

Homer Central High School



Program of Studies 2021-2022

An Educational Planning Guide
for Students and Parents

Homer Central School District
P.O. Box 500
Homer, NY 13077
607.749.7246

Program of Studies 2021-2022

Program of Studies

HOMER HIGH SCHOOL
P.O. Box 500
80 South West Road
Homer, NY 13077

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Mrs. Jenn Greenfield..... Social Studies Curriculum Area Lead Teacher
Mrs. Tammy Zimmerman..... World Languages Curriculum Area Lead Teacher
Mr. Tom George..... Science Curriculum Area Lead Teacher
Mrs. Brooke Head Career and Technical Education Lead Teacher

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Homer Central High School
P.O. Box 500, Homer, NY 13077 – (607) 749-7246

Dear Students,

As we move forward into the new calendar year, it is also time to look toward and plan for the next school year. Looking toward your goals after high school should provide a guide for your academic choices for the year ahead. Your parents, school counselor and teachers will all be supports for you in this process.

The world we live in is constantly changing. Our goal is to provide our students with opportunities to develop into responsible and productive citizens who embrace lifelong learning. The Program of Studies identifies academic opportunities to develop your talents and abilities, supported by a team of dedicated, effective and well-supported professionals in a safe and nurturing learning environment.

As you begin your course selection process, I suggest the following approach as you proceed:

1. Read and understand the requirements for graduation.
2. Review course offerings for each department. Be mindful of prerequisites and course descriptions.
3. Look for opportunities to challenge yourself and grow in new ways.
4. Build a list of tentative course selections. Remember we have 8 academic periods and students need at least 5 courses plus P.E. each semester.
5. List alternate electives. Depending on the final schedule and enrollments, not all electives can be offered. Planning ahead will help, should you be faced with making a choice.

Homer High School's academic program represents a commitment to rigor, relevance and excellence for all students. Learning is exciting and your Program of Studies identifies the various choices you have to select a pathway to your future.

Sincerely,

Douglas A. Van Etten
Principal

Counseling Services

The Counseling Office provides a variety of programs and services to serve the students and families of Homer Senior High School. Selected services include:

- Help with course selection and scheduling
- Conduct graduation audits
- Discuss diploma options
- Provide academic planning and consultation
- Individual counseling
- One-on-one planning meetings with students
- New student orientation counseling with the assistance of Link Crew
- Parent/Teacher conferences
- Classroom presentations
- After school informational programs such as:
 - College Planning Night
 - Financial Aid Night
 - Freshmen Orientation
 - NCAA Night
 - PSAT/SAT/ACT Night
- Schedule changes
- Letters of recommendation and job references
- College application assistance
- Scholarship assistance
- Meeting coordination for families
- Mediation for students and their peers
- College and career planning
- Community resource referrals for students and families

COUNSELING OFFICE STAFF

Pictured from left to right:



Audrey Fairchild, School Counselor
 Kate Kerr, Secretary
 Chris Colasurdo, School Counselor
 Alaina Wallace, School Counselor
 Jennifer Capps, School Social Worker
 Darlene Latten, Director of Counseling

2021-2022	Grade 9	Grade 10	Grade 11	Grade 12
Mrs. Latten	A – D	A – D	A – D	A – D
Mrs. Fairchild	E – M	E – N	E – M	E – L
Mrs. Wallace	N – Z	O – Z	N – Z	M – Z

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Graduation Credit Requirements

To earn a diploma, every student must earn a minimum of 22 credits in addition to meeting specific New York State testing competencies.

Classes of 2022, 2023, 2024, 2025		
SUBJECT	REGENTS DIPLOMA Score 65 or above on all required Regents exams	ADVANCED REGENTS DIPLOMA Score 65 or above on all required Regents exams
English	4 Credits	4 Credits
Social Studies	4 Credits	4 Credits
Mathematics	3 Credits	3 Credits
Science	3 Credits	3 Credits
World Languages	1 Credit	3 Credits
Physical Education	2 Credits	2 Credits
Art or Music	1 Credit	1 Credit
Health	½ Credit	½ Credit
Electives	3 ½ Credits	1 ½ Credits
First Aid/CPR Training	0 Credits	Required for Graduation
TOTAL	22 Credits	22 Credits

Mastery of Math: Students who meet requirements for an Advanced Regents Diploma and who pass with a score of 85 or better on three Regents examinations in math will earn an annotation on their diploma that denotes Mastery in Math.

