and have submitted an application, job interview, and two references.*

The Banking Lab will give students actual on-line bank teller experience. A requirement of this course is that each student must successfully complete Cape Ann Savings Bank's teller training program for two weeks during summer vacation. (2 credits) The bank teller's responsibilities include: cashing checks, processing deposits, withdrawals, mortgage and loan payments, and opening new accounts. Each student teller is also responsible for settling his or her teller cash each day. The Gloucester Educational Savings Bank is a fully insured, on-line branch of the Cape Ann Savings Bank. Students must conduct themselves professionally and courteously. Upon completion of this year-long program, each student will be a trained and experienced bank teller.

BUSINESS MANAGEMENT **Course Number** 552
Level: College Prep **Credits** 2.5

This semester course is offered twice a year. With the support and guidance of volunteer consultants from the local business community, the JA (Junior Achievement) Company Program provides basic economic education for high school students. By organizing and operating an actual business, students will participate in product ideology, stock sales, creating a company name, logo, slogan, business plan and annual report. All profits earned will go to a non-profit community organization. This class also encompasses math skills and encourages creative thinking and communication skills.

COLLEGE ACCOUNTING I **Course Number** 522
Level: College Prep **Credits** 2.5

This semester course is a presentation of accounting principles and practices and is beneficial to all students as it provides an understanding of business and financial concepts that are basic in our society. Any student who plans a career in bookkeeping, accounting, management, marketing, finance and banking, or in business should complete this course. *QuickBooks* accounting software will be introduced to reinforce concepts through projects and simulations. This course, when taken with Accounting II, will be articulated with North Shore Community College as transferable college credits for one accounting course.

COLLEGE ACCOUNTING II **Course Number** 531
Level: College Prep **Credits** 2.5

Prerequisite: *Passing grade in Accounting I*

This second semester course is a continuation of Accounting I and is required in order to receive transferable North Shore Community College credit. This course is a continuation of the study of accounting theory and builds upon the skills learned in Accounting I. The focus of this class will be on merchandising and will include both manual and QuickBooks Pro simulations.

CAREER DEVELOPMENT **Course Number** 513

Level: College Prep

Credits

2.5

This one semester course is designed to provide the opportunity for students to explore a wide variety of careers using various career exploration programs. Students will create career portfolios that include resumes, letters of application, job applications and several interest inventories. This career awareness course provides the opportunity for students to explore and begin to make decisions about their future.

ENTREPRENEURSHIP (LUCKY LOBSTER MARKETING) Course Number 517

Level: College Prep

Credits

5

Prerequisite: Graphic Design and Digital Art 1 or by teacher recommendation

Students in this course run a real business that provides marketing and specialty services for local Cape Ann businesses as well as for the school district. Social media networking, blogging, and managing our business webpage are valuable skills learned. Students apply for various positions in the company that include president and vice president of various departments. Students use various software programs including Microsoft Publisher and Adobe Photo Shop to create flyers, posters, booklets, and business cards for clients in the community. Students have opportunities to receive commissions, scholarships, as well as internship certificates.

AP ECONOMICS

Course Number

509

Level: Advanced Placement

Credits

5

Prerequisite: For juniors and seniors with recommendation of teacher

This full-year course is designed to engage students in research and analysis of local, national and global economies. Macroeconomic and Microeconomic concepts will be covered including scarcity, supply & demand, economic systems, economics models, and fiscal & monetary policy. Financial literacy, stock market, and investments will also be covered. Students will take AP exams in both Microeconomics and Macroeconomics with the possibility of earning 6 college credits. It is strongly recommended that students take Economics College Prep before taking this class.

ECONOMICS

Course Number

507

Level: College Prep

Credits

5

This full-year course is designed to engage students in research and analysis of local, national and global economies. Also, as a stepping stone for taking AP Economics, students will obtain a base of Economic knowledge that will ensure success in that class. This course will focus on various markets including the stock market, the impact of decision-making and economic indicators. Students will build a solid foundation for lifelong application by personally applying economic life skills through various competitions during the year. Students will participate in the Boston Globe stock market challenge and try their hands in real investing using Sharebuilder.com.

MARKETING/DECA I

Course Number

562

Level: College Prep

Credits

5

Pre-requisite: Must have achieved a B or better in all English classes taken.

