

PROGRAM OF STUDIES



WESTBROOK HIGH SCHOOL 2010-2011

*Westbrook School Department
Our Shared Vision*

The Westbrook School Department believes that education is a partnership among students, staff, parents, and community. We encourage self-directed learning and individual excellence through student-centered activities and interdisciplinary connections. Within a framework of high expectations, the school environment allows for a variety of opportunities for students to demonstrate what they have learned. As partners in learning, we all share the responsibility to make this vision a reality in a changing world.

TABLE OF CONTENTS

MISSION STATEMENT	1
ACADEMIC POLICIES.....	1
GRADUATION REQUIREMENTS	2
COURSE LISTINGS GRADE 9	3
COURRSE LISTINGS GRADE 10.....	4
COURSE LISTINGS GRADE 11	5
COURSE LISTINGS GRADE 12	7
WELLNESS DEPARTMENT	9
ENGLISH DEPARTMENT.....	11
SOCIAL STUDIES DEPARTMENT	14
MODERN AND CLASSICAL LANGUAGE DEPARTMENT	18
MATHEMATICS DEPARTMENT	22
SCIENCE DEPARTMENT	25
CAREER AND TECHNICAL EDUCATION/VOCATIONAL DEPARTMENT	29
FINE ARTS	36

WESTBROOK HIGH SCHOOL MISSION STATEMENT

The mission of Westbrook High School is to foster a collaborative environment where all students are able to access learning. Our goal is to promote lifelong critical thinking, effective communication, creative problem-solving, responsible citizenship, and high aspirations.

ACADEMIC EXPECTATIONS

As a dedicated learning community, Westbrook High School recognizes that a variety of learning experiences will greatly benefit all students. Therefore, all members of the school community insure each student will participate in a multitude of learning experiences throughout their time at Westbrook High School. Through their work in a number of academic areas, we challenge and support each graduate of Westbrook High School to:

- Communicate clearly and effectively to learn, explore, analyze, and persuade
- Read, process, and interpret information from different sources and apply this knowledge to solve problems creatively and effectively
- Access and use many forms of technology to research, organize, interpret, and present information
- Demonstrate self-awareness of healthy behaviors and lifelong fitness
- Create and share for personal expression and aesthetic appreciation

SOCIAL AND CIVIC EXPECTATIONS

A comprehensive education encompasses learning beyond academic studies. Westbrook High School will foster the development of strong character and citizenship that will help students be successful members of society. We challenge and support each graduate of Westbrook High School to:

- Exercise the rights and responsibilities of global citizenship
- Cultivate awareness of the value of community and personal aspirations
- Consistently demonstrate responsible and ethical behaviors
- Respect the rights of others in a diverse society
- Collaborate effectively with others

ACADEMIC POLICIES

GRADING

Grades are reported on a numerical scale from 0 - 100 with the following values:

93 -100 =	A
85 - 92 =	B
77 - 84 =	C
70 - 76 =	D
0 - 69 =	F

Work not completed within specific times will be graded 0.

GRADE POINT AVERAGE

Advanced Placement and Honors courses are weighted in the student's G.P.A. on his/her transcript. Weight for Advanced Placement courses is 1.25 (i.e. a grade of 90 would be worth 112.50 in the G.P.A.). The weight for Honors courses is 1.15 (i.e. a grade of 90 would be worth 103.50 in the G.P.A.).

HONOR ROLL

Full-time students (those carrying at least six classes) who receive 85 or better in all courses for an academic quarter will be named to the Honor Roll.

Full-time students (those carrying at least six classes) who receive 93 or better in all courses for an academic quarter will be named to the High Honor Roll.

A grade of "WP" (Withdrawn Passing), "WF" (Withdrawn Failing) or "I" (Incomplete) will make a student ineligible for Honor Roll status for that academic quarter.

SUMMER ACADEMY

Only those who fail courses with yearly grades of 60 or better may make-up courses in an approved summer program. Students pursuing courses through credit recovery must have permission of department chair and building principal.

PARTICIPATION IN GRADUATION

In order to participate in graduation activities, students must earn at least 23 credits, be a full-time student (carrying at least 6 classes), and successfully meet all graduation requirements as set forth by the Westbrook School Committee.

FULL-TIME STATUS

Only full-time students (those students carrying six classes) are eligible to participate in extra/co-curricular activities. Students who do not meet this requirement may not participate in graduation unless they petition the Principal and are granted a waiver from this requirement. Waivers should only be petitioned for cases of extreme personal hardship.

COURSE OFFERINGS

All course offerings listed in the Program of Studies are available for student scheduling purposes. Student enrollment numbers will determine whether courses will be offered following registration. Final determinations for all course offerings will be determined by administration.

HONORS AND ADVANCED PLACEMENT COURSEWORK

All students are encouraged to pursue high aspirations and maintain a healthy and well-balanced lifestyle. Students are expected to select classes based on their individual ability to be successful in each class and to create a challenging yet reasonable schedule balancing their school responsibilities and commitments beyond the classroom.

Students are expected to understand homework guidelines vary based upon individual course requirements and that advanced level courses require increased amounts of time in completing homework, long-term assignments and preparation for assessments.

Students pursuing honors/advanced placement courses should carefully consider the increased depth of the curriculum, course requirements and amount of time necessary for homework while taking into account the expectations of their other classes as well as their personal needs and obligations.

GRADUATION REQUIREMENTS

Subject	Credits Required	Courses Required
English	4	
Social Studies	3	World Studies I World Studies II U.S. History
Mathematics	3	
Science	3	Earth Science - 1 Biology - 1 Chemistry - .5 Physics - .5
Health	.5	
Physical Education	1	
Fine Arts	1	
Computer Literacy	Demonstrated before Graduation	
Electives	As needed to meet graduation requirements	
Minimum Credits Required	23	

COURSE LISTING GRADE 9

Classes are year long unless otherwise noted.

WELLNESS

001 Physical Education

ENGLISH

110 Honors English I

111 English I

113 Reading and Writing Workshop I

SOCIAL STUDIES

210 Honors World Studies I

211 World Studies I

213 World Studies I (Remedial)

MODERN & CLASSICAL LANGUAGES

310 French I

320 French II

312 Latin I

313 Spanish I

323 Spanish II

314 Chinese I

MATHEMATICS

411 Algebra I

412 Algebra IA

420 Honors Geometry

SCIENCE

510 Honors Earth Science/Lab

511 Earth Science

512 Earth Science Workshop

513 Earth Science (Remedial)

515 Applied Engineering (1/2 yr)

520 Honors Biology/Lab

BUSINESS/VOCATIONAL

610 Career Planning (1/2 yr)

FINE ARTS

114 Communications

910 Foundations of Art One

940 Concert Band

941 Music Appreciation (1/2 yr)

942 Music Theory

943 Wind Ensemble

944 Concert Chorale

945 Chamber Singers

946 Music Technology (1/2 yr)

947 Piano Lab (1/2 yr)

948 Melody & Improvisation

960 Introduction to Theater (1/2 yr)

961 Theater Production I (1/2 yr)

COURSE LISTING

GRADE 10

Classes are year long unless otherwise noted.

WELLNESS

- 001 Physical Education
- 003 Health (1/2 yr)
- 004 Adaptive Health (1/2 yr)
- 005 Healthy Me (1/2 yr)

ENGLISH

- 120 Honors English II
- 121 English II
- 123 Reading and Writing Workshop II

SOCIAL STUDIES

- 220 Honors World Studies II
- 221 World Studies II
- 222 World Studies II Workshop
- 223 World Studies II (Remedial)

MODERN & CLASSICAL LANGUAGES

- 310 French I
- 320 French II
- 330 French III
- 312 Latin I
- 322 Latin II
- 313 Spanish I
- 323 Spanish II
- 333 Spanish III
- 314 Chinese I
- 324 Chinese II
- 345 Crossing The Border (Elective-1/2 yr)

MATHEMATICS

- 411 Algebra I
- 413 Algebra IB
- 420 Honors Geometry
- 421 Geometry
- 430 Honors Algebra II

SCIENCE

- 515 Applied Engineering (1/2 yr)
- 520 Honors Biology/Lab
- 521 Biology/Lab
- 522 Biology Workshop
- 523 Biology (Remedial)

CAREER AND TECHNICAL EDUCATION/VOCATIONAL

- 705 Automotive Technology I
- 711 Building Trades I
- 734 Culinary Arts I
- 728 Early Childhood Occupations I
- 717 Electricity I
- 750 Heavy Equipment Operation I

CAREER AND TECHNICAL EDUCATION/VOCATIONAL

- 740 Marketing Education I
- 720 Medical Occupations I
- 744 Public Safety I
- Business Department (Choose from below)
 - 610 Career Planning (1/2 yr)
 - 611 Microsoft Office Word & Access (1/2 yr)
 - 612 Microsoft Office Excel & Powerpoint (1/2 yr)
 - 613 Accounting/Quickbooks
 - 614 Human Resource Management (1/2 yr)
 - 615 Business Operations Management (1/2 yr)
- Computer Repair & Networking (Choose from below)
 - 630 Intro to Computer Hardware (1/2 yr)
 - 631 Robotics (1/2 yr)
 - 632 Cisco Academy I (1/2 yr)
 - 633 Cisco Academy II (1/2 yr)
 - 634 Computer Maintenance & Repair 1 (1/2 yr)
 - 635 Computer Maintenance & Repair 2 (1/2 yr)
 - 636 Open Source Operating System./Applications (1/2 yr)
 - 637 Networking & Computer Security (1/2 yr)
- Drafting (Choose from below)
 - 650 Mechanical Design 1 (1/2 yr)
 - 651 Architectural Design 1 (1/2 yr)
 - 652 Introduction to Engineering (1/2 yr)
 - 653 Introduction to Architectural (1/2 yr)
- Web Page Design
 - 640 Visual Design (1/2 yr)
 - 641 Web Page Design/Development 1 (1/2 yr)
 - 642 Web Page Design/Development 2 (1/2 yr)
 - 643 Digital Media 1 (1/2 yr)
 - 644 Digital Media 2 (1/2 yr)
 - 645 Multimedia Design: Flash 1 (1/2 yr)
 - 647 Web Scripting and Programming (1/2 yr)

FINE ARTS

- 114 Communications
- 910 Foundations of Art One
- 920 Drawing & Painting (1/2 yr)
- 921 Fine Functional Art/Crafts (1/2 yr)
- 936 Computer Art
- 940 Concert Band
- 941 Music Appreciation (1/2 yr)
- 942 Music Theory
- 943 Wind Ensemble
- 944 Concert Chorale
- 945 Chamber Singers
- 946 Music Technology (1/2 yr)
- 947 Piano Lab (1/2 yr)
- 948 Melody & Improvisation
- 960 Introduction to Theater (1/2 yr)

COURSE LISTING

GRADE 11

Classes are year long unless otherwise noted.

WELLNESS

- 001 Physical Education
- 005 Healthy Me (1/2 yr)
- 010 Team Sports (1/2 yr)
- 011 Weight Training (1/2 yr)
- 012 Peer Tutor for Adaptive P.E. I (1/2 yr)
- 013 Peer Tutor for Adaptive P.E. II (1/2 yr)
- 014 Nutrition (1/2 yr)
- 015 Life Management 101 (1/2 yr)
- 016 Life Management 102 (1/2 yr)
- 017 Healthy Leisure Activities (1/2 yr)
- 018 Leadership (1/2 yr)

ENGLISH

- 130 Honors English III
- 131 English III
- 133 Reading and Writing Workshop III

SOCIAL STUDIES

- 230 Honors U.S. History
- 231 U. S. History
- 233 U.S. History (Remedial)
- 237 Anthropology (1/2 yr)
- 238 Economics in the 21st Century (1/2 yr)

MODERN & CLASSICAL LANGUAGES

- 310 French I
- 320 French II
- 330 French III
- 340 French IV
- 312 Latin I
- 322 Latin II
- 332 Latin III
- 313 Spanish I
- 323 Spanish II
- 333 Spanish III
- 343 Spanish IV
- 314 Chinese I
- 324 Chinese II
- 334 Chinese III
- 345 Crossing The Border (Elective-1/2 yr)

MATHEMATICS

- 413 Algebra IB
- 421 Geometry
- 430 Honors Algebra II
- 431 Algebra II
- 432 Financial Planning
- 440 Honors Pre-Calculus
- 441 Pre-Calculus

SCIENCE

- 515 Applied Engineering (1/2 yr)
- 530 Honors Chemistry/Lab
- 531 Chemistry/Lab
- 532 Applied Chemistry (1/2 yr)
- 538 Applied Chemistry (Remedial) (1/2 yr)
- 533 Applied Physics (1/2 yr)
- 539 Applied Physics (Remedial) (1/2 yr)
- 535 Marine Science/Ecology (1/2 yr)
- 536 Environmental Issues (1/2 yr)
- 537 Biotechnology (1/2 yr)
- 540 Honors Physics/Lab
- 541 Physics/Lab

FINE ARTS

- 137 Public Speaking (1/2 yr)
- 138 Discussion & Debate (1/2 yr)
- 910 Foundations of Art One
- 920 Drawing & Painting (1/2 yr)
- 921 Fine Functional Arts (1/2 yr)
- 933 Studio Art B
- 936 Computer Art
- 938 Photography
- 940 Concert Band
- 941 Music Appreciation (1/2 yr)
- 942 Music Theory
- 943 Wind Ensemble
- 944 Concert Chorale
- 945 Chamber Singers
- 946 Music Technology (1/2 yr)
- 947 Piano Lab (1/2 yr)
- 948 Melody & Improvisation
- 960 Introduction to Theater (1/2 yr)
- 961 Theater Production I (1/2 yr)
- 962 Theater Production II, III

COURSE LISTING GRADE 11

Classes are year long unless otherwise noted.