Mastery of Science: Students who meet requirements for an Advanced Regents Diploma and who pass with a score of 85 or better on three Regents examinations in science will earn an annotation on their diploma that denotes Mastery in Science.

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Diploma & Exiting Credential Requirements

Diploma	Grade	Number of Regents Exams Required
Diploma with Advanced Designation with Honors	Must have average score of 90 or higher on all required Regents exams	8 Regents exams and *LOTE assessment aligned to Checkpoint B 1 English 2 Social Studies (Global History & US History) 2 Science (Physical & Life Science) 3 Math (Algebra, Geometry, Algebra 2/Trigonometry)
Diploma with Advanced Designation	65 or higher on all required Regents exams	8 Regents exams and *LOTE Checkpoint B 1 English 2 Social Studies (Global History & U.S. History) 2 Science (Physical & Life Science) 3 Math (Algebra, Geometry, Algebra 2/Trigonometry) 1 LOTE Checkpoint B
Regents Diploma	65 or higher on all required Regents exams	5 Regents exams 1 English 2 Social Studies (Global History & US History) 1 Science 1 Math
	OR	OR
Honors Designation	Successful completion of 4 required exams and 1 pathway option	Students have the option to earn a Regents diploma by passing four Regents examinations and complete a pathway course of study/exam. As there are several options, a student must meet with both parent and counselor to determine a pathway. Students must earn an average of 90 or higher on all required Regents exams.
Local Diploma	Successful completion of state exam required	A local diploma may be granted to students with formalized Individual Education Plans.
Exiting Credentials		
CDOS Commencement Endorsement		This endorsement can be used by students to either supplement their earned high school diploma or serve as an additional credential for students with a documented disability who are unable to earn a high school diploma.
Skills and Achievement Commencement Credential		An alternate credential for students with severe disabilities who have been instructed and assessed based on alternate achievement standards.

*LOTE Checkpoint B is a locally developed Regents equivalent.

CLASS RANK – G.P.A.

Students receive a weighted average to determine class rank and G.P.A. (grade point average) for college applications. Final class rank is determined after the 2nd marking period of their senior year (seven semesters).

Courses are weighted as follows:

- 1.10 Advanced Placement courses, Dual Credit College courses, College Level Examination Program (CLEP) courses and Project Lead the Way (PLTW) courses
- 1.05 Honors classes
- 1.00 All other courses

An unweighted average will determine a student's eligibility for co-curricular activities, honor roll, parking privileges, National Honor Society, merit and senior honor study halls, and lunch privileges. Additionally, when a student earns a higher score on a Regents exam than the corresponding course, the Regents score will be used in the average.

REQUIREMENTS FOR STUDENT COURSE LOAD

To be considered a full-time student at Homer High School each student must enroll in a minimum of five courses plus physical education each semester. This is 5.5 credits per year (two semesters).

PROMOTING GUIDELINES

The minimum credits required to move to the next grade level are:

From Grade 9—10 5 ½ earned credits

From Grade 10—11 . . . 11 earned credits

From Grade 11—12 . . . 16 ½ earned credits/the potential to graduate in June

WITHDRAWALS FROM COURSES

Semester Courses

Up to 9 weeks

Full Year Courses

Up to 19 weeks

COURSE RECOMMENDATIONS

In January, teachers will propose course recommendations on SchoolTool for each of their students. If a student would like to question a recommendation, the student or parent should contact the teacher and school counselor to discuss options.