This full-year course offered to sophomores, juniors, and seniors provides the opportunity for students to explore the world of Marketing both locally as well as globally. Students become members in DECA (Distributive Education Clubs of America), an International student marketing organization that offers students opportunities to compete at District, State and National levels using their marketing knowledge as well as their communication and interviewing skills. Students choose a marketing category such as Sports & Entertainment Marketing, Hospitality Marketing, Financial Services Marketing, Apparel & Accessories, International Business, or Restaurant Management as an area of focus. Students in this class operate and manage the DECA school store. Many scholarships & employment opportunities are available for students who are members of DECA.

MARKETING/DECA II**Course Number 562H****Level: Honors****Credits 5****Prerequisite: Must have achieved a passing grade in Honors English**

This Full year course is offered to students that have taken DECA before and for all first year students interested in applying what they learn in marketing to a competitive event.

Students become members in DECA (Distributive Education Clubs of America), an International student marketing organization that offers students opportunities to compete at District, State and National levels using their marketing knowledge as well as their communication and interviewing skills. Students choose a marketing category such as Sports & Entertainment Marketing, Hospitality Marketing, Financial Services Marketing, Apparel & Accessories, International Business, or Restaurant Management as an area of focus. Students in this class operate and manage the DECA school store. Many scholarships & employment opportunities are available for students who are members of DECA.

FINE ARTS

Visual Arts

GRAPHIC DESIGN AND DIGITAL ART 1**Course Number 685****Level: College Prep****Credits 2.5**

This one semester course is an introduction to Graphic Design and industry standard tools for design works. The focus is on design principles using digital tools such as Photoshop and Illustrator. Students will create a portfolio of works that demonstrate their mastery of these computer software programs as well as their understanding and effective use of design principles for communication. Students will learn Topography, Digital Darkroom techniques, Logos, and Illustration for print. Students are required to have a sketchbook, pencils, and color pencils for this course. Students who wish to print their works must supply their own paper. This course is taught by an award-winning Photoshop professional.

GRAPHIC DESIGN AND DIGITAL ART 2**Course Number 685b****Level: College Prep****Credits 2.5****Prerequisite: Successful completion of Graphic Design and Digital Art I**

This one semester course continues the investigation in Graphic Design as started in Graphic Design and Digital Art I. The focus on this course is print design, such as newsletters, brochures, posters, and book design. Students will use InDesign, the industry standard design software for print. (Students will also use Photoshop and Illustrator for their design works so must have mastered the use of these programs in GDDArt I class.) Students will create a portfolio of works that demonstrate their mastery of these computer software programs and understanding and effective use of design principles for communication. Students will learn layout design. Students are required to have a sketchbook, pencils, and color pencils for this course. Students who wish to print their works must supply their own paper. This course is taught by a design professional.

DRAWING I**Course Number 702****Level: College Prep****Credits 2.5**

This one semester course stresses the study of drawing and drawing techniques. There is a strong emphasis on realistic and observational drawings. Each drawing project strengthens the student's knowledge of compositional structures, drawing elements, and design principles. Students taking this course are serious about perfecting their drawing skills or are considering careers in the arts. Students are required to have a sketchbook for this course.

PAINTING I**Course Number 705****Level: College Prep****Credits 2.5**

This one semester course emphasizes the study of painting and painting techniques. Students will study color theory, compositional structures, visual elements and design principles. Students will study different painting

styles from a variety of historical periods and cultures. Students will be required to have a sketchbook.

HONORS STUDIO ARTS	Course Number	729
Level: Honors	Credits	5

Prerequisite: Based on a portfolio of serious work and permission of the instructor
This full year course is designed for students who are serious about careers in art and intend to major in fine art in college. Students in Honors Studio Arts will be required to declare their major: Advanced Drawing, Advanced Painting or Major Art. Students will be required to work independently, participate in critiques, and write several papers. The final grade is dependent upon work presented in the student exhibition at the end of the year.

Clayworks

CLAYWORKS I	Course Number	709
Level: College Prep	Credits	2.5

This is a hands-on course in which the student will explore the medium of clay using a variety of methods including pinch, slab, carving and glazing techniques to make both functional and sculptural pieces. For example, students will make a symmetrical pinch pot and glaze it using the concept of symmetry in the designs. Projects are linked to historical periods and cultures through the use of slides, videos and class discussions.