CAREER AND TECHNICAL EDUCATION/VOCATIONAL WESTBROOK

	Tech I	Tech II
Automotive Technology	705	706
Building Trades	711	712
Commercial Truck Driving	723	724
Culinary Arts	734	735
Early Childhood Occupations	728	729
Electricity	717	718
Heavy Equipment Operations	750	751
Marketing Education	740	741
Medical Occupations	720	721
Public Safety	744	745
Business Department (Choose from below)		
611 Microsoft Office Word & Access (1/2 yr)		
612 Microsoft Office Excel & Powerpoint (1/2 yr)		
613 Accounting/Quickbooks		
614 Human Resource Management (1/2 yr)		
615 Business Operations Management (1/2 yr)		
616 Advanced Computer Applications (1/2 yr)		
617 Microsoft Certification (1/2 yr)		
Computer Repair & Networking (Choose from below)		
630 Intro to Computer Hardware (1/2 yr)		
631 Robotics (1/2 yr)		
632 Cisco Academy I (1/2 yr)		
633 Cisco Academy II (1/2 yr)		
634 Computer Maintenance & Repair 1 (1/2 yr)		
635 Computer Maintenance & Repair 2 (1/2 yr)		
636 Open Source Operating System./Appl. (1/2 yr)		
637 Networking and Computer Security (1/2 yr)		
Drafting (Choose from below)		
650 Mechanical Design 1 (1/2 yr)		
651 Architectural Design 1 (1/2 yr)		
652 Introduction to Engineering (1/2 yr)		
653 Introduction to Architectural (1/2 yr)		
654 CAD 2-Mechanical or Architectural		
655 3D Modeling-Mechanical or Architectural		
Web Page Design		
640 Visual Design (1/2 yr)		
641 Web Page Design/Development 1 (1/2 yr)		
642 Web Page Design/Development 2 (1/2 yr)		
643 Digital Media 1 (1/2 yr)		
644 Digital Media 2 (1/2 yr)		
645 Multimedia Design: Flash 1 (1/2 yr)		
646 Multimedia Design: Adv. Flash (1/2 yr)		
647 Web Scripting and Programming (1/2 yr)		

VOCATIONAL – Portland Arts & Technology (See Guidance Counselor for information and registration)

Auto Collision
Commercial Art
Dance
Fast Foods
Graphic Arts & Printing
Health Science Careers
Horticulture
Hospitality
Lodging Management
Manufacturing Technology
Masonry
Music
Plumbing & Heating
Recreational & Marine Repair
Retail & Fashion Merchandising
Video Technology/Multi-Media

COURSE LISTING

GRADE 12

Classes are year long unless otherwise noted.

WELLNESS

- 001 Physical Education
- 005 Healthy Me (1/2 yr)
- 010 Team Sports (1/2 yr)
- 011 Weight Training (1/2 yr)
- 012 Peer Tutor for Adaptive P.E. I (1/2 yr)
- 013 Peer Tutor for Adaptive P.E. II (1/2 yr)
- 014 Nutrition (1/2 yr)
- 015 Life Management 101 (1/2 yr)
- 016 Life Management 102 (1/2 yr)
- 017 Healthy Leisure Activities (1/2 yr)
- 018 Leadership (1/2 yr)

ENGLISH

- 150 A.P. English
- 140 Honors English 4
- 141 English 4
- 143 Reading and Writing Workshop IV

SOCIAL STUDIES

- 237 Anthropology (1/2 yr)
- 238 Economics in the 21st Century (1/2 yr)
- 240 American Government (1/2 yr)
- 246 Social Psychology (1/2 yr)
- 248 Current Events (1/2 yr)
- 249 Senior History (1/2 yr)
- 250 A.P. Psychology
- 251 A.P. U.S. History

MODERN & CLASSICAL LANGUAGES

- 310 French I
- 320 French II
- 330 French III
- 340 French IV
- 350 A.P. French Language
- 312 Latin I
- 322 Latin II
- 332 Latin III
- 342 Latin IV
- 313 Spanish I
- 323 Spanish II
- 333 Spanish III
- 343 Spanish IV
- 353 A.P. Spanish Language
- 314 Chinese I
- 324 Chinese II
- 334 Chinese III
- 345 Crossing The Border (Elective - 1/2 yr)

MATHEMATICS

- 431 Algebra II
- 432 Financial Planning
- 440 Honors Pre-Calculus
- 441 Pre-Calculus
- 443 Finite Mathematics
- 450 A.P. Calculus

SCIENCE

- 515 Applied Engineering (1/2 yr)
- 530 Honors Chemistry/Lab
- 531 Chemistry/Lab
- 532 Applied Chemistry (1/2 yr)
- 538 Applied Chemistry (Remedial) (1/2 yr)
- 533 Applied Physics (1/2 yr)
- 539 Applied Physics (Remedial) (1/2 yr)
- 535 Marine Science/Ecology (1/2 yr)
- 536 Environmental Issues (1/2 yr)
- 537 Biotechnology (1/2 yr)
- 540 Honors Physics/Lab
- 541 Physics/Lab
- 543 Anatomy and Physiology
- 550 A.P. Chemistry
- 551 A.P. Physics
- 552 A.P. Biology

FINE ARTS

- 137 Public Speaking (1/2 yr)
- 138 Discussion & Debate (1/2 yr)
- 910 Foundations of Art One
- 920 Drawing & Painting (1/2 yr)
- 921 Fine Functional Arts (1/2 yr)
- 933 Studio Art B
- 936 Computer Art
- 938 Photography
- 940 Concert Band
- 941 Music Appreciation (1/2 yr)
- 942 Music Theory
- 943 Wind Ensemble
- 944 Concert Chorale
- 945 Chamber Singers
- 946 Music Technology (1/2 yr)
- 947 Piano Lab (1/2 yr)
- 948 Melody & Improvisation
- 960 Introduction to Theater (1/2 yr)
- 961 Theater Production I (1/2 yr)
- 962 Theater Production II, III,IV

COURSE LISTING

GRADE 12

Classes are year long unless otherwise noted.

CAREER AND TECHNICAL EDUCATION/VOCATIONAL WESTBROOK

	Tech 1	Tech 2	Tech 3
Automotive Technology	705	706	707
Building Trades	711	712	713
Commercial Truck Driving	723	724	
Culinary Arts	734	735	736
Early Childhood Occup.	728	729	730
Electricity	717	718	719
Heavy Equipment Oper.	750	751	
Marketing Education	740	741	742
Medical Occupations	720	721	722
Public Safety	744	745	746
Business Department (Choose from below)			
611 Microsoft Office Word & Access (1/2 yr)			
612 Microsoft Office Excel & Powerpoint (1/2 yr)			
613 Accounting/Quickbooks			
614 Human Resource Management (1/2 yr)			
615 Business Operations Management (1/2 yr)			
616 Advanced Computer Applications (1/2 yr)			
617 Microsoft Certification (1/2 yr)			
Computer Repair & Networking (Choose from below)			
630 Intro to Computer Hardware (1/2 yr)			
631 Robotics (1/2 yr)			
632 Cisco Academy I (1/2 yr)			
633 Cisco Academy II (1/2 yr)			
634 Computer Maintenance & Repair 1 (1/2 yr)			
635 Computer Maintenance & Repair 2 (1/2 yr)			
636 Open Source Operating System./Appl. (1/2 yr)			
637 Networking and Computer Security (1/2 yr)			
Drafting (Choose from below)			
650 Mechanical Design 1 (1/2 yr)			
651 Architectural Design 1 (1/2 yr)			
652 Introduction to Engineering (1/2 yr)			
653 Introduction to Architectural (1/2 yr)			
654 CAD 2-Mechanical or Architectural			
655 3D Modeling-Mechanical or Architectural			
Web Page Design			
640 Visual Design (1/2 yr)			
641 Web Page Design/Development 1 (1/2 yr)			
642 Web Page Design/Development 2 (1/2 yr)			
643 Digital Media 1 (1/2 yr)			
644 Digital Media 2 (1/2 yr)			
645 Multimedia Design: Flash 1 (1/2 yr)			
646 Multimedia Design: Adv. Flash (1/2 yr)			
647 Web Scripting and Programming (1/2 yr)			
647 Web Scripting and Programming (1/2 yr)			

VOCATIONAL – Portland Arts & Technology (See Guidance Counselor for information and registration)

Auto Collision
 Commercial Art
 Dance
 Fast Foods
 Graphic Arts & Printing
 Health Science Careers
 Horticulture
 Hospitality
 Lodging Management
 Manufacturing Technology
 Masonry
 Music
 Plumbing & Heating
 Recreational & Marine Repair
 Retail & Fashion Merchandising
 Video Technology/Multi-Media

WELLNESS DEPARTMENT

001 PHYSICAL EDUCATION: Grades 9,10,11,12 1 Carnegie Unit

Physical education is a year course, which requires appropriate dress and active participation. The course includes an introduction to numerous team sports, individual sports, and components of fitness. Students are required to keep activity logs, assess their own fitness levels, and set realistic fitness goals. This course is a graduation requirement.

003 HEALTH: Grade 10 .5 Carnegie Unit

This course is a one-semester opportunity for students to increase their knowledge and examine their own lifestyles in the areas of mental health, healthy relationships and family life, communicable and chronic diseases, substance abuse, and wellness promotion. This course is a graduation requirement.

004 ADAPTIVE HEALTH: Grade 10 .5 Carnegie Unit

This course is designed to benefit students with disabilities. The course follows the traditional sophomore health class, with emphasis on increasing their knowledge and examining their own life styles in area of personal health, nutrition, personal hygiene, consumerism, decision making, problem solving, current events, and healthy relationships.

005 HEALTHY ME Grades 10,11,12 .5 Carnegie Unit

This course is designed for the student who wants to explore the benefits of physical fitness and nutrition. Emphasis will be on individual fitness plans and exploration of current nutrition practices. Class time will be devoted to developing personal wellness plans both nutritionally and physically.

PREREQUISITE: Interview process with Healthy Me staff

010 TEAM SPORTS Grade 11,12 .5 Carnegie Unit

This semester course is designed for students who have completed their PE requirement. The course requires appropriate dress and active participation in numerous team and individual sports. Written work will be required.

PREREQUISITE: Successfully completed P.E.

011 WEIGHT TRAINING: Grades 11,12 .5 Carnegie Unit

This course will include elements of anatomy, physiology, and current weight-training principles. Students will be required to develop and participate in a self-designed program.

012 PEER TUTOR FOR ADAPTIVE PHYSICAL EDUCATION I: Grades 11,12 .5 Carnegie Unit

This course is designed to dually benefit the student with disabilities and the peer tutor. The course will prepare students to recognize the abilities as well as the disabilities of their peers who are mentally and physically challenged. Peer Tutoring will benefit students who are considering careers in education, human services, physical therapy, and occupational therapy. Students may sign up for two semesters, but will only receive credit for one semester.

PREREQUISITE: Successfully completed P.E.