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NATIONAL COLLEGIATE ATHLETIC ASSOCIATION (NCAA) ATHLETIC ELIGIBILITY

The NCAA sets basic requirements for courses to be completed by high school students who want to be eligible to be college athletes. College-bound student athletes need to plan accordingly with course selection. Please familiarize yourself with Division I and Division II requirements at www.ncaa.org/student-athletes. Below is a list of Homer's approved courses. Each approved course is denoted in the Program of Studies as an NCAA Core Course. Please see your counselor for any questions.

Homer Approved NCAA Core Courses: **This list will be updated on a regular basis.*

English Language Arts	Science
English 9R	Earth Science R
English 9H	Earth Science H
English 10R	Biology R
English 10H	Biology H
English 11R	AP Biology
AP Language & Comp	Chemistry R
AP Literature & Comp	Chemistry H
Writing/Literature	Physics R
World Literature	Physics H
Poetry	Anatomy & Physiology
Journalism	Forensics
Speech, Debate & Comm	Marine Science
	Astronomy
	Principles of Engineering
Math	Social Studies
Algebra I (1/2 cr.)	Global Studies 9R
Algebra IR (1/2 cr.)	Global Studies 9H
Algebra IIR	Global Studies 10R
Algebra R	AP World History
Geometry R	U.S. History R
Math 12	AP U.S. History
AP Calculus AB	General Economics
AP Calculus BC	Economics Honors
Statistics	General Government
Pre-Calculus I & II	AP American Government
	AP Comparative Government
	Military History I & II
	Issues in Society I & II
	You and the Law
	America's Journey
	Intro to Ancient World
	Intro to Anthropology
	American West
	Women in American History
Additional Core Courses	
French & Spanish I	
French & Spanish II	
French & Spanish III	
French & Spanish IV	
AP French & AP Spanish	

Tompkins Cortland Community College Concurrent Enrollment Program

Tompkins Cortland Community College offers several dual credit courses to Homer High School students at no cost. Our teachers (and curriculum) have been approved by the college and our staff are considered adjuncts, teaching the same material, with the same textbooks, and to the same college transcript. As part of SUNY, Tompkins Cortland Community College credits are transferrable to colleges and universities around the nation.

The following courses are approved at this time for dual credit:

HOMER HIGH SCHOOL COURSE	TOMPKINS CORTLAND COMMUNITY COLLEGE COURSE	CREDITS
AP Biology	BIO 104 General Biology I	4
AP Biology	BIO 105 General Biology II	4
Business Computer Applications	CAPS 111 Intro to Word Processing	1
Business Computer Applications	CAPS 121 Intro to Spreadsheets	1
Business Computer Applications	CAPS 131 Intro to Databases	1
Business Computer Applications	CAPS 141 Presentation Software	1
Entrepreneurship	BUAD 103 Entrepreneurship I	3
Business Math	BUAD 104 Business Mathematics	3
Business Math	BUAD 109 Personal Money Mgmt.	3
Sports & Entertainment Marketing	BUAD 204 Principles of Marketing	3
Chemistry Honors	CHEM 101 Principles of Chem. I	4
Chemistry Honors	CHEM 102 Principles of Chem. II	4
Economics Honors	ECON 101 Intro to Economics	3
CADD	DRAF 120 Intro to CAD	2
Speech, Debate & Communication	ENGL 201 Public Speaking	3
Pre-Calculus I	MATH 120 College Alg. & Trig.	4
Pre-Calculus II	MATH 138 Pre-Calc. Math	4
Statistics	MATH 200 Statistics	3
AP Calculus AB	MATH 201 Calculus I	4

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AP Calculus BC	MATH 202 Calculus II	4
Physics Honors	PHSC 104 General Physics I	4
Spanish IV	SPAN 201 Intermediate Spanish I	3
AP Spanish	SPAN 202 Intermediate Spanish II	3
French III	FREN 102 Beginning French II	3
French IV	FREN 201 Intermediate French I	3
AP French	FREN 202 Intermediate French II	3

For more information go to: tc3.edu and click on CollegeNow, Concurrent Enrollment, and Course Offerings by School.