CLAYWORKS II	Course Number	719
Level: College Prep	Credits	2.5

Prerequisite: *Clayworks I*
This course develops the student's abilities with clay through design projects using techniques that include hand building and the potter's wheel. Students will design in sets to create a clay piece from a scale drawing. Students will also be introduced to the techniques used on the potter's wheel and glazing skills will be increased. Projects will be linked to the history of world ceramics.

ADVANCED CLAYWORKS	Course Number	704
Level: College Prep	Credits	2.5

Prerequisite: *Clayworks II*
Students will continue to develop their skills and individual interests through the medium of clay. Projects will be designed to inspire creative problem solving and technical proficiency. For example, students will develop a piece or set of pieces using the concept of relationship as an inspiration.

Photography

PHOTOGRAPHY I	Course Number	714
Level: College Prep	Credits	2.5

Students learn to communicate visually with a camera. They learn how and why cameras work, explore aesthetic and cultural issues surrounding photography, and use both darkroom and digital formats to output their work. It is highly recommended (not required) that students have access to a 35-mm manual SLR camera.

PHOTOGRAPHY II	Course Number	715
Level: College Prep	Credits	2.5

Prerequisite: *Passing grade in Photography I*
Students explore camera controls and darkroom techniques that expand their ability to communicate effectively. They continue to explore aesthetic and cultural concerns and are introduced to career options. Color theory and color printmaking, studio lighting and digital manipulation of images are also included.

ADVANCED PHOTOGRAPHY	Course Number	716
Level: College Prep	Credits	2.5

Prerequisite: *Passing grade in Photography II*

Students develop their own creative responses as they explore artistic choices and career options in photography. They use both digital and darkroom technologies to evolve their own artistic identity.

Music

BAND	Course Number	770
Level: College Prep	Credits	5

Prerequisites: *Ability to read music and completion of one or more years of training on instrument.*

This course is for any instrumental student interested in being part of the school's stage band, The Docksiders. Students who sign up for the course are subject to a final audition or personal invitation from the director. During the course of the school year there are numerous local and regional performances, and an occasional performance at a nationally known location. Attendance at all performances is mandatory. Rehearsals center on whole band practice as well as practice in smaller sections. Emphasis is on the music of modern stage bands. Students are required to bring their instruments and music to each class and are expected to practice at home on a regular basis. Students who need an instrument can be provided a "loaner" or arrangements can be made for a "rent to buy" program.

CHORUS	Course Number	762
Level: College Prep	Credits	5

This class focuses on singing. Students learn the basics of singing including breath control, sight singing, importance of tone quality, musical terms, how to better read music, and the importance of group and individual development. The course selects music throughout the different eras of music history. The ability to read music is not required. This is an exciting and fun-filled course for those who like to sing. Assessment is based on participation, concerts, and individual effort. Attendance at performances is mandatory.

MUSIC THEORY	Course Number	754
Level: College Prep	Credits	2.5

Prerequisite: *No prior music training is necessary. However, it is suggested that students have some musical experience.*

This is an introductory course in the development and writing of music. Topics will include music notation, scales, key signatures, musical expressions, ear training, and limited composition. The course of study will be "Alfred's Essentials of Music Theory", Books 1 and 2.

MUSIC HISTORY: BACH TO ROCK 1	Course Number	756
Level: College Prep	Credits	2.5

This class is the study of the history of music. The course is taught using recordings and videos to aid in study and comprehension. Students will experience the music of the Classics, the Roots of Rock and Roll from 1954 through 1963, the "British Invasion" of the 1960's, and the impact of rock and roll in America and overseas during the decades of the 1950's and 1960's. Additional topics will include the history of Musicals and the evolution of Jazz, Swing and "Big Bands". Students will learn the musical forms used to create the compositions, instrumentation, and the historical significance of each style. Assessment is based on class participation, quizzes and a variety of individual and hands-on projects.

MUSIC HISTORY: BACH TO ROCK 2	Course Number	757
Level: College Prep	Credits	2.5

Prerequisite: *Successful completion of "Music History- Bach to Rock I"*

Vocational Technology and Industrial Arts

Automotive

AUTOMOTIVE MECHANICS INTRO	Course Number	805
Level: College Prep	Credits	2.5

This class is an introduction to the basic and general maintenance of the automobile and basic care and safety around servicing the automobile. Using *Introduction to Auto Mechanics*, *AllData Computerized Database*, and handouts, the students will learn to use databases and manuals, as well as to demonstrate the ability to safely use tools and lifting equipment.