013 PEER TUTOR FOR ADAPTIVE PHYSICAL EDUCATION II: Grades 11,12 .5 Carnegie Unit

This course is second in a two-part course. The students will continue to work with students with disabilities and/or with traditional students. This class will include the skills learned in Peer Tutor I with added emphasis on lesson plan development, implementation and assessment. Students will be outsourced to the middle school and elementary school in order to broaden their experience. This course will benefit students interested in careers in education, human services, physical therapy, or occupational therapy.

PREREQUISITE: Successfully completed Peer Tutor/Adaptive PE I

014 NUTRITION: Grades 11,12 .5 Carnegie Unit

This semester course will combine nutrition and fitness education. The students will have the opportunity to study such topics as disordered eating, nutrients, meal planning, consumerism, weight control, vegetarian diets, nutrition for athletes, and overall wellness through diet and health link.

015 LIFE MANAGEMENT 101: Grades 11,12 .5 Carnegie Unit

This semester long course is designed to emphasize goal setting, decision making, time management and healthy life style choices and activities through the topics of personal career and interest investigation, personal money management, consumerism, advertising, nutrition, paychecks, banking, and insurance. The goal of this course is to educate the student to be an educated consumer.

016 LIFE MANAGEMENT 102:**Grades 11,12****.5 Carnegie Unit**

This semester long course is a human growth and development course with a myriad of topics/situations faced today by both the individual and the family. Working through the Eight Stages of personality Development, some of the concepts to be investigated include: social issues of young adults, relationships – including preparation for healthy relationships; human sexuality; understanding the male and female roles in society and the family; and the many transitions which may occur throughout life. During this course the student will develop and practice skills in goal setting, decision making, and the management of personal resources in order to enrich their quality of life.

017 HEALTHY LEISURE ACTIVITIES:**Grades 11,12****.5 Carnegie Unit**

This is a course for a highly motivated student who shows leadership skills. This course allows the student, with the guidance of the Wellness staff, to design an independent semester long project/activity. This presentation must be approved by the Wellness faculty prior to the course beginning. It will require project approval, measurable goals, benchmark meetings, and a final assessment. The following activities are suggested, but not limited to: quilting/clothing construction; design and implement a community health and wellness activity; internship in a community health organization; housing and interior design project.

018 LEADERSHIP:**Grades 11,12****.5 Carnegie Unit**

This course will cover the principals of leadership with an emphasis on student interests. Students will investigate motivation, empowering people, communication skills, team building activities and achievement. Other areas of focus will be principals of coaching, first aid and areas of wellness occupations. This course includes a culminating group experience that will implement the student's knowledge through a real life activity.

ENGLISH DEPARTMENT

110 HONORS ENGLISH I:

Grade 9

1 Carnegie Unit

Honors English is a fast-paced class for dedicated students of English whose writing and reading skills are well developed. This class will challenge gifted English students with demanding classical and contemporary readings including: Romeo and Juliet, To Kill a Mockingbird, The Odyssey, and Great Expectations. The course continues to develop and refine the skills of writing effectively, reading critically, speaking persuasively and listening carefully. Grammar as taught through writing and students will complete the Sadlier-Oxford Vocabulary Curriculum Level E. Summer reading and writing are required.

111 ENGLISH I:

Grade 9

1 Carnegie Unit

This class encourages developing proficiency in the basic skills of writing effectively, reading critically, speaking persuasively, and listening carefully. The course will focus on a thematic approach to literature introducing students to several universal themes. A variety of classic and contemporary texts of varying lengths will be used including: Romeo and Juliet, To Kill a Mockingbird, and Speak. Grammar is taught through writing, and students will complete Sadlier-Oxford Vocabulary Workshop curriculum Level D.

113 READING AND WRITING WORKSHOP I:

Grade 9

1 Carnegie Unit

The course goal is to build reading/writing fluency and proficiency while developing vocabulary. Grammar is taught through writing. The reading focus is a study of identity through various classic and modern titles as well as independent selections. Acceptance into the course is through placement by Department Chair and administrative recommendation only.

120 HONORS ENGLISH II:

Grade 10

1 Carnegie Unit

A rigorous and demanding course with intense reading, writing, and vocabulary instruction. Much emphasis is placed on the process of writing both analytically and in a research fashion. A thesis-based research paper formatted to MLA standards is a focal point of one quarter. Grammar is taught and reinforced through writing. A myriad of cultural literature will be used including Lord of the Flies, Macbeth, Oedipus, Of Mice and Men, A Prayer for Owen Meary, Plain Truth, and Walk In My Shoes. Students will complete Sadlier-Oxford Vocabulary Workshop curriculum Level F. Summer reading and writing are required.

121 ENGLISH II:

Grade 10

1 Carnegie Unit

A year-long focus on reading, writing, and vocabulary with emphasis placed on analytical thinking. The study of cultural literature including Lord of the Flies, Of Mice and Men, Oedipus, and Macbeth will be used to foster an appreciation of literature. Grammar is taught through writing. A formal research paper is mandatory and formatted to MLA style. Students will complete Sadlier-Oxford Vocabulary Workshop curriculum Level E.

123 READING AND WRITING WORKSHOP II:

Grade 10

1 Carnegie Unit

The course goal is to build reading/writing fluency and proficiency while developing vocabulary. Grammar is taught through writing. The reading focus is a study of cultural literature while independent reading is encouraged. Students will complete Sadlier-Oxford Vocabulary Workshop curriculum Level D. Acceptance into the course is through placement by Department Chair and administrative recommendation only.

130 HONORS ENGLISH III:

Grade 11

1 Carnegie Unit

A class for the gifted English student which introduces the techniques of critical analysis, developmental reading and writing in the creative and academic modes. The study of major American authors will be the focus with the essay as the featured writing response. Titles include: The Scarlet Letter and/or The Crucible, The Catcher in the Rye, The Great Gatsby, and The Adventures of Huckleberry Finn. Students will complete Sadlier-Oxford Vocabulary Workshop curriculum Level G. Correct and accomplished use of language is a requirement as is the reading of two summer novels and reflective writing.

131 ENGLISH III:

Grade 11

1 Carnegie Unit

This class emphasizes the reading process, focusing on comprehension, application, and vocabulary development. The study of American literature is emphasized including titles: The Scarlet Letter and/or The Crucible, The Catcher in the Rye, The Great Gatsby, and The Adventures of Huckleberry Finn, various short stories, and poetry. Writing techniques are taught in a process based writing component including a formal persuasive essay. Grammar is taught through writing. Students will complete Sadlier-Oxford Vocabulary Workshop curriculum Level F.

SOCIAL STUDIES DEPARTMENT

210 HONORS WORLD STUDIES I:

Grade 10

1 Carnegie Unit

In this challenging course, students will explore the dawn of civilization by studying the evolution of writing, religion and government through the civilizations of Mesopotamia, Egypt, Greece and Rome, as well as those in the Far East. In addition, students will study the development of Europe during the Middle Ages to gain insight into origins of Western culture and to help them understand the modern world. Students will strengthen reading comprehension, research, writing and presentation skills through the use of a variety of primary and secondary sources.

211 WORLD STUDIES I:

Grade 9

1 Carnegie Unit

This heterogeneously grouped course is required of all freshmen. Students will explore the dawn of civilization by studying the evolution of writing, religion and government through the civilizations of Mesopotamia, Egypt, Greece and Rome, as well as those in the Far East. In addition, students will study the development of Europe during the Middle Ages to gain insight into origins of Western culture and to help them understand the modern world. Students will also strengthen reading comprehension, research and writing skills.

213 WORLD STUDIES I (Remedial):

Grade 9

1 Carnegie Unit

Students will explore the dawn of civilization by studying the evolution of writing, religion and government through the civilizations of Mesopotamia, Egypt, Greece and Rome, as well as those in the Far East. In addition, students will study the development of Europe during the Middle Ages to gain insight into origins of Western culture and to help them understand the modern world. Students will also strengthen reading comprehension, research and writing skills. Acceptance into the course is through placement by Department Chair and administrative recommendation only.

220 HONORS WORLD STUDIES II:

Grade 10

1 Carnegie Unit

This rigorous course is a continuation of the freshman World Studies I that begins with the development of nation states in the 1600's and moves to the systemic change and conflicts of the 18th and 19th centuries, including the Industrial Revolution, imperialism in Africa and Asia, and concludes with the world wars and the advent of 20th century dictatorships. Students will continue to strengthen their reading, writing, research and presentation skills through the in-depth analysis of primary and secondary sources.

221 WORLD STUDIES II:

Grade 10

1 Carnegie Unit

This course is a continuation of the freshman World Studies I. It is a required year-long course that continues with the development of nation states in the 1600's, revolutions of the 18th and 19th centuries, including the Industrial Revolution, imperialism in Africa and Asia, the world wars and the advent of 20th century dictatorships. The course is heterogeneously grouped, and students will continue to strengthen their reading, writing, and research skills.

222 WORLD STUDIES II WORKSHOP:

Grade 10

1 Carnegie Unit

This course is a continuation of the freshman World Studies I. It is a year-long course that follows the Social Studies department Essential Outcomes. A central focus will be for students to strengthen their reading, writing, research and presentations skills on a variety of topics that range from the Protestant Reformation to the rise of 20th century dictatorships. Acceptance into the course is through placement by department chair or administrative recommendation only.

223 WORLD STUDIES II (Remedial):

Grade 10

1 Carnegie Unit

This course is a continuation of the freshman World Studies I. It is a required year long course that continues with the development of nation states in the 1600's, revolutions of the 18th and 19th centuries, including the Industrial Revolution, imperialism in Africa and Asia, the world wars and the advent of 20th century dictatorships. Acceptance into the course is through placement by Department Chair and administrative recommendation only.

230 HONORS U.S. HISTORY:

Grade 11

1 Carnegie Unit

This course is more in depth than the standard survey course. The first quarter is devoted to the Constitution. That allows the last three quarters to be devoted to U.S. History from Gilded Age through the 20th Century. Students work with document analysis, college level readings and expository writing. Summer reading is required.

231 U.S. HISTORY: **Grade 11** **1 Carnegie Unit**
This class will cover the Constitution before focusing on the United States since 1877. A strong emphasis will be placed on the 20th Century. The course will focus on developing reading, writing, and research skills for the college bound student.

233 U.S. HISTORY (Remedial): **Grade 11** **1 Carnegie Unit**
A survey course introducing the central themes of the history of the United States. Acceptance into the course is through placement by Department Chair and administrative recommendation only.

237 ANTHROPOLOGY: **Grades 11,12** **.5 Carnegie Unit**
Anthropology is the study of mankind. Students will investigate the origins and development of the human race from its earliest beginnings in terms of how we evolved physically and culturally (how we live). An exploration into a wide variety of world cultures will examine how where we live affects how we live. Journal articles, class discussion of topics such as alternative theories of evolution, independent research and presentations help keep student participation very active.

238 ECONOMICS IN THE 21st CENTURY: **Grades 11,12** **.5 Carnegie Unit**
Economics is the study of how people make choices. Individuals, families, businesses, and societies must decide how to use limited resources to fulfill their unlimited wants and needs. This course will introduce students to microeconomics or how individuals and businesses make decisions that maximize their resources. It will also explore the macro economy or the way the country as a whole operates. Students will examine how economics serves to inform decisions in terms of personal finance, production, distribution and consumption. The class will include current events, hands-on learning and economic simulations.

240 AMERICAN GOVERNMENT: **Grade 12** **.5 Carnegie Unit**
This course examines the role of American government and politics in people's lives, the functions and responsibilities of government, as well as the responsibilities of citizenship. The course is centered around important documents such as the Declaration of Independence (the why) and the United States Constitution (the how). Students study various components of the executive, legislative, and judicial branches with special emphasis on the Bill of Rights. Each of these topics are discussed from an historical perspective while simultaneously placing them in the context of contemporary issues.

246 SOCIAL PSYCHOLOGY: **Grade 12** **.5 Carnegie Unit**
This course is an amalgamation of the social sciences that will help you learn about how people behave both as individuals and groups. In the pursuit of our studies we will encounter "hot button" topics or issues that may or may not have clear answers such as race, gender roles, class stratification, prejudice, psychological disorders, crime and biology versus environment. Class discussions and student centered activities will be at the front of our exploration of these topics. Since we are dealing with people, there is no one single theory or exact model that works 100% of the time. To that end, your first question may be why?