Rochester Institute of Technology

The following courses are approved at this time for dual credit:

HOMER HIGH SCHOOL COURSE	RIT COURSE	CREDITS
Design & Drawing for Production	Introduction to Engineering Design	3
Principles of Engineering	Principles of Engineering	3
Civil Engineering & Architecture	Civil Engineering & Architecture	3
Computer Integrated Manufacturing	Computer Integrated Manufacturing	3
Engineering Design & Development	Engineering Design & Development	3

For more information go to: pltw.org

SUNY Environmental School of Forestry (ESF)

HOMER HIGH SCHOOL COURSE	ESF COURSE	CREDITS
ESF in the High School: Global Environment	EFB 120 Global Environment	3

SUNY Cortland

HOMER HIGH SCHOOL COURSE	SUNY CORTLAND COURSE	CREDITS
Business Management	MGT 250 Principles of Management	3

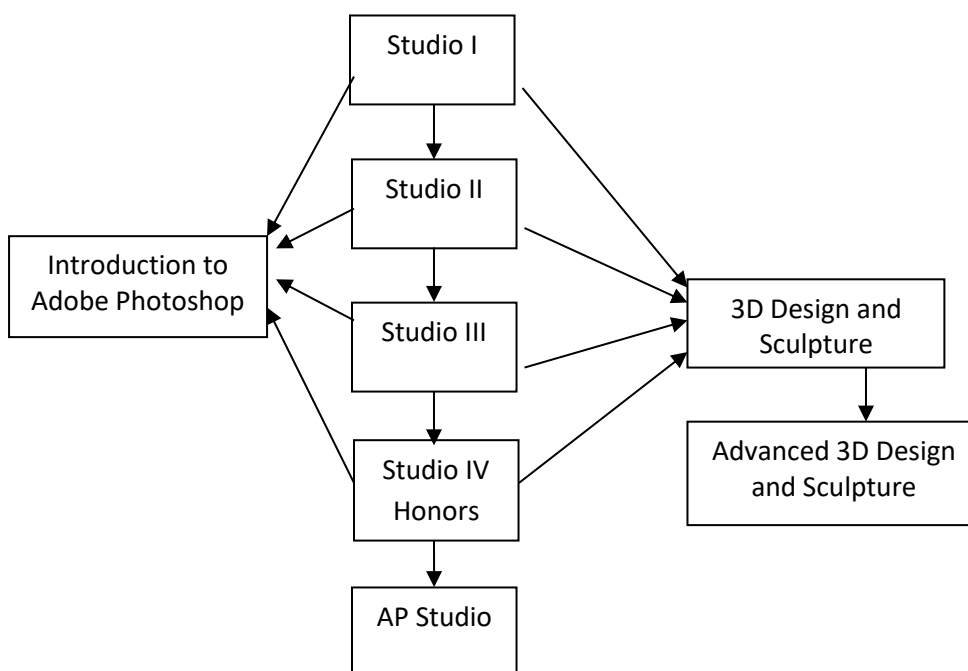
SUNY Morrisville

HOMER HIGH SCHOOL COURSE	SUNY MORRISVILLE COURSE	CREDITS
Morrisville in the High School: Intro to Environmental Science	ENSC 100 Introduction to Environmental Science	3

SUNY Cobleskill

HOMER HIGH SCHOOL COURSE	SUNY COBLESKILL COURSE	CREDITS
Agriculture, Food & Natural Resources	AGSC 131 Intro to Sustainable Agriculture	3
Agriculture, Food & Natural Resources	AGBU 100 Beginning Agriculture Business	3

ART DEPARTMENT



Studio in Art I

Prerequisite: None

Length: 40 Weeks

Credit: 1

In this foundation program for crafts, architecture, and visual arts, students are presented with a variety of projects covering design, color, sculpture, graphics, art history, and 20 weeks of drawing.

Note: This course may be used to satisfy the Regents requirement for one credit of Art, Music, or Technology.

Studio in Art II

Prerequisite: Studio in Art I

Length: 40 Weeks

Credit: 1

Intensive study of the mechanics of drawing (i.e., line, shape, form, shading). Materials: ebony pencil, soft and hard lead pencils, charcoal pastels, oil pastels, conte, crayon, and ink. Techniques (types of lessons): anatomy, still life, landscape, design, fantasy, illustration, cartooning, and printmaking. A sketchbook and colored pencils are required.