AUTOMOTIVE TECHNOLOGY I	Course Number	801
Level: College Prep	Credits	10

Automotive Technology I is an introduction to the major subsystems of the automobile with emphasis on shop safety; internal combustion engine, basic brake, and basic steering operating principles; automotive history. The class is taught using *Automotive Technology*, *Motor Publications*, *Mitchell Informational Computerized Database*, *Mitchell International*, and handouts. Students will learn to use computer databases, charts, manuals, and graphs, as well as the ability to demonstrate the safe use of power and hand tools, while gathering information and making intelligent decisions to effect successful hands-on repairs. (This is a Mass. DOE Chapter 74 course.)

AUTOMOTIVE TECHNOLOGY II	Course Number	802
Level: College Prep	Credits	10

Prerequisite: *Successful completion of Automotive Technology I*

This course is a second year automotive course that will expand Automotive Technology I. It will focus on the safe use of automotive hand and power tools. The students will study the theory of front-end alignment, electrical systems, emissions and their controls, tires and fuel systems. They will work using automotive tools, computer-based data, trouble charts, and manuals in these theory areas. Also, students will diagnose, problem solve and correct automotive problems. (This is a Mass. DOE Chapter 74 course.)

AUTOMOTIVE TECHNOLOGY III	Course Number	803
Level: College Prep	Credits	15

Prerequisites: *Successful completion of Automotive Technology I and II*

This course is the third year automotive course with a focus on braking systems, theory and repairs, and steering systems, automotive electrical systems, and engine performance. Students will learn to use computer databases, manuals and charts, 4-wheel alignment computer, and 5-gas emissions analyzer. The student will demonstrate the safe use of automotive hand, power, and diagnostic equipment: to find a problem, take measurements, make judgments, and effect solutions. (This is a Mass. DOE Chapter 74 course.)

AUTOMOTIVE TECHNOLOGY IV	Course Number	804
Level: College Prep	Credits	15

Prerequisites: *Successful completion of Automotive Technology I, II, and III*

This fourth year automotive course will focus on hands-on-repairs and diagnostics. brakes, suspension and steering, electrical, engine performance, emission, and fuel in live work. Work skills and habits will be fine-tuned. Computer database and electronic test and repair equipment will be used frequently along with other major automotive tools. Shadowing, internships, and co-operative programs will be implemented in this course. (This is a Mass. DOE Chapter 74 course.)

Carpentry

CARPENTRY I	Course Number	821
Level: College Prep	Credits	10

Co-requisite: *CAD I recommended*

This course teaches students basic carpentry skills with emphasis on safety, working with tools and wood. The course begins with small building projects and culminates in applying skills in the building of sheds and small buildings. (This is a Mass. DOE Chapter 74 course.)

CARPENTRY II	Course Number	822
Level: College Prep	Credits	10

Prerequisite: *Passing Carpentry I. Co-requisite: CAD II recommended.*

This second level course involves small buildings with emphasis on exterior siding and trim, using latest technologies. Various framing techniques from old to new will be analyzed and evaluated. (This is a Mass. DOE Chapter 74 course.)

CARPENTRY III	Course Number	823
Level: College Prep	Credits	15

Prerequisite: *Passing Carpentry II Co-requisite: CAD III recommended*

This third level course will involve on-site building projects, such as homes and larger buildings. Students will learn how to frame from foundation to roof, complete exterior siding, trim, windows and doors. They will also learn to construct interior finish work. (This is a Mass. DOE Chapter 74 course.)

CARPENTRY IV	Course Number	824
Level: College Prep	Credits	15

Prerequisite: *Passing grade in Carpentry III*

Students will increase their skill levels and refine their abilities in all aspects of carpentry in on-site building projects. Opportunities for cooperative and mentoring programs may be available. (This is a Mass. DOE Chapter 74 course.)

Cabinet Making

CABINET MAKING I	Course Number	681
Level: College Prep	Credits	5

This course is designed to give the beginning woodworker hands-on insight into machines and techniques used in industry. It will develop problem solving abilities related to materials, methods and products of furniture and cabinet making through the hands-on approach to actually building a series of projects increasing in difficulty. Students will learn to use a wide range of woodworking equipment and hand tool operation to successfully complete a project from a drawing to a finished project of professional quality.