248 CURRENT EVENTS: **Grade 12** **.5 Carnegie Unit**
The curriculum is decided by the teacher and students. Past topics have included genocide, terrorism, drug trafficking, guns and violence, modern catastrophes (i.e. Hurricane Katrina), trade, environmental issues, and modern politics. Project-oriented student activities will be featured such as video presentations, debates and discussions, and other hands-on activities.

249 SENIOR HISTORY: **Grade 12** **.5 Carnegie Unit**
This semester elective is open to seniors interested in focusing on historical topics not offered or only touched upon in other history courses. The content focus first quarter begins with the Cold War from the end of WW II through Vietnam to the Cuban Missile Crisis. Focus is on US domestic and foreign policies and making connections on how these decisions impact policies made today. Second quarter curriculum focus is student and instructor generated.

250 ADVANCED PLACEMENT PSYCHOLOGY:**Grade 12****1 Carnegie Unit**

This class is designed for those students who wish to experience a university-level introductory course in psychology, and prepare for the very rigorous AP exam in May. Psychology is the study of behavior and mental processes. It is a science with roots in the fields of biology, philosophy and physiology. Discussions, lectures, and assignments will introduce the student to developing an understanding of human behavior. The primary questions addressed in the course, will be "Why do people act the way that they do in specific situations?" and "How can people change their behaviors?" Placement is based on teacher recommendation and evaluation of a student essay. *Students must declare their intent to participate in the AP Exam by registering and paying for the exam (estimated cost around \$86) following the end of the first quarter. In the event a student elects not to take the exam, the AP designation will not be reflected on the student's transcript and honors weight will be given in their GPA..*

251 ADVANCED PLACEMENT U.S. HISTORY:**Grade 12****1 Carnegie Unit**

This course follows the Advanced Placement curriculum of Educational Testing Systems, Princeton, NJ. The course is designed for students who wish to pursue this discipline and content further in college, and/or who desire a fast-paced and rigorous, in-depth study of American history. The course will cover American history from the Era of European Exploration to modern times. Students will further develop their reading and writing skills; their ability to critically analyze primary sources, and creating and supporting a thesis. Placement is based on teacher recommendation and evaluation of a student essay. *Students must declare their intent to participate in the AP Exam by registering and paying for the exam (estimated cost around \$86) following the end of the first quarter. In the event a student elects not to take the exam, the AP designation will not be reflected on the student's transcript and honors weight will be given in their GPA..*

MODERN AND CLASSICAL LANGUAGE DEPARTMENT

310 FRENCH I: Grades 9,10,11,12 1 Carnegie Unit

This is an introductory course intended for students who have had little or no exposure to the French language. By focusing on the four key areas of listening, speaking, reading and writing, students will build their communications skills and be introduced to the French-speaking world. By the end of French I, students will be able to understand and participate in basic conversations about themselves and their immediate environment.

320 FRENCH II: Grades 9,10,11,12 1 Carnegie Unit

This course is designed to improve the students' pronunciation and intonation, to strengthen students' mastery of the structures learned in French I, and to add to these more complex structures and vocabulary. Students will continue to broaden their knowledge of the culture of the French-speaking world. By the end of French II, students will be able to discuss a wider variety of topics using the past, present, and future tenses. Incoming freshmen who have taken French at the junior high are eligible to take this course with teacher approval.

PREREQUISITE: Successful completion of French I

330 FRENCH III: Grades 10,11,12 1 Carnegie Unit

This course is designed to acquaint the student with the cultural, literary, and historical background of France; to prepare the student to read and understand French of moderate difficulty; and to improve vocabulary, rate of speed of reading, and understanding of sentence structure. By the end of French III, students will be able to speak French with moderate ease and acceptable pronunciation.

PREREQUISITE: Successful completion of French II

340 FRENCH IV: Grades 11,12 1 Carnegie Unit

French IV is a high-level mastery course, emphasizing the speaking, writing, reading, and understanding of the French language, as well as increased insight into the cultural, historical, and literary background of the French-speaking world. This course will be conducted primarily in French.

PREREQUISITE: Successful completion of French III

350 ADVANCED PLACEMENT FRENCH LANGUAGE: Grade 12 1 Carnegie Unit

This is an immersion course intended for those who, having completed a four-year sequence of French study, choose to continue to develop their proficiency in active communication, vocabulary development, reading, and writing. Included are writing exercises, selected grammar reviews, picture series, wide-ranging reading selections, and varied communicative experiences. Class activities are designed to prepare students for the Advanced Placement French Language exam in May. *Students must declare their intent to participate in the AP Exam by registering and paying for the exam following the end of the first quarter. In the event a student elects not to take the exam, the AP designation will not be reflected on the student's transcript and honors weight will be given in their G.P.A..*

PREREQUISITE: Successful completion of French IV

312 LATIN I: Grades 9,10,11,12 1 Carnegie Unit

This is the beginning course for students who wish to explore our Latin heritage – grammatical structures, vocabulary, literature, and societal influences. Latin I will significantly enhance students' understanding of English grammar, word derivation, and sentence structure, as well as provide a valuable perspective regarding the modern world.

322 LATIN II: Grades 10,11,12 1 Carnegie Unit

Latin II is a continuation of the study of Latin I, including more complex grammatical constructions. The students will continue the study of the language itself and the customs and civilization of the Roman people.

PREREQUISITE: Successful completion of Latin I

332 LATIN III: Grades 11,12 1 Carnegie Unit

This course is a continuation of Latin II. Much emphasis is placed on readings in Latin - primarily excerpts from mythology, history and literature - including such writers as Ovid, Vergil, Catullus, Livy, and Caesar. There is continued emphasis on Latin grammar, but more focus on Latin - English derivation in vocabulary, as well as Roman history and geography, and every day life in the Roman World.

PREREQUISITE: Successful completion of Latin II

- 342 LATIN IV:** **Grade 12** **1 Carnegie Unit**
 This course focuses on literature and life during the early part of the "Pax Romana" in Roman history. Such writers as Vergil, Catullus, and Livy are discussed and read in both English and Latin. Derivative study, short Roman historical fiction novels in English, and cultural aspects such as Rome the City and Roman landmarks throughout the world are topics of this class.
PREREQUISITE: Successful completion of Latin III
- 313 SPANISH I:** **Grades 9,10,11,12** **1 Carnegie Unit**
 This course introduces students to the study of the Spanish language, covering basic geography, culture, grammar, and the four fundamental areas of learning: speaking, listening, reading and writing. This course offers a diverse experience in all that learning Spanish has to offer.
- 323 SPANISH II:** **Grades 9,10,11,12** **1 Carnegie Unit**
 The course develops and emphasizes students' skills in grammar and speech, while offering the opportunity to increase reading, writing, and translating abilities. Students will be exposed to short pieces of literature and will continue their study of Spanish culture. Incoming 9th graders who have taken Spanish at WJHS are eligible to take this course with the approval of the teacher.
PREREQUISITE: Successful completion of Spanish I
- 333 SPANISH III:** **Grades 10,11,12** **1 Carnegie Unit**
 In this class, vocabulary is increased and grammar items are reviewed along with learning new ones. Reading is highlighted within the basic text as well as with readers. Audio tapes accompany text materials. There is more emphasis on speaking Spanish throughout this course. Written summaries of reading materials increase proficiency in this area.
PREREQUISITE: Successful completion of Spanish II
- 343 SPANISH IV:** **Grades 11,12** **1 Carnegie Unit**
 Spanish IV is an advanced course taught almost entirely in Spanish focusing on interesting and relevant topics. A conversation text as well as a civilization and culture text, thematically integrated, are utilized. Students are provided with a CD to accompany the text to use at home. Spanish readers are used as well.
PREREQUISITE: Successful completion of Spanish III
- 353 ADVANCED PLACEMENT SPANISH LANGUAGE:** **Grade 12** **1 Carnegie Unit**
 This course is intended for those who, having completed a four-year sequence of the study of Spanish, elect to continue to develop their proficiency in active communication, vocabulary development, reading, and writing. Included are writing exercises, selected grammar reviews, wide-ranging reading selections, and communicative experiences through such means as discussion, role-playing, and performances of various types. Standards met by this course: person-to-person communication; reading, listening, and viewing for understanding; oral and written presentations; workings of language; cultural practices, products, and perspectives; cross-cultural connections and comparisons. *Students must declare their intent to participate in the AP Exam by registering and paying for the exam following the end of the first quarter. In the event a student elects not to take the exam, the AP designation will not be reflected on the student's transcript and honors weight will be given in their G.P.A. .*
PREREQUISITE: Successful completion of Spanish IV
- 314 CHINESE I:** **Grades 9,10,11,12** **1 Carnegie Unit**
 This beginning level Chinese course offers an introduction to the Chinese language and culture. It focuses on listening and speaking of basic everyday Mandarin Chinese, as well as reading and writing traditional Chinese characters and the pronunciation system of Pinyin. By the end of Chinese I, students will be able to understand and participate in basic conversations about themselves, and will read and write in traditional Chinese characters and Pinyin about themselves.
- 324 CHINESE II:** **Grades 10,11,12** **1 Carnegie Unit**
 This second year Chinese course is to continue to develop and to improve students' basic Mandarin Chinese conversational abilities, reading and writing in traditional Chinese characters and Pinyin, while increasing their knowledge of Chinese culture. By the end of Chinese II, students will be able to understand and participate in conversations, as well as read and write about themselves and their immediate environment.
PREREQUISITE: Successful completion of Chinese I

334 CHINESE III:**Grades 11,12****1 Carnegie Unit**

The course is designed to continue developing students' spoken and written Chinese with an emphasis on extending the basic conversational topics and on improving reading and writing in traditional Chinese. By the end of Chinese III, students will be able to speak Mandarin Chinese with moderate ease, and read and write short compositions.

PREREQUISITE: Successful completion of Chinese II**345 CROSSING THE BORDER:****Grades 10,11,12****.5 Carnegie Unit**

This elective course is open to upperclassmen regardless of foreign language background. It is a culturally oriented course designed to increase students' awareness of the shrinking global community. The course explores the language, everyday life, customs and traditions, geography, current events, and cultural aspects of a wide range of the world's societies. The goals of the course are to dispel common cultural misconceptions and national stereotypes, to explore travel and career possibilities, and to enhance the students' sense of their linguistic and cultural heritage.

MATHEMATICS DEPARTMENT

411 ALGEBRA I: Grades 9,10 1 Carnegie Unit

This class emphasizes application, problem solving and critical thinking. Topics include, but are not limited to: linear equations, inequalities, factoring, rational expressions, functions, linear graphing, radicals, quadratics, statistics and probability. (*Honors level work is offered to every student that chooses to participate in it. Materials are handed out to all students by their teacher during the first full week of school. A decision must be made and the teacher notified during the first two full weeks of the first quarter.*)

PREREQUISITE: Successful completion of previous Math course*

412 ALGEBRA IA: Grade 9 1 Carnegie Unit

Algebra IA includes the outcomes from the first semester of Algebra I but is spread out over a full school year. It is designed for students who require more time and support in thinking abstractly. The course emphasizes application of algebraic techniques to solve problems. Topics include, but are not limited to: simplifying algebraic expressions, computing with decimals and fractions, solving equations and inequalities, writing equations and inequalities, and graphing equations and inequalities. Students will need to take the Algebra IB course the following year to complete the Algebra I outcomes. Students who score below 230 on the Spring NWEA may be required to enroll in a Math Lab for additional support.

413 ALGEBRA IB: Grade 10,11,12 1 Carnegie Unit

Algebra IB is the second course of a two course sequence, following Algebra IA. It includes the outcomes from the second semester of Algebra I, but is covered over a full school year. It is designed for students who require more time and support in thinking abstractly. The course emphasizes applications of algebraic techniques to solve problems. Topics include, but are not limited to, solving systems of inequalities, arithmetic operations with polynomials, factoring, and solving rational and radical equations. Students who score below 234 on the Spring NWEA may be required to enroll in a Math Lab for additional support.

PREREQUISITE: Successful completion of Algebra IA

420 HONORS GEOMETRY: Grades 9,10 1 Carnegie Unit

A rigorous course for highly motivated students who have demonstrated a strong talent for Mathematics and may explore a career in math/science fields. This course is a study of plane, Euclidean, and solid geometry. The course emphasizes problem solving using algebraic and numerical computation with a focus on both inductive and deductive reasoning. Students will use geometric relationships and apply these in geometric proof.