Studio in Art III

Prerequisite: Studio in Art II

Length: 40 Weeks

Credit: 1

While Studio III has been planned to meet state guidelines for “Advanced Drawing and Painting,” it has been expanded to offer a broader range of study. Students can expect to undertake advanced work in drawing, painting, design, sculpture, and three-dimensional designs. Students need to save work made during the year to add to Studio IV portfolio.

Studio in Art IV Honors

Prerequisite: Studio in Art III

Length: 40 Weeks

Credit: 1

Studio IV offers advanced versions of the areas undertaken in Studio III, with a strong emphasis on creative problem solving. Only students who have done well in Studio III should attempt this course. Each student will produce a minimum of ten pieces of art plus four from previous year. Students will be expected to be involved in 8 – 10 art shows over the course of the school year, including a presentation of a professional portfolio at year's end. *Students may be required to purchase materials throughout the year (ex: colored pencils, mat boards).*

AP Studio V Art Drawing, 3-D or 2-D Art and Design

Prerequisite: Studio in Art IV

Length: 40 Weeks

Credit: 1

AP Studio V Art is designed to help students create their professional college portfolio. Each student will produce a minimum of twelve pieces of art during the course, plus four from previous years. Students will be expected to be involved in 8 – 10 art shows over the course of the school year, including a presentation of a professional portfolio at year's end.

3D Design and Sculpture

Prerequisite: Studio in Art I

Length: 40 Weeks

Credit: 1

This class is an in-depth exploration into sculpture and 3D jewelry design. Students will work with metal, silver, copper, bronze, nickel, castings, hammer forging, plaster, and clay. In 3D Design students will become accustomed to the uses of Adobe Photoshop and jewelry design as well as product production and advertising. There will be studio costs associated with this class that reflect market prices of precious metal. Students need to seek pre-approval from teacher and space is limited. Student should be able to work independently.

Advanced 3D Design and Sculpture

Prerequisite: Teacher recommendation

Length: 40 Weeks

Credit: 1

This is a student-driven, teacher-guided class. Students should be independent and be able to maintain a strong work ethic. Projects will be advanced versions of what were previously created in 3D Design and Sculpture. Students need to seek pre-approval from teacher and space is limited. Student should be able to work independently.

Introduction to Adobe Photoshop

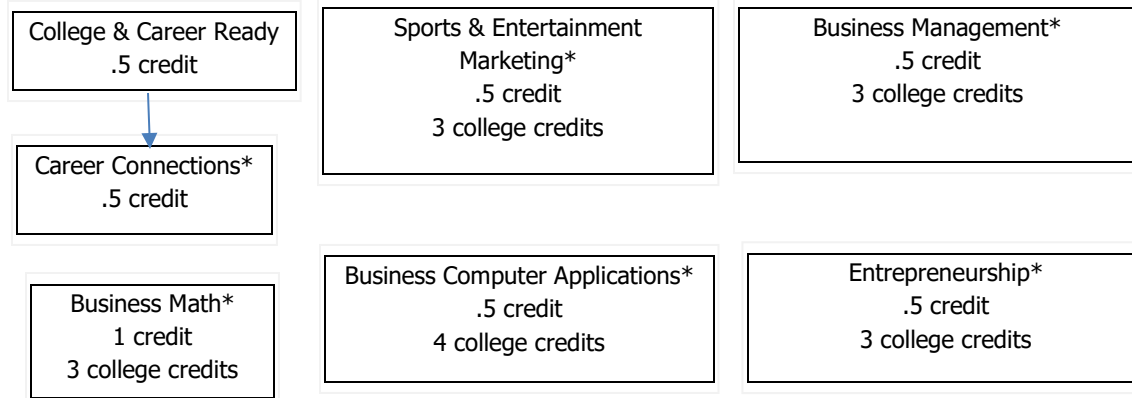
Prerequisite: Studio I

Length: 20 Weeks

Credit: ½

Students will spend the majority of this class using Adobe Photoshop. This elective introduces students to the techniques of creating and manipulating images. The emphasis of this course will be the production of creative graphics and photographs. This class can supplement items for a Regents-level portfolio but should not be taken as the last year in portfolio development.