CABINET MAKING II	Course Number	682
Level: College Prep	Credits	5

Prerequisite: *Passing grade in Cabinet Making I*

A continuation of Cabinet Making I with greater depth and increased difficulty of projects: Students will become more proficient in the use of woodworking tools and procedures.

CABINET MAKING III	Course Number	683
Level: College Prep	Credits	5

Prerequisite: *Passing grade in Cabinet Making II*

A continuation of Cabinet Making II with greater depth and increased difficulty of projects: Students will become more proficient in the use of woodworking tools and procedures. Evaluation includes daily progress and final project assessment.

Electrical Technology

ELECTRICITY I	Course Number	841
Level: College Prep	Credits	10

This is an elective course open to all students. Students are issued a set of electrician's tools and a pouch. Hands-on projects include building low and high voltage circuits and related classroom instruction. Course work focuses on safety, Ohm's Law, simple and complex circuitry, basic wiring, DC & AC circuits, code rules and residential wiring. Class and shop time count toward hours for state licensure. (This is a Mass. DOE Chapter 74 course.)

ELECTRICITY II	Course Number	842
Level: College Prep	Credits	10

Prerequisite: *Passing grade in Electricity I.*

Students study Massachusetts electrical code, devices, circuits/materials. Instruction includes additional circuits in residential wiring, safety, appliances, computing and sizing circuits. Hands-on experience includes shop/house projects, motor controls, school wiring and maintenance. Class and shop time count toward hours for state licensure. (This is a Mass. DOE Chapter 74 course.)

ELECTRICITY III	Course Number	843
Level: College Prep	Credits	15

Prerequisite: *Passing grade in Electricity II*

Topics include residential wiring, commercial wiring, motor controls, Massachusetts electrical code and Electricity-3-power, generation and delivery heating systems, single phase services, transformers, and motor controls. Advanced wiring projects, motor control trainers, house projects, school wiring and maintenance projects, and trouble-shooting offer hands-on experience in the field. Class and shop time count toward hours for state licensure. (This is a Mass. DOE Chapter 74 course.)

ELECTRICITY IV	Course Number	844
Level: College Prep	Credits	15

Prerequisite: *Passing grade in Electricity III*

Students refine their knowledge of commercial and industrial wiring motor controls, Massachusetts code, changes in electrical code and Electricity-4-AC/DC motor control and maintenance, florescent lighting, inductive and capacitive reactance, three phase systems, motors and generators. Motor control trainer, house project, school wiring and maintenance, repairs and trouble-shooting and possible entry into co-operative programs offer hands-on experience. Class and shop time count toward hours for state licensure. (This is a Mass. DOE Chapter 74 course.)

Industrial Design

COMPUTER AIDED DESIGN I	Course Number	692
Level: College Prep	Credits	2.5

This semester course explores computer aided design and drawing techniques. Use of mechanical drawing vocabulary, architectural vocabulary and associated CAD drawing tools will introduce the student to the world of mechanical drawing. Using the computer students will learn mechanical drawing by using PTC *ProDesktop* software to create drawings in both 2D and 3D mode. *ProDesktop* is the introductory program for the award winning *ProEngineer* program which is offered to students in CADDII.

COMPUTER AIDED DESIGN II (Product Design)	Course Number	693
Level: College Prep	Credits	5

Prerequisite: *CAD I*

This course continues the development of engineering design and analysis through architectural, mechanical and electrical graphics. It explores graphic representation using 2D and 3D modeling techniques. The students will learn mechanical drawing techniques using PTC *ProDesktop* and *ProEngineer*. Students are also given the option of an introduction to Architectural Drawing using *DataCad 11* or *AutoCAD 2000*.

COMPUTER AIDED DESIGN III	Course Number	694
Level: College Prep	Credits	5
Prerequisite: CAD II		

This course is for the advanced student who intends to pursue a career in mechanical design in either architecture or mechanical engineering. Computer-based instruction is coupled with long-term design projects in either of the chosen disciplines. (architectural or mechanical) Students will work alone and also in teams to complete various design projects.