PREREQUISITE: Teacher recommendation

421 GEOMETRY: Grades 10,11 1 Carnegie Unit

This course develops logical thought, reasoning, problem solving, and both verbal and written communication. Connections to other disciplines will be made as well as an awareness of geometry in the environment. Units include but are not limited to: Lines and Angles, Triangles, Quadrilaterals, Circles, Area and Volume. Algebraic skills and concepts are integrated throughout.

PREREQUISITE: Successful completion of Algebra I *

430 HONORS ALGEBRA II: Grades 10,11 1 Carnegie Unit

This course is an extension of the following algebra topics: inequalities, absolute value, functions (linear, quadratic, rational) and their graphs. The balance of the course is dedicated to the study of complex numbers, exponential and logarithmic functions, conics, trigonometry and the unit circle. There is a strong emphasis on formal application of algebraic principals and proof.

PREREQUISITE: Successful completion of Honors Geometry or teacher recommendation

431 ALGEBRA II: Grades 11,12 1 Carnegie Unit

Algebra II is an extension of the topics covered in Algebra I as well as an in-depth analysis of new topics such as linear programming, polynomial equations and inequalities, complex numbers, quadratics, probability, statistics, and logarithmic equations to name a few. There is an emphasis on application, problem solving and critical thinking. Graphing calculators will be used to explore various concepts. This course is designed for students going on to post-secondary education who require a deeper level of mathematical understanding. Successful students in this class have a strong work ethic and solid understanding of Algebra I concepts (earned at least a 77% for the year).

PREREQUISITE: Successful completion of Geometry

432 FINANCIAL PLANNING: Grades 11,12 1 Carnegie Unit

This course is for self-motivated students who have a strong Geometry background. Financial Planning places a heavy emphasis on long-term project-based learning covering the four main topics: personal money management, debt management, retirement planning, and investing. Students need to have solid reading comprehension and writing skills in order to complete all projects.

PREREQUISITE: Recommendation of teacher or counselor

SCIENCE DEPARTMENT

510 HONORS EARTH SCIENCE/LAB:

Grade 9

1 Carnegie Unit

This course is designed to provide students with a detailed look into the systems and processes that have shaped and continue to influence our Earth. Topics explored include: geology/tectonics and other processes of change, hydrology, meteorology and astronomy. These specific disciplines naturally interweave and overlap and will be explored and discovered through lab activities, simulations, textbook readings, class discussions, inquire-based lessons, and field trips. This is a class for the student who is an active thinker and problem solver; both the pace of the course and the subject matter is rigorous. A summer assignment will be required.

511 EARTH SCIENCE:

Grade 9

1 Carnegie Unit

This course is an integrated study of Earth's history, composition and structure, its atmosphere and oceans, and relationship to other objects in our solar system and the universe. The concepts embedded in Earth Science are essential for a true understanding of how our planet works. Earth Science is designed to approach topics in a variety of ways, including lab activities, experiments, selected readings, and class discussions. Through thought provoking questions and lessons designed to show you "how" and "why" earth systems and processes work, we hope to develop in our students a curious outlook on our world, and provide for them the tools to answer their questions about how the world works.

512 EARTH SCIENCE WORKSHOP:

Grade 9

1 Carnegie Unit

This course goal is to build skills that will enable academic success in the sciences. Specific skills targeted will include study habits, organizational skills, and problem-solving through scientific investigation. Content areas covered may include measurement and mapping, geology, tectonics, and meteorology. Acceptance into the course is through placement by Department Chair and administrative recommendation only.

513 EARTH SCIENCE (Remedial):

Grade 9

1 Carnegie Unit

This course will follow the goals and objectives of Earth Science, at a pace designed to meet the needs of its students. Evaluation will be on an individual basis. Acceptance into the course is through placement by Department Chair and administrative recommendation only.

515 APPLIED ENGINEERING:

Grades 9,10,11,12

.5 Carnegie Unit

What exactly is engineering? This project focused class is designed to answer this question and get students excited about possible careers in engineering. In this semester-long elective, students will apply physical science through hands-on activities in several major areas including: chemical, electrical, mechanical, environmental, and civil engineering. In groups, students will be given a task to accomplish or device to build. Each group will brainstorm then physically implement their idea. Students may take this class more than one time as projects will vary from semester to semester.

520 HONORS BIOLOGY/LAB:

Grades *9,10

1 Carnegie Unit

This course is an accelerated biology program for students who have a strong foundation in science and mathematics, and a proficiency in reading and writing. In addition, they must have excellent study skills and a dedication to a higher level of performance. Laboratory activities are a major component of this course and are highly emphasized. A focus is placed on molecular biology as it pertains to classifying life forms, ecology, cell structure and function, and continuity and change.

**PREREQUISITE: Honors Earth Science/Earth Science or recommendation from previous Science teacher
*9th grade students – placement subject to department chair/administrative approval – also required to concurrently take
Honors Earth Science or Earth Science**

521 BIOLOGY/LAB:

Grade 10

1 Carnegie Unit

The course is laboratory oriented program focused on building literacy using scientific communication tools. Topics to be examined may include classifying life forms, cells, ecological issues, and continuity in change. An emphasis will be placed on laboratory exercises and laboratory reports as a vehicle to build skills toward becoming a self-directed learner.

- 522 BIOLOGY WORKSHOP:** **Grade 10** **1 Carnegie Unit**
 The goal of this course is to develop science literacy skills by emphasizing scientific vocabulary building through a variety of activities. Organization and study skills will be a major focus of this class to support success in the sciences. Topics covered may include classifying life forms, cells ecological issues, and continuity in change. Laboratory skills will be taught using hands-on activities and problem solving through scientific investigation. Acceptance into this course requires placement by Department Chair and administrative recommendation only.
- 523 BIOLOGY (Remedial):** **Grade 10** **1 Carnegie Unit**
 This course will follow the goals and objectives of Biology/Lab. Biology, at a pace designed to meet the needs of its students. Evaluation will be on an individual basis. Acceptance into the course is through placement by Department Chair and administrative recommendation only.
- 530 HONORS CHEMISTRY/LAB:** **Grades 11,12** **1 Carnegie Unit**
 The course is an in-depth approach to topics normally covered in high school chemistry. The course is presented in a straightforward manner using the laboratory to verify and expand concepts. Report writing, proper laboratory techniques, computer skills, and mathematics will be emphasized.
PREREQUISITE: Honors Biology or recommendation from previous Biology teacher. Current enrollment in/or completion of Honors Algebra II (preferred) or Algebra II
- 531 CHEMISTRY/LAB:** **Grades 11,12** **1 Carnegie Unit**
 This course serves to meet the admission requirements of most four year colleges. Some of the topics addressed are matter and its classification, atomic theory, the periodic table, chemical bonding, chemical reactivity, stoichiometry, behavior of gases, and acids and bases. Problem solving involving the factor label method and the application of algebra is frequently involved in this course. Numerous laboratory experiences requiring written lab reports are performed to reinforce the concepts presented in class.
PREREQUISITE: Completion of Honors Biology or Biology/Lab and current enrollment in/or completion of Algebra II
- 532 APPLIED CHEMISTRY:** **Grades 11,12** **.5 Carnegie Unit**
 This course is an exploration into the study of matter and its interactions. Topics include characteristics of matter, how to use the periodic table, nuclear energy, the language of chemistry, chemical formulas, chemical reactions and measurements. This course is designed for juniors or seniors who have already taken Earth Science and Biology.
PREREQUISITE: Current enrollment in/or completion of Algebra I
- 538 APPLIED CHEMISTRY (Remedial):** **Grades 11,12** **.5 Carnegie Unit**
 This course is an exploration into the study of matter and its interactions. Topics include characteristics of matter, the periodic table, language of chemistry, chemical reactions, chemical bonding, solutions, and acids. This course is designed for juniors or seniors who have already taken Earth Science and Biology. Acceptance into the course is through placement by Department Chair and administrative recommendation only.
PREREQUISITE: Current enrollment in/or completion of Algebra I
- 533 APPLIED PHYSICS:** **Grades 11,12** **.5 Carnegie Unit**
 This course is an exploration into the study of energy and its interaction. Topics include: motion, Newton's Laws, simple machines, the 2 kinds of energy, and the 5 forms of energy. This course is designed for juniors and seniors who have previously taken Earth Science and Biology.
PREREQUISITE: Current enrollment in/or completion of Algebra I
- 539 APPLIED PHYSICS (Remedial):** **Grades 11,12** **.5 Carnegie Unit**
 A laboratory and activity based semester long exploration into the study of energy and its interactions. Topics include: motion, Newton's Laws, simple machines, the 2 kinds of energy, and the 5 forms of energy. This course is designed for juniors and seniors who have previously taken Earth Science and Biology. Acceptance into the course is through placement by Department Chair and administrative recommendation only.
PREREQUISITE: Current enrollment in/or completion of Algebra I

535 MARINE SCIENCE/ECOLOGY:**Grades 11,12****.5 Carnegie Unit**

Marine science emphasizes ecological concepts as they pertain to wetlands (e.g. marshes, bogs, swamps) and the oceans. In addition, the ocean realm involves the study of physical, chemical, and biological concepts (e.g. waves, currents, ocean bottom, sea water, marine animals and plants). Laboratory activities will be an important part of this course. Students choosing this elective should be prepared and willing to participate in the dissection of various marine organisms. **NOTE:** Students who have satisfactorily passed biology and chemistry will be given preference if the class size needs to be limited.

PREREQUISITE: Successful completion of Biology/Lab**536 ENVIRONMENTAL ISSUES:****Grades 11,12****.5 Carnegie Unit**

This semester course provides students with the science background needed to analyze many of the issues concerning our environment. The development of thinking and decision-making skills will be emphasized with the goal being to improve student awareness of environmental problems we now face and will be facing in the future. Topics may include: bioremediation, genetically modified foods, antibiotic resistance, endangered species (both plants and animals), renewable resources (energy), ecological balance, deforestation, acid rain, and global warming. Students will be expected to complete a semester-long current event project.

537 BIOTECHNOLOGY:**Grades 11,12****.5 Carnegie Unit**

A semester course designed to explore current topics in the field of biotechnology. Topics include, but are not limited to: genetically modified foods, cloning, forensics, medical diagnostics, genetic engineering, and gene therapy. Students will review the principles of genetics and the structure and function of DNA. This will be a project-oriented course and students will be expected to present a research project on a current biological topic.

PREREQUISITE: Successful completion of Honors Biology or Biology/Lab or teacher approval**540 HONORS PHYSICS/LAB:****Grades 11,12****1 Carnegie Unit**

A full year laboratory course designed to prepare students who will take physics in college. Topics will include motion, forces, energy, waves, electricity, magnetism and heat. This class has extensive homework with several group projects to be completed throughout the year. Good study skills and a strong geometry and algebra II background are important for a student's success in this class.

PREREQUISITE: Successful completion of Honors Chemistry and Honors Algebra II**541 PHYSICS/LAB:****Grades 11,12****1 Carnegie Unit**

A full year laboratory course designed to provide college bound students with a fundamental understanding of the laws of nature. Topics will include motion, forces, energy, waves, electricity, magnetism and heat. This class has homework on a regular basis with several group projects being completed throughout the year. While the emphasis of this class is the underlying concepts, a solid understanding of algebra and geometry is required for success.

PREREQUISITE: Successful completion of Chemistry/Lab and Algebra II or recommendation from Geometry teacher**543 ANATOMY & PHYSIOLOGY:****Grade 12****1 Carnegie Unit**

This senior level course is the study of the structure, function, and maintenance of the human body. This course requires active learning from laboratory activities, a variety of dissections, and individual study. Through this, the student will gain a familiarity and appreciation of the intricacy of human anatomy and physiology. Students choosing this elective should be prepared and willing to participate in dissections for comparative applications.

PREREQUISITE: Successful completion of Honors Biology or Biology/Lab**550 ADVANCED PLACEMENT CHEMISTRY:*****Grade 12****1 Carnegie Unit**

The AP Chemistry course is intended to be the equivalent of a first-year college chemistry course. The students will utilize a college-level textbook. Many of the topics covered in Honors Chemistry will be repeated, but in greater depth. Several new topics will be included to complete the requirements. This course will be especially valuable to those students whose possible career choices may be related to physical science-chemistry, engineering, physics or biological and health related fields. Numerous related laboratory experiences related to topics discussed in class are done.