BUSINESS DEPARTMENT



College and Career Ready

Prerequisite: None

Length: 20 Weeks

Credit: ½

This course is designed to make you STAND OUT among the crowd. It will help you nail that job interview. Create a killer resume. Build a portfolio to showcase the best of YOU. No matter what your plans are after high school CCR can, and will, help you get there! Some topics of study include a self-assessment, resume and cover letter, interviewing, college/career research and planning, applications, portfolio development, time management, goal setting, study skills, and life after graduation.

Business Computer Applications

Prerequisite: None

Length: 20 Weeks

Credit: ½

By next year, 77% of ALL jobs will require computer applications skills or 3 out of every 4 jobs, so make your resume stand out among the crowd! Through hands-on experience with computers, students develop an appreciation of business operations and specific applications of computer technology relevant to both college and career. In this project-based, fun and interactive course, students learn basic to advanced operations in the Microsoft Office Suite (Word, Excel, PowerPoint, and Access) by designing professional documents for a fictitious business of their choosing.

*College credit available from Tompkins Cortland (CAPS 111: Introduction to Word Processing - 1 credit, CAPS 121: Introduction to Spreadsheets - 1 credit, CAPS 131: Introduction to Database - 1 credit, and CAPS 141: Presentation Software - 1 credit; total = 4 credits)

Entrepreneurship

Grade level: Juniors and seniors only

Length: 20 Weeks

Credit: ½

Do you enjoy watching *Shark Tank*? Is the temptation of being your own boss calling? Do you dream of someday owning your own business? If so, this course is for you! This course is designed to provide students a basic foundation in the starting and managing of a small business. It is a project-based learning course where you develop a business idea and explores the behind the scenes of owning and operating a business. You will walk away with a business plan in hand!

*College credit available from Tompkins Cortland (BUAD 103: Entrepreneurship I, 3 credits)

Career Connections I & II

Prerequisite: Permission of teacher and College and Career Ready

Length: 20 Weeks

Credit: ½

How do you know you are a good fit for your dream career? Maybe job shadowing once is not enough? This course allows you to participate in an unpaid internship in the industry/career of your choosing for a minimum of 54 hours and receive high school credit! See the connection and first-hand application of academics and skills come together. What better way to learn about your chosen career? This course will help ensure that not only are you are a good fit for the job but that the job is a good fit for you!

Sports and Entertainment Marketing

Prerequisite : Juniors and Seniors only, or Sophomores with permission of teacher

Length: 20 Weeks

Credit: ½

Do you love sports and entertainment? Would you love to work in one of these ever-growing industries? If so this introductory, unique, and innovative course is designed with you in mind! It introduces students to the basic principles of marketing as they relate to the dazzling worlds of sports and entertainment. This course will develop critical thinking, decision making, and communication skills through real-world applications; and offers students an edge if planning to pursue any type of degree in sports or business. Content is heavily supported by guest speakers, case studies, field trips, videos, and computer activities.

*College credit available from Tompkins Cortland (BUAD 204: Principles of Marketing, 3 credits)

Business Management

Length: 20 Weeks

Credit: ½

Do you want to be a leader someday? Do you see yourself as the head-honcho in charge? If so this course is for you! Students learn to apply the five business management principles of planning, organizing, staffing, leading and controlling, as well as decision making. The course is hands-on, project-based, and is enhanced by the use of guest speakers, computer simulations, and case studies. *College credit available from SUNY Cortland (MGT 250: Principles of Management, 3 credits)