Machine Technology

MACHINE TECHNOLOGY I	Course Number	861
Level: College Prep	Credits	10

This course is an entry-level double block experience designed to introduce students to the manufacturing of metal parts from raw materials including brass, aluminum, steel, plastic and others. The students learn the basic set up and operation of machine tools to cut or grind metal into parts with precise dimensions. Safety procedures and the proper operation of all machine and hand tools are emphasized. Students will also learn the art of reading blueprints and charts, use math formulas and learn machine shop terminology. (This is a Mass. DOE Chapter 74 course.)

MACHINE TECHNOLOGY II	Course Number	862
Level: College Prep	Credit	10

Prerequisite: Machine Technology I

This course is a continuation of Machine Technology I. Students review safety and operational procedures and progress into more complex setting-up and operation of lathes, millers, and grinders. It is a project-based learning experience where students can design and manufacture hand tools and parts for their own use. (This is a Mass. DOE Chapter 74 course.)

MACHINE TECHNOLOGY III	Course Number	863
Level: College Prep	Credits	15

Prerequisites: Machine Technology I & II

This is a three block vocational program where students will learn to perform various tasks of computer-controlled millers and lathes. They will also advance their knowledge of dimensioning and machining. At this level students will enter the world of computer numerical controlled machining, known as CNC. (This is a Mass. DOE Chapter 74 course.)

MACHINE TECHNOLOGY IV	Course Number	864
Level: College Prep	Credits	15

Prerequisites: Machine Technology I, II & III

This course enhances the computer programming and set-up of various complex parts. Students at this level will design (with the use of manual or CAD procedures) a part or tool. They will set-up and manufacture the designed part or tool on a computer numerical controlled (CNC) machine (lathes or millers). Students will continue to enhance their skills and abilities in manual machines as well. Opportunities for cooperative work experiences may exist. (This is a Mass. DOE Chapter 74 course.)

Child Study

WORLD OF CHILDREN	Course Number	611
Level: College Prep	Credits	2.5

This elective course examines the physical, intellectual and social/emotional development of children. Issues such as the role of the family, parenting styles, reading aloud, art, music and health will be studied. Guest speakers, special projects, hands-on learning, video and texts enhance the curriculum. Attendance is

important to class participation

CHILD STUDY

Level: College Prep

Course Number: 614

Credits: 15

Students in junior and senior years are given the opportunity to explore the world of four and five year olds in a preschool setting with children from the community. The students are responsible for brainstorming, researching, preparing and implementing themes into lessons and activity centers that will engage the preschooler's learning. A reflective, photographic journal analyzing and evaluating lessons is required for each lesson taught to the children. Topics including student observation, discipline methods, multiple intelligences, and the arts in education are presented on seminar days.

ADVANCED CHILD STUDY

Level: College Prep

Course Number: 615

Credits: 15

Prerequisite: *Child Study*

Seniors will have the opportunity to work with children at an elementary or privately-owned school. They will work under the guidance of a cooperating teacher for three periods a day. Responsibilities include helping with classroom duties, creating lesson plans, working with small groups, maintaining an on-going reflective/photographic journal and other related assignments. Students must provide own transportation.

CHILD STUDY AIDE

Course Number: 616

Credits: 5

Students are given the opportunity to work with four and five year olds in a preschool setting within the high school. Responsibilities include helping student teachers with lessons, organizing preschool materials and room, and completing assignments. Attendance is important to class participation.

Culinary Arts

INTRODUCTION TO CULINARY ARTS

Level: College Prep

Course Number 603

Credits: 2.5

This class offers an introduction to food preparation and presentation techniques and the world of culinary arts. Topics: Equipment identification, care, and safe storage, recipe development, abbreviations, measuring techniques, equivalents, and basic cookery methods including main dishes and baking.

CULINARY ARTS I

Level: College Prep

Course Number 601

Credits 5

Prerequisite: *Introduction to Culinary Arts or equivalent*

Topics: knife tasks, safety, sanitation, recipe development, menu design, time management, quality control, and resume format.

CULINARY ARTS II

Level: College Prep

Course Number 602

Credits 10

Prerequisite: *Culinary Arts I (or equivalent) and instructor's signature*

Advanced food preparation, production, and presentation techniques. Topics: quality food production, custom menus, café and catering operations, inventory, purchase orders, receiving and storing supplies, standardization, cost control, and entrepreneurial skills.