PREREQUISITE: Successful completion of Honors Chemistry, Honors Physics or recommendation from previous Chemistry teacher

551 ADVANCED PLACEMENT PHYSICS:***Grade 12****1 Carnegie Unit**

The AP Physics course is the equivalent to a first-year college physics course. With successful performance on the AP exam in May, students may be eligible for college credit. This class provides an in-depth mathematical and hands-on study into classical mechanics. This course will be particularly valuable to anyone who may be required to take physics in college. Physical science, biological science, engineering, architectural, pre-med, nursing, and physical therapy majors will find this course particularly helpful. A strong foundation of Pre-Calculus skills is imperative for success in this class.

PREREQUISITE: Successful completion of Honors Chemistry and Pre-Calculus or recommendation from previous Honors Algebra II teacher

552 ADVANCED PLACEMENT BIOLOGY:***Grade 12****1 Carnegie Unit**

The AP Biology course is the equivalent of a first-year college biology course. Students will utilize a college-level textbook and with successful performance on the AP exam in May, may be eligible for college credit. Many of the topics covered in Honors Biology will be revisited, but studied with greater depth and rigor. Students will be required to do summer work, reading and laboratory exercise. This course will be especially valuable to those students whose possible career choices may be related to chemistry, biology, and health related fields. During this course there are 12 laboratory activities that will be required by the College Board to help build the curriculum and understanding.

PREREQUISITE: Successful completion of Honors Biology, Honors Chemistry or recommendation from previous Biology or Chemistry teacher

** Students must declare their intent to participate in the AP Exam by registering and paying for the exam (estimated cost around \$86) following the end of the first quarter. In the event a student elects not to take the exam, the AP designation will not be reflected on the student's transcript and honors weight will be given in their G.P.A..*

CAREER AND TECHNICAL EDUCATION/VOCATIONAL

W.R.V.C. courses are sequential and are up to three years in length. A student must satisfactorily complete the first year before continuing into the second year. An 85 average or better and a teacher's recommendation must be obtained before entering Tech III. Interested students should visit W.R.V.C. for firsthand observation of course activities.

AUTOMOTIVE TECHNOLOGY:

Grades 10,11,12

Automotive Technology is a challenging and exciting program that explores the intricacies of repairing and diagnosing complex modern automobiles. Our program is certified by the National Automotive Technical Educational Foundation (NATEF) and Automotive Youth Education Systems (AYES). In the first year, students will spend one day on classroom theory and the next day with shop-based skills. Students will need to keep a notebook for each quarter and write a work order for each shop day. The first quarter is focused on safety and how to operate shop equipment. Second and third quarters cover brake systems and steering and suspension systems. The last quarter covers engine performance, which includes ignition, fuel, and emission systems. In the second year, students begin to do more hands-on work with includes diagnostic skills. Students will create and present hands-on projects to classmates about how and why they fixed a particular system. Students will keep a portfolio to document each day's work in the shop. We encourage students to prepare for and take national and state sponsored exam. The third year is a program for students who excel in the second year. This year further focuses a student in the eight areas, with the primary focus on diagnosing automotive systems.

- 705 Automotive Technology I - 2 Carnegie Units
- 706 Automotive Technology II - 2.5 Carnegie Units
- 707 Automotive Technology III - 2.5 Carnegie Units

BUILDING TRADES:

Participation in this program provides a first-hand experience in the construction of a house. Site planning, rough framing, roofing, exterior finish, interior finish and cabinetry, to name a few, of the topics covered. Safeties, hand tools, proper operation of portable and stationary power tools are also addressed. Students will learn about the latest technology in building materials and processes used in the residential construction industry.

- 711 Building Trades I - 2 Carnegie Units
- 712 Building Trades II - 2.5 Carnegie Units
- 713 Building Trades III - 2.5 Carnegie Units

BUSINESS DEPARTMENT:

Grades 10,11,12

The organization of the program has been designed so students who cannot fit the vocational program into their schedules can take some of the components of the program.

YEAR	P	Semester 1	Semester 2
TECH I	2	Microsoft Word and Access	Microsoft Excel and PPT
	3	Human Resource Management	Business Operations Management
TECH II	5	Accounting/Quickbooks	
	6	Adv Computer App	MCAS Training & Certification

610 CAREER PLANNING:

Grades 9,10

.5 Carnegie Unit

Students use their interests and values to find related careers. They develop a career pathway using the computer program *Choices*. Through individual research, students will gain an understanding of the educational requirements and training necessary to pursue specific careers and develop an individual learning plan for the remainder of high school. When finished with this course, students should know more about themselves and how they can succeed in the world of work.

611 MICROSOFT OFFICE WORD & ACCESS:

Grades 10,11,12

.5 Carnegie Unit

Students will learn the Microsoft Word and Microsoft Access components of Microsoft Office 2007 during the first semester. They will learn skills in Microsoft Word that they can apply right away with assignments in other classes. Areas covered include the use of shortcuts, organizing content using margins, tabs, styles, macros, format painter; formatting newsletters, memos, letters, tables, agendas, outlines; and completing mail merges. Students will learn what Microsoft Access is used for and basic skills to design structures for databases and create reports. For students planning to major in business in college, this class will greatly benefit them.

612 MICROSOFT OFFICE EXCEL & POWERPOINT: Grades 10,11,12 .5 Carnegie Unit

Students will learn the Excel and PPT components of the Microsoft Office 2007 suite during the second semester. They will learn how to use Excel in their personal life, in their science and math classes, and for business applications. Areas covered include entering text and data, entering formulas, using conditional statement and formatting, filtering data, formatting data, graphing and much more. Students may think they can “wing” it without formal instruction but will quickly realize how much better off they are from formal instruction. They will become much more proficient users of Microsoft Excel and PPT. Colleges and employers assume students and employees know how to use these software applications.

613 ACCOUNTING/QUICKBOOKS: Grades 10,11,12 1 Carnegie Unit

Accounting will introduce the students to the accounting cycle of a sole proprietorship and partnership. Students will learn how to analyze business transactions, journalize, post, prepare a six-column worksheet, income statement and balance sheet, prepare a payroll register, complete the necessary entries for payroll expenses, and work with special journals. Preparation and interpretation of accounting journals and financial statements will be included. Students will also learn the software Quickbooks, a bookkeeping software solution for small businesses.

614 HUMAN RESOURCE MANAGEMENT: Grades 10,11,12 .5 Carnegie Unit

This management course is about how to manage your “resources”—both internal and external. This semester course will focus on the management functions related to people—from communications, hiring, interviewing, and setting expectations and goals to implementing and enforcing policies, rewards and recognition, negotiating, and personnel development. Students will learn about the role and work of managers, different leadership styles, the types of power, and other topics related to personnel. Whether you plan to operate a business of your own, move into a top management position in a large company, or work as a valuable and valued employee for a company, you will benefit from this class.

615 BUSINESS OPERATIONS MANAGEMENT: Grades 10,11,12 .5 Carnegie Unit

If you think you might like to start your own business or be in management some day, this course will provide you with an understanding of the importance of a business plan, business operations, financial management, inventory control, scheduling, strategic planning, and how to make financial decisions. Students will learn how to use the computer to accomplish some of these management roles.

616 ADVANCED COMPUTER APPLICATIONS: Grades 11,12 .5 Carnegie Unit

In addition to learning more advanced skills in Microsoft Office, students will participate in a self-paced simulation that encompasses all of the Microsoft Office software applications in a fun, real-world setting. Students will take on the role of a Microsoft Office Marketing Specialist to start their own professional sports franchise team or business. From creating a business or team name and logo to designing letterhead, business cards, VIP passes, press releases, brochures, magazine advertisements, schedules, etc., students will learn how useful their computer skills are and can be for the real world.

617 MICROSOFT CERTIFICATION: Grades 11,12 .5 Carnegie Unit

This class will provide students with training, practice exams, and the opportunity to take the Microsoft Certification exams in Word, Excel, Access, and PowerPoint.

COMMERCIAL DRIVER’S LICENSE (Truck Driving): GRADES 10,11,12

Students who complete this program will be eligible to earn a class B driver’s license at the end of year one and a Class A driver’s license at the end of year two. This program will concentrate on state devised curriculum for Commercial Truck driving examination completion. In addition to classroom instructions, students will complete the required range and road time necessary for licensure. General Truck components and general maintenance will be covered. Students must hold a valid Maine driver’s license and have a clean driving record. A drug test will be required upon acceptance to the program.

723 Commercial Driver’s License I - 2 Carnegie Units

724 Commercial Driver’s License II - 2.5 Carnegie Units

COMPUTER REPAIR AND NETWORKING:

The organization of the program has been designed so students who cannot fit the vocational program into their schedules can take some of the components of the program.

YEAR	P	Semester 1	Semester 2
TECH I	2	Intro to Computer Hardware	Robotics
	3	Cisco Academy I	Cisco Academy II
TECH II	5	Computer Maintenance and Repair I	Computer Maintenance and Repair II
	6	Open Source Operating Systems	Networking and Computer Security

630 INTRO TO COMPUTER HARDWARE: Grades 10,11,12 .5 Carnegie Unit

This course is an introduction to Personal Computer Hardware. Student activities will include disassembly, reassembly, and configuration of X86 based microcomputer systems. Topics investigated during this course: microcomputer hardware components including CPU's, hard drives, memory, CPU sockets, video cards, sound cards, network interface cards, monitors and printers. **There are no prerequisites.** Lecture/Lab

631 ROBOTICS: Grades 10,11,12 .5 Carnegie Unit

Students will integrate science, technology, engineering and mathematics to design, build and program Lego NXT 32-bit CPU powered Robots. Programming is accomplished using icons and is drag and drop. No programming experience required. Course follows the Engineering 1 curriculum developed by the Carnegie Mellon University Robotics Academy for secondary schools. **There are no prerequisites.**

632 CISCO ACADEMY I: Grades 10,11,12 .5 Carnegie Unit

The basic course introduces networking, network terminology and networking standards. Instruction and training are provided in the proper care, maintenance, and use of networking tools and equipment. Students will build simple peer to peer and client/server networks. Topics include how to make networking cables, installing networking devices and building a network server. There are no prerequisites. Lecture/Lab

633 CISCO ACADEMY II: Grades 10,11,12 .5 Carnegie Unit

Networking for Home and Small Business. Using Cisco networking devices (routers, switches) students will learn advanced skills in designing, managing and securing both wired and wireless computer networks. *Eligible students will be encouraged to take the Cisco Academy certification exam in Networking for Home and Small Business.*

PREREQUISITE: "C" or better in Cisco Academy I

634 COMPUTER MAINTENANCE AND REPAIR I: Grades 10,11,12 .5 Carnegie Unit

Focus is on computer repair and preventative maintenance of personal computer systems. Current Microsoft Operating System software and third party utilities (Malware, Spybot, AVG Antivirus, etc) will be used for troubleshooting and diagnosing common computer system problems. Course is designed to prepare students for the CompTIA A+ Certification exams. Lecture/Lab

635 COMPUTER MAINTENANCE AND REPAIR II: Grades 10,11,12 .5 Carnegie Unit

Advanced topics in Computer Repair and Maintenance including network troubleshooting and printer repair. *Eligible students will be encouraged to take the CompTIA A+ Certification exam in Computer Repair in June.*

Prerequisite: "C" or better in Computer Maintenance and Repair I

636 OPEN SOURCE OPERATING SYSTEMS & APPLICATIONS: Grades 10,11,12 .5 Carnegie Unit

Just say no to Microsoft. This course will provide the student with a chance to explore an Open Source, Linux based operating system and applications. The student will develop skills in using the command line for maintenance of users, files, directories and permissions. The student will learn to create print servers, troubleshoot system problems, set up network connectivity and seamlessly integrate an Open Source server with Windows clients. This course will provide the student with online reference materials and hands-on exercises based on real work examples. There are no prerequisites. Lecture/Lab

637 NETWORKING AND COMPUTER SECURITY: Grades 10,11,12**.5 Carnegie Unit**

Learn how to provide a safe internet browsing environment for your home computer or network. This course is designed to provide students with the skills and knowledge necessary to secure computers and computer networks from unauthorized access and malicious software attacks. Students will learn how to secure Linksys Wireless Routers, the basics of firewall protection and proactive use of other software and hardware security systems.