Business Math

Length: 40 Weeks

Credit: 1

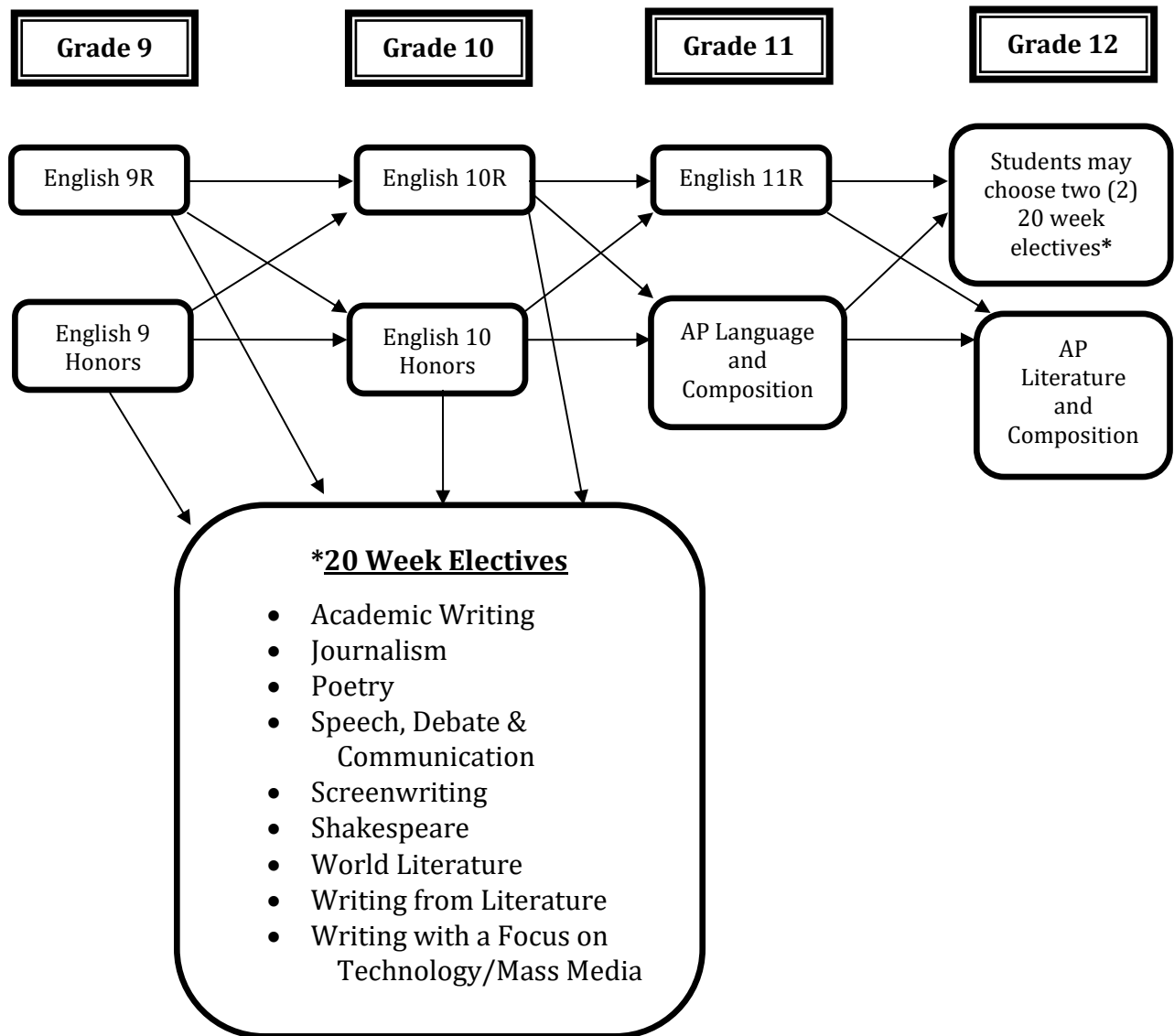
This is one class we promise you won't regret! This course is designed around REAL LIFE math. Learn the basics of mathematics as they apply to daily life. Learn to manage your personal, financial and/or business resources effectively. Emphasis will be placed on using real-world examples and applications. The first semester focuses on personal finances, and the second semester focuses on the finances of a business. With successful completion of two years of Math, this course may serve as the third year math requirement. Prerequisite: Two years of math.