Additional Programs

These programs offer non-traditional experiences; they are intended to provide substantial additional options for acquiring graduation credits.

Environmental – Adventure (Summit Program)

Cape Ann History	Course Number	931
Cape Ann Environment	Course Number	929
Level: College Prep	Credits	10

A two block class devoted to the study of Cape Ann and the development of leadership skills. Students learn how to explore Cape Ann by coming to grips with the specific environment and social endeavors-aquaculture, dynamics of the estuary, renewable energy, life past and present in Gloucester. Students participate in a wide range of Adventure Activities (dory rowing, challenge courses, rock climbing, hiking, community garden). Students study leadership skills which will equip them to lead a wide range of field and classroom activities. Students will earn credits in Social Studies (5) and Science (5).

ACADEMIC SUPPORT	Course Number	928
	Credits	5

Individualized remedial instruction including study strategies, test taking techniques, organizational skills, and content area reinforcement. Reading comprehension, written language skills, and independent learning techniques are emphasized.

DUAL ENROLLMENT PROGRAM

Level: College Prep	Credits:	Variable
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This program enables seniors to attend local colleges on a full or part-time basis. A student enrolled in this program would receive both high school and college credit for courses taken at a college. The program is based on the premise that qualified seniors have opportunities to be exposed to college level work with the possibility of transferring credits toward their college degree. Students are responsible for providing the high school with college transcripts. Students must have the approval of their guidance counselor and administration before entering this program. Credits vary from 2.5 to 15 credits based on the requirements of the program.

GLOUCESTER ALTERNATIVE PROGRAM

Credits:	Variable
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This program is designed to enable alternative ways to meet graduation requirements by providing a highly structured academic program designed to help students overcome academic and life obstacles to be successful in school. Courses are offered in academic disciplines as well as occupations, independent studies and internships. Students are selected for this program on the basis of faculty and administrative recommendation.

GLOUCESTER COMPASS PROGRAM

Credits:	Variable
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This program is designed to enable alternative ways to meet graduation requirements by providing a highly structured academic program designed to help students overcome academic and life obstacles to meet success in school. Courses are offered in all academic disciplines as well as occupations, independent studies and internships. Students are selected for this program on the basis of faculty and administrative recommendation.

INDEPENDENT STUDY

Credits:	Variable
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Prerequisite: Written plan approved by parents and the principal

The Independent Study Program is designed to enable study in areas that are not offered in the regular curriculum. These options include in-depth studies in particular disciplines as well non-traditional work-study experiences within the community. Interested students should contact their guidance counselors. All independent study request forms must be submitted for approval by the principal and parents prior to the beginning of the study. Credits vary determined by the principal based on the requirements of the study.

INTERNSHIPS

Credits:	Variable
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Prerequisite: Written plan pre-approved by parents and the principal

Student internships provide young adults with exposure to the real world of work. A student is matched with a community learning opportunity that matches his/her educational plan for a period of time. The internship may be paid or unpaid. At the work site the student's responsibilities are identified and progress is measured. The employer acts as a mentor in evaluating the student's progress and providing the student with written feedback of strengths and weaknesses. Students who complete internships may be eligible to receive high school credit for their work experience. They also acquire a variety of work skills that are in demand in the modern work environment. Internships must include a written plan pre-approved by parents and the principal. Credits vary determined by the principal and based on the requirements of the internship.

NORTH DAKOTA INDEPENDENT STUDY

Credits: Variable

Prerequisite: Written plan pre-approved by parents and the principal

The North Dakota Division of Independent Study on-line coursework offers core curriculum for high school credit. A written request and pre-approval by parents and the principal is the first step in undertaking any coursework through this venue. Credits are determined by the principal based on Gloucester High School's credit system.

NORTH SHORE REGIONAL VOCATIONAL HIGH SCHOOL

The North Shore Regional Technical High School is our vocational affiliate. It is a traditional vocational high school that offers a wide variety of vocational programs. Students who wish further information regarding programs offered for the next year at the North Shore Regional Technical High School should see their guidance counselor as soon as possible. Applications must be completed by November 1 for the following academic year.

Courses offered include Auto Mechanics, Auto Body Repair, Carpentry, Commercial Art, Computer Technician, Cosmetology, Culinary Arts, Graphic Arts, Machine Technology, Masonry, Electronics, Cisco Systems, Health, Science, and CNA (Certified Nursing Assistant).