CULINARY ARTS:**Grades 10,11,12**

This program includes a number of diversified, flexible food modules: short order cooking, preparing and serving meals, quantity cooking, bakeshop, family meals, cook's helper sequence, waiting on tables, catering for community organizations, cake decorating, work experience, and orientation to the food industry. These modules are designed to meet individual needs for skill development and preparation for the world of work. Interest and ability in food and food skills are determining factors in the progress of the student. First year students spend the entire year in the classroom/lab where they participate in a food service training program that teaches them skill development and prepares them to assume responsibilities for varied food related tasks. In the second year, students continue the curriculum sequence of the first year but also participate in advanced cooking of such items as meats, gravies, sauces, seafood, vegetables, etc. Tech II prepares lunch items to be served in the Culinary Learning Center and Restaurant. Some evening functions are held in order for students to gain experience in waiter and waitress training.

- 734 Culinary Arts I - 2 Carnegie Units
- 735 Culinary Arts II - 2.5 Carnegie Units
- 736 Culinary Arts III - 2.5 Carnegie Units

DRAFTING:

The organization of the program has been designed so students who cannot fit the vocational program into their schedules can take some of the components of the program.

YEAR	P	Semester 1	Semester 2
TECH I	2	Mechanical Design 1	Architectural Design 1
	3	Introduction to Engineering	Introduction to Architectural
TECH II	5	CAD 2 – Mechanical or Architectural	3D Modeling – Mechanical or Architectural
	6		

650 MECHANICAL DESIGN 1:**Grades 10,11,12****.5 Carnegie Unit**

This course will introduce students to the mechanical engineering field utilizing Computer Aided Design (CAD). This course will allow the student to design, draw and either build or create the item using a 3D plotter. The course will cover the areas of sketching, basic design, manufacturing, how to draw using CAD and creating different kinds of 2D drawings. **There are no prerequisites.**

651 ARCHITECTURAL DESIGN 1:**Grades 10,11,12****.5 Carnegie Unit**

This class will introduce students to architectural field utilizing Computer Aided Design (CAD). Students will learn about architectural design, framing technique, building codes and construction practices. Students will create 2D and 3D drawing of a residential house. The class will draw a complete set of plans for a one story home using CAD. **There are no prerequisites.**

652 INTRODUCTION TO ENGINEERING:**Grades 10,11,12****.5 Carnegie Unit**

Using Computer Aided Design (CAD). If you have any interest in becoming an engineer of any type, this course is for you. This introductory course will focus learning the basic of 2D Computer Aided Design. The activities will include learning to draw using CAD, creating various types of drawings common to different industries, applying dimensioning correctly to a drawing and printing of drawings at different scales. **There are no prerequisites.**

653 INTRODUCTION TO ARCHITECTURAL:**Grades 10,11,12****.5 Carnegie Unit**

Using Computer Aided Design (CAD). If you have any interest in becoming an architect, this course is for you. This introductory course will focus learning the basic of drawing with an architectural Computer Aided Design program. The activities will include learning to draw using CAD, creating various types of architectural drawings common to different trades, applying dimensions to a drawing and printing drawings at different scales. **There are no prerequisites.**

654 CAD 2-MECHANICAL OR ARCHITECTURAL : Grades 11,12 1 Carnegie Unit

Students will choose between mechanical or architectural design. In the mechanical design advanced class, students will develop products of their own design and produce a set of drawings that could be used for manufacturing of the item. Students will learn about manufacturing process, industrial standards and design practice that apply to their product. Advance CAD skills will be covered.

In the architectural design advanced class, students will design residential and commercial buildings. They will start out by first designing a two-story house. Next, they will create a design for an office building. Students will learn advance CAD skills that will help them better develop their idea in 2D and 3D models. Students that take the architectural program will also work on designing the house the Building Trades program constructs every two years.

PREREQUISITE: Mechanical Design 1 or Architectural Design 1

655 3D MODELING-MECHANICAL OR ARCHITECTURAL: Grades 11,12 1 Carnegie Unit

Students will choose between mechanical or architectural program. They will either use Inventor (a 3D mechanical modeling program) or Revit (an architectural 3D modeling program). With either of the programs, students will use them to build 3D model or projects. They will learn to manipulate the object, build assemblies of pieces, make changes to their parts and turn their 3D models into 2D drawing.

PREREQUISITE: Mechanical Design 1 or Architectural Design 1

EARLY CHILDHOOD OCCUPATIONS: Grades 10,11,12

The Early Childhood Occupations Education Program is a program designed for students preparing for careers involving children. Students should love children, have good communication skills, be responsible, be dependable, work well independently, and read to grade level. Tech I students will participate in nursery school two days per week working with 3 ½ to 5 year olds. While working in the nursery school, students will work within teams, planning and implementing activities according to a curriculum theme. Tech II students will participate in nursery school three days per week in one semester working with 3 to 3 ½ year olds. They will also intern for one semester at a community based program or class appropriate to career goal.

- 728 Early Childhood Occupations I - 2 Carnegie Units
- 729 Early Childhood Occupations II - 2.5 Carnegie Units
- 730 Early Childhood Occupations III - 2.5 Carnegie Units

ELECTRICITY: Grades 10,11,12

This program is designed to provide entry-level skills into the electrical field. Students learn to install wiring systems from blueprints and according to the National Electrical Code. Participants will learn to wire residential and commercial projects. Students work on safety at all times in the course. Students will wire splices, low voltage systems, non-metallic and metallic cables and wiring in conduits. Ohms Law calculations are used frequently. A vast amount of time is spent practicing switching circuits. Students are exposed to real world situations every day. Moral business practices and finances are discussed frequently.

- 717 Electricity I - 2 Carnegie Units
- 718 Electricity II - 2.5 Carnegie Units
- 719 Electricity III - 2.5 Carnegie Units

HEAVY EQUIPMENT OPERATION: Grades 10,11,12

This program will include basic construction safety, introduction to site work and roadwork layout, identification of heavy equipment and use, and proper operation and preventative maintenance. Operation skill development will be performed on excavation simulators. Additionally, students will learn basic skid excavator, dozer, front end loader steer operation, and can receive a certificate in forklift operation and the 10-hour OSHA safety certificate. The student text book will be from the National Center for Construction Education and Research. Class and lab work will be supplemented with field trips to job sites, local mining (gravel) pits and dealerships.

- 750 Heavy Equipment Operation I - 2 Carnegie Units
- 741 Heavy Equipment Operation II - 2.5 Carnegie Units

MARKETING EDUCATION:**Grades 10,11,12**

This program is designed to prepare students for continuing education and entry-level employment in marketing and retail-related fields. Emphasis is on product or service retailing, entrepreneurship and management. The first year consists of a formal classroom component meeting daily with related lab experiences. Students will learn the business functions of operating a successful school-based enterprise. They will develop and maintain positive customer relations through the daily operation of the school store. Students will introduced to target market and marketing research, merchandising, buying and pricing, receiving, inventory, cash handling, accounting basics, point of sale systems, sales promotion and advertising, visual merchandising, loss prevention, and selling. The second year consists of a formal classroom component meeting daily with related lab experiences. Students have the option of securing employment in the field of marketing while studying economics, advertising and distribution in the classroom. Students may be given early release for their on-the-job training. Students participating in the on-the-job training option will be required to work a minimum of 15 hours per week in a marketing related field. Second year students develop management skills through school store activities, planning production of products for resale, and through planning and implementation of yearly projects.

- 740 Marketing Education I - 2 Carnegie Units
- 741 Marketing Education II - 2.5 Carnegie Units
- 742 Marketing Education III - 2.5 Carnegie Units

MEDICAL OCCUPATIONS:**Grades 10,11,12**

The Medical Occupations is a program that introduces students to the medical field. Students are able to investigate and learn about different professions within the healthcare system. Students spend a great deal of time learning medical terminology as well as anatomy and physiology of the human body and basic health care skills. Students in the first year program will have the option to obtain their Personal Support Specialist Certificate (PSS) at the end of the program. This allows students to work in the assisted living setting and home setting assisting clients with basic health care needs. Students receive CPR certification and have the opportunity to visit the clinical setting and work with patients. Second year students have the opportunity to obtain their Certified Nurses Assistant (CNA) training. Students that opt to take part in the CNA program must perform 60 hours in the clinical setting and pass a state exam to be put on the State of Maine CNA Registry. Students continue to explore careers in health care and focus at more in-depth knowledge of Anatomy and Physiology of the human body.

- 720 Medical Occupations I - 2 Carnegie Units
- 721 Medical Occupations II – 2.5 Carnegie Units
- 721 Medical Occupations II - 2.5 Carnegie Units

PUBLIC SAFETY:**Grades 10,11,12**

Tech I students are introduced to the philosophy of a para-military career choice and learn the importance of staying fit, both mentally and physically. Students will study subjects such as use of force, search and seizure as they apply to our Constitution. The culminating experience for Tech I students is to receive an introduction to police weaponry, During this module, students receive training from State of Maine certified fire-arms instructors in the identification, uses, and deployment of police weapons. Tech II students explore opportunities available in Fire Fighting and Emergency Medicine. Students complete the necessary curriculum to test for the Fire Fighter I certification. Students will have to climb a 50'-105' ladder wearing their complete protective gear. Tech II students study for the EMT basic license. Successful completion of this semester will prepare students to take the State licensing test to be an Emergency Medical Technician.

- 744 Public Safety I – 2 Carnegie Units
- 745 Public Safety II – 2.5 Carnegie Units
- 746 Public Safety III – 2.5 Carnegie Units

WEB PAGE DESIGN:

The organization of the program has been designed so students who cannot fit the vocational program into their schedules can take some of the components of the program.

YEAR	P	Semester 1	Semester 2
TECH I	2	Visual Design	Multimedia Design: Flash 1
	3	Web Design & Development 1	Web Design & Development 2
TECH II	5	Digital Media 1	Digital Media 2
	6	Multimedia Design: Advanced Flash	Web Scripting and Programming

640 VISUAL DESIGN: Grades 10,11,12 .5 Carnegie Unit

Develop skills in print, web and graphic design. Students will have hands-on learning in the principles of design, typography, color, and layout. Students will demonstrate skills in image generation (scanning, photography), image preparation. The class is a project-based instruction that will give you the skills needed for planning and creating effective and interesting publications for business and personal use.

Prerequisite: Basic art skills are a must. Creative and motivated learner

641 WEB DESIGN AND DEVELOPMENT 1: Grades 10,11,12 .5 Carnegie Unit

Have you ever looked at a website and said, "How did they do that?" Then this is the class for you. This is the introductory class covering the building of websites. Students will have hands-on learning using Adobe Dreamweaver. We will be covering topics basic markup text, Internet history, creating tables, modifying color sets, and designing layouts for working sites. Students will be creating their own sites. This class is aligned for the Adobe Certified Associate exam in Web communications.

642 WEB DESIGN AND DEVELOPMENT 2: Grades 10,11,12 .5 Carnegie Unit

This advanced class in web development will cover CSS layout and Design, Dynamic layouts, Style Sheet placement, and design interaction in a web design. Student projects will utilize the latest techniques in HTML 5 and CSS3 development tools. The course will cover blogs and forums. This is the second part of the web design curriculum. It is aligned to the Adobe Certified Associate exam in Web communications.

Prerequisite: Web Design and Development 1

643 DIGITAL MEDIA 1: Grades 10,11,12 .5 Carnegie Unit

Introductory course will focus on the creation, compositing and manipulation of digital images using State-of-the-Art programs: Adobe Photoshop and Illustrator. Topics include digital color theory, scanning techniques, masking, and image optimization for web, print and video media. This class will be aligned for students to take Adobe Certified Associate exam in Visual communications.

Prerequisite: Basic art skills are a must. Creative and motivated learner

644 DIGITAL MEDIA 2: Grades 10,11,12 .5 Carnegie Unit

An advanced class in digital imaging where students will learn techniques used in digital publishing, web development, and 3-D production. Students will gain essential knowledge of industry standard imaging tools in a project-based environment. This class will be aligned for students to take Adobe Certified Associate exam in Visual communications.

Prerequisite: Digital Media 1

645 MULTIMEDIA DESIGN: FLASH 1: Grades 10,11,12 .5 Carnegie Unit

Adobe Flash is a multimedia development program that develops powerful and interactive graphics and web-based content. Flash can be used to develop content of various levels, from basic animated drawings to interactive websites. This class will be aligned for students to take Adobe Certified Associate exam in Rich Media communications.