SUMMER SCHOOL

Credits: Variable

Summer school courses may be used by students to improve their skills or, in the case of students who have previously failed a course, to obtain credit. A limited summer school program is offered. Courses are offered only if there is sufficient enrollment. High school students may pursue summer school courses for credit **only if they have previously taken the course during the regular school year, have completed the course, and have received a failing grade in the course which is between 55 and 64.** Students who fail courses with grades below 55 will not be eligible to make up credit for those courses in summer school. When a student completes a summer school course, the earned grade is recorded on his/her transcript. Grades earned in summer school are not counted toward grade point average and rank in class calculations.

Students may pursue summer study for credit in other institutions, such as community colleges or other high schools under the same conditions as for the Gloucester summer school program.

Students who enroll at other institutions for summer study and who expect to receive credit must receive prior written approval from the principal.

Worksheet for Selecting a Program

Subject	Course Title	Number	Credits	Pre-req.	Co-req.
English					
History					
Math					
Science					
Health & Fitness					
Foreign Language					
Elective #1					
Elective #2					
Elective #3					
Elective #4					
Elective #5					
Elective #6					

Please remember to ...

Check graduation requirements.

Watch carefully for “co-requisite” courses like *Biology* and *Technology in Biology*.

Watch carefully for “prerequisite” courses.

Semester classes receive 2.5 credits; full year classes generally receive 5 credits.

List your electives in order of priority; your first choice should be first.

Your guidance counselor will be happy to help you.

Gloucester High School 2010-2011 Course Request Form

Name: _____ HR _____ YOG _____ ID# _____

Address: _____ Phone: _____

Guidance Counselor <i>(check one)</i>	
Ms. Gabry	(A - De)
Mr. Sacco	(Di - H)
Ms. Carlson	(I - N)
Mr. Loring	(O - Sn)
Ms. Clarke (Director)	(So - Z)

Course	Course No.	Course Title	Credit	Teacher
English				
Social Science				
Mathematics				
Science				
Health & Fitness				
Elective 1				
Elective 2				
Elective 3				
Elective 4				
Elective 5				
Elective 6				
Elective 7				
Elective 8				

- Be sure you have elected all the required subjects for your year in school and that you are meeting graduation requirements.
- Select your electives in order of preference, i.e. your first choice is Elective 1 and your last choice is Elective 8.
- All students should have 35 credits of work each week. Select a minimum of 45 credits.
- Vocational Programs and World Languages are electives.

I approve of my son/daughter's course selections.

_____ Date _____

Gloucester High School Directory

Principal's Office:		281-9870
Principal	Dr. William J. Goodwin	281-9865
Dean of Academic Affairs	Mr. Mark Bedrosian	281-9865
Assistant Principal	Mr. James Hayes	281-9866
Assistant Principal	Ms. Katherine DiNardo	281-9867

Guidance Office:		281-9874
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Guidance Counselor (A - C)	Ms. Carlyne Gabry	ext. 4011
Guidance Counselor (D -H)	Mr. Carl Sacco	ext. 4008
Guidance Counselor (I - N)	Ms. Laura Carlson	ext. 4010
Guidance Counselor (O-Sn)	Mr. Jason Loring	ext. 4012
Guidance Director (So -Z)	Ms. Ellen Clarke	ext. 4009

Program Leaders:		281-9870
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Athletics	Ms. Kim Patience	281-9877
Business	Ms. Ann Grasseti	ext. 3307
English	Ms. Cindy Perry	ext. 1614
GAP	Ms. Cindy Smith	282-1860
Social Studies	Ms. Andrea Pretzler	ext. 2208
Marine Corps JROTC	Sgt. Mjr. Richard Muth	283-5149
Mathematics	Ms. Deborah Faunce	ext. 3201
Science	Ms. Thomas Walsh	ext. 3402
Special Education	Ms. Barbara Sachs	ext. 4027
Library Media Center	Ms. Mary Saunders	ext. 2222
Foreign Languages	Mr. Celestino Basile	ext. 1217

School Nurse:	Ms. Eileen Tebo	281-9868
	Ms. Beth White	

School Psychologist	Mr. John DeMattia	281-9870 ext. 2305
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