Prerequisite: Basic art skills are a must. Creative and motivated learner

646 MULTIMEDIA DESIGN: ADVANCED FLASH: Grades 11,12 .5 Carnegie Unit

Students will take the skills from Adobe Flash and learn Action Script programming that is a part of the Flash Program. Students will set up projects, acquire materials and devise a plan to complete their multimedia project. They will create AIR applications, websites and generate animation using Action Script.

Prerequisite: Multimedia Design – Flash 1

647 WEB SCRIPTING AND PROGRAMMING: Grades 10,11,12 .5 Carnegie Unit

This course is for web programming, starting with Alice and Scratch programming environments. Use programming to build dynamic, interactive web applications that give user responses and feedback. Learning the basics of variables, functions, arrays, and loops, using Javascript, Ajax and PHP programming.

FINE ARTS (Also includes all courses in Art, Music and Drama)

114 COMMUNICATIONS: **Grades 9,10** **1 Carnegie Unit**
The areas studied will include public speaking, debate, and the mass media, including comics, animation, film, radio, television, advertising, and the news.

137 PUBLIC SPEAKING: **Grades 11,12** **.5 Carnegie Unit**
This semester course stresses good presentation techniques, including the use of technology in speeches and demonstrations.

138 DISCUSSION & DEBATE: **Grades 11,12** **.5 Carnegie Unit**
This semester course stresses debate techniques, discussion of current events, the art of persuasion, and use of the Roberts Rules of Procedure.

DRAMA

960 INTRODUCTION TO THEATER: **Grades 9,10,11,12** **.5 Carnegie Unit**
This semester course will give the student a broad overview of theatre as an art form. Students will learn to appreciate the dramatic arts while covering the following areas: basic acting, theatre terminology, jobs within the theatre, theatre history, and theatre appreciation. Students will read and watch plays and participate in class discussion. Students will also take part in various basic acting assignments.

961 THEATER PRODUCTION I: **Grades 9,10,11,12** **.5 Carnegie Unit**
will consist of studying the acting and the backstage aspects of producing a play. Some of the areas to be explored are set construction, set painting, acting, costuming, lighting, mime, monologues, and some scene preparation.
PREREQUISITE: Passed Introduction to Theater

962 THEATER PRODUCTION II,III,IV: **Grades 10,11,12** **1 Carnegie Unit**
This course is limited to students who already have taken 1 year of theater or have special permission from the instructor. This class will produce scenes and short plays for public performance.

MUSIC DEPARTMENT

940 CONCERT BAND: **Grades 9,10,11,12** **1 Carnegie Unit**
Concert Band is an instrumental ensemble for students wishing to develop their instrumental skills and fulfill their enjoyment of music through performance. This ensemble performs a variety of musical styles that will challenge the ensemble members and broaden their knowledge of instrumental music. The band performs at several school concerts as well as other school and civic events. Some after school rehearsals and performances are required.

941 MUSIC APPRECIATION: **Grades 9,10,11,12** **.5 Carnegie Unit**
This course is designed for those students interested in the historical and cultural evolution of music. Students investigate various eras of music including: Music of the Middle Ages, Baroque Era, Classical Era, 19th Century, 20th Century, Jazz, Broadway, Rock 'n Roll and beyond. Students also learn about the basic elements of music through piano performances.

942 MUSIC THEORY: **Grades 9,10,11,12** **1 Carnegie Unit**
This course is designed for the student interested in learning basic compositional techniques in music. Students will investigate the mechanics of music (notation, scales, modes, chords, melody, harmony, arranging and composition.) Some prior musical experience is required (piano, voice, instrumental.).

943 WIND ENSEMBLE: **Grades 9,10,11,12** **1 Carnegie Unit**
Wind Ensemble is selected by audition. The auditions will be conducted for all band students prior to the spring scheduling process and the students' chosen are notified before course selection takes place. Wind Ensemble is designed to challenge students with advanced musical abilities and interests. Students are exposed to advanced literature and expected to spend the additional time necessary to master this literature. The ensemble performs at several school concerts as well as other school and civic events. Some after school rehearsals and performances are required.

944 CONCERT CHORALE: Grades 9,10,11,12 1 Carnegie Unit

The Concert Chorale educates students in music from the Renaissance, Baroque, Classical, Romantic, Jazz, and Contemporary periods. Students develop skills in reading music, sight-singing, ear training, and understanding musical terminology. The ensemble performs at several school concerts as well as other school and civic events. Auditions held during the first weeks of class will determine placement (voice part) in the chorus. After school rehearsals may be needed, and all performances are required.

945 CHAMBER SINGERS: Grades 9,10,11,12 1 Carnegie Unit

The Chamber Singers is a small chorus selected by audition. The auditions are conducted for all interested students prior to the spring scheduling process and the students chosen are notified before course selection takes place. Chamber Singers is designed to challenge students with advanced musical abilities and interests. Students are exposed to advanced literature and expected to spend the additional time necessary to master this literature along with learning the concept chorus repertoire. The ensemble performs at several school concerts both on their own and with the Concert Chorale, and other school and civic events. Students are also required to audition for their district festival as members of this upper level class. After school rehearsals may be needed, and all performances are required.

946 MUSIC TECHNOLOGY: Grades 9,10,11,12 .5 Carnegie Unit

Students will create, perform, and produce music using a specially adapted version of the music software program *Reason*, as well as *Garage Band*. Students will explore the elements of music while learning software and hardware mixing boards, tone generators, effect processors, samplers, and sequencers. Students will demonstrate their knowledge and understanding of class materials through weekly assigned projects and a cumulative portfolio of original works. Students will also explore the basics of running live sound reinforcement using a PA system and elements of the Protools software used in digital studio recording.

947 PIANO LAB: Grades 9,10,11,12 .5 Carnegie Unit

This course is designed to teach the fundamentals of playing electronic keyboards, the piano, scales, chords, and musical notation. Students will demonstrate their knowledge of the keyboard through daily playing and performance of lesson for the instructor and sometimes for the class. The course is intended for, but not limited to, students with no piano skills.

948 MELODY AND IMPROVISATION: Grades 9,10,11,12 1 Carnegie Unit

Students study the theory and techniques necessary for improvising various styles of music (i.e. jazz, rock, etc.) All students will develop their capacity to intellectualize and perform on their instruments. Concepts and skills explored include: major, minor, blues, be-bop and pentatonic scales, the sixty-chord system, seventh chord arpeggios, and tune analysis. Students demonstrate their learning through instrumental performance.

PREREQUISITE: Students must play an instrument and be approved by the instructor

ART DEPARTMENT

Honors level work is offered to every student that chooses to participate in it. Materials are handed out to all students by their teacher during the first full week of school. A decision must be made and the teacher notified during the first two full weeks of the first quarter.

910 FOUNDATIONS OF ART ONE:

Grades 9,10,11,12

1 Carnegie Unit

This class offers the basic content knowledge needed to be successful in the study of future visual arts courses. The focus of this course is the elements of art and principles of design. Both two and three-dimensional art forms will be explored in a variety of materials. This course provides coverage of the visual art standards in the Maine Learning Results. Students will practice basic critical thinking and writing skills to assess works of art through the study of art history and appreciation.

920 DRAWING & PAINTING:

Grades 10,11,12

.5 Carnegie Unit

Semester 1 - Students are required to have completed Art I with a minimum grade of "C" and passed in all long-term assignments to take Drawing and Painting. Students will have the opportunity to explore various drawing and painting medias in more depth than in Art I. The course is designed to improve and strengthen the students understanding of working in the following media: pencil, conte', charcoal, pastels, colored pencils, watercolor and mixed media. Students will be exposed to portfolio preparation and evaluation throughout the course. A sketchbook is a required part of the course.

PREREQUISITE: Successful completion of Foundations of Art One

921 FINE FUNCTIONAL ARTS/CRAFTS:

Grades 10,11,12

.5 Carnegie Unit

Semester 2 – Students are introduced to the rich cultural background of functional arts and crafts. Students are required to do research before starting production in their craft area. Students learn basic technical processes involved in creating ceramics, batik, tie-dye, basketry, mosaics, paper mache, simple jewelry, and papermaking.

PREREQUISITE: Successful completion of Drawing & Painting

932 STUDIO ART/A: ('11-'12)

Grades 11, 12

1 Carnegie Unit

Semester 1 - The course will focus on drawing and painting, but special projects will be integrated (if possible) with visiting artists. Students will work in a variety of drawing and painting media. A focus on the use of fine pastels, acrylic painting and mixed media projects will also be explored. Students pursuing art-related careers will work on portfolio preparation and work to strengthen individual areas of weakness. College presentations, visits and career options will be explored. Students will work on independent study projects, group projects, and/or class assignments.

Semester 2 – This semester students will incorporate their drawing and painting skills into various printmaking techniques including but not limited to...lino cuts, wood engravings, intaglio prints and found object printmaking. Various movements in art and artists from many cultures will be incorporated in lessons related to class projects. A sketchbook is a required part of the course. *(Honors level work is offered to every student that chooses to participate in it. Materials are handed out to all students by their teacher during the first full week of school. A decision must be made and the teacher notified during the first two full weeks of the first quarter.)*

PREREQUISITE: Successful completion of Drawing & Painting

933 STUDIO ART/B: ('10-'11)

Grades 11, 12

1 Carnegie Unit

Semester 1 – This course will focus on drawing and painting. Students will expand upon their knowledge gained through taking Drawing & Painting. We will focus on acrylic painting, drawing in various media and working to improve skills from Studio Art/A (if they have taken the class). Various movements in art and artists from many cultures are related to class projects. A sketchbook is a required part of the course to complete homework assignments.

Semester 2 – This semester students will use their drawing skills to plan and explore sculptural projects. Students will work in relief and sculptures in-the-round. The additive, subtractive and assemblage methods of sculpture will be studied. The following materials will be considered for use within the class: clay, wood, wax, stone, wire, paper, plastic, plaster, and mixed media. A sketchbook will be a required part of the course. *(Honors level work is offered to every student that chooses to participate in it. Materials are handed out to all students by their teacher during the first full week of school. A decision must be made and the teacher notified during the first two full weeks of the first quarter.)*

PREREQUISITE: Successful completion of Drawing & Painting

936 COMPUTER ART:

Grades 10,11,12

1 Carnegie Unit

Computer Art is a year long course that meets the Fine Arts requirement. The course is taught student ibooks using the Painter 11 program. You will study the basic elements of art and design using the computer to complete your projects. You will prepare work in pencil on paper before plans are executed in the paint program. Students will examine works of art by looking at them, reading, writing, and discussing them.

938 PHOTOGRAPHY:**Grades 11,12****1 Carnegie Unit**

Semester 1 - This course is an introduction to the basic technical and aesthetic characteristics of black and white photography. Students will gain darkroom skills and explore the mechanics of the single lens reflex 35 mm camera. Students will study the history of photography and photographers of the past and present. They will learn how to develop film and print from their negatives. Students will be expected to research, write and participate in classroom presentations relating to photography as an art form. Semester 2 will focus on the creative aspects of photography as a means of artistic expression. Students will expand and manipulate the photographic process in the classroom as well as the darkroom. This is a hands-on studio course. We have a limited number of SLR cameras available for student use. Students must be able to use basic math and science skills in the darkroom.

PREREQUISITE: Successful completion of Foundations of Art I or permission of instructor

950 ADVANCED PLACEMENT STUDIO ART**Grade 12****1 Carnegie Unit**

This course has been developed to accommodate students who have expressed an interest in completing the AP Drawing Portfolio Exam, AP 2 D Design Portfolio, **or** 3D Design Portfolio. Therefore, all content meets the requirements as stated in the student AP poster. Through direct teacher instruction, emphasis will be placed on the production of a volume of quality pieces of art work. Students will address all three sections of the required portfolio: breadth, concentration, and quality. A typical student may need to spend four to eight hours of work outside of class on their portfolio during a typical week. Students will be required to complete a studio project during the summer as an entrance requirement for this course. *Students must declare their intent to participate in the AP Exam by registering and paying for the exam (estimated cost around \$86) following the end of the first quarter. In the event a student elects not to take the exam, the AP designation will not be reflected on the student's transcript and honors weight will be given in their G.P.A..*

PREREQUISITE: Studio Art