*College credit available from Tompkins Cortland (BUAD 109: Personal Management, 3 credits. Please note credit transfers in as a business elective, *not* a math course).

ENGLISH DEPARTMENT

Emphasizing reading and writing skills on all levels, the English program focuses on skills developed through the use of the Common Core Learning Standards for English 9-12. The English Department offers Honors- and Regents-level year-long courses for grades 9, 10, and 11. The 12th grade curriculum is based on 20-week courses. The New York State Regents examination is given in June of the junior year.

Please note: The pathways shown below are typical routes from one course to another. They are not the only ways a student may progress. Please consult with a school counselor for the best choices for you.



REQUIRED COURSES

Literacy in English 9

Credit:1

This course is only for students with Individualized Education Plans. Placement determined at CSE meeting.

English 9 Regents

Prerequisite: None

Length: 40 Weeks

Credit:1

This course is a Standards-aligned study of the close reading of literary and informational texts. Composition, vocabulary, research, and outside reading are important components of the course. In addition, students receive instruction in the use of the library and online resources.

English 9 Honors

Prerequisite: 8th grade teacher recommendation

Length: 40 Weeks

Credit:1

This course is a Standards-aligned study of the close reading of literary and informational texts. Composition, vocabulary, research, and outside reading are important components of the course. In addition, students receive instruction in the use of the library and online resources. Supplementary readings and writings will expose students to a more enriched literary background in preparation for AP Language and Literature courses.

Literacy in English 10

Credit:1

This is a course only for students with Individualized Education Plans. Placement determined at CSE meeting.

English 10 Regents

Prerequisite: None

Length: 40 Weeks

Credit:1

This course is a Standards-aligned study of the close reading of literary and informational texts. Composition, vocabulary, research, and outside reading are important components of the course. In addition, students receive instruction in the use of the library and online resources.

English 10 Honors

Prerequisite: Teacher recommendation

Length: 40 Weeks

Credit:1

This course is a Standards-aligned study of the close reading of literary and informational texts. Emphasis is placed on higher-level problem-solving and writing skills, reading comprehension, and class discussion. In addition, students receive instruction in the use of the library and online resources. Supplementary readings and writings will expose students to a more enriched literary background in preparation for AP Language and Literature courses.

English 11 Regents

Prerequisite: None

Length: 40 Weeks

Credit: 1

This course is a Standards-aligned study of the close reading of literary and informational texts from a variety of sources. Composition, vocabulary, research, and outside reading are important components of the course. The New York State Common Core-aligned English exam will be given during this academic year.

AP Language and Composition

Prerequisite: Teacher recommendation, English 10 Regents OR English 10 Honors

Length:

Credit: 1

Introductory college-level rhetoric and writing curriculum, which requires students to develop evidence-based analytic and argumentative essays that proceed through several stages or drafts. Students evaluate, synthesize, and cite research to support their arguments. Throughout the course, students develop a personal style by making appropriate grammatical choices. Additionally, students read and analyze the rhetorical elements and their effects in non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods.

Students will complete the English 12 credit by completing 2 of the 8 following courses or AP English Literature & Composition:

1. World Literature

Prerequisite: English 9

Length: 20 Weeks

Credit: ½

This course offers a chronological study of World Literature. Students will begin with epics from ancient cultures and will proceed through other genres into the Modern Era. Composition, vocabulary, speech, and a portfolio project are also integral components of the course. Students will complete the English 12 credit by completing at least one of the following three courses:

2. Academic Writing

Prerequisite: English 9

Length: 20 Weeks

Credit: ½

Academic writing is a course that covers two different types of “real-life” writing. One is centered on business writing, in which the skills of letter writing, report writing, and reflective writing are taught. Students keep daily journals and notebooks, research a company, write a business report, and develop a brochure. They must also conduct an interview. In the second half of the course, students will argue an issue and demonstrate that they can conduct research using various tools and resources. They will compose a logical, persuasive research paper. Technology proficiency is stressed, along with critical reading and analytical writing skills. No fiction is taught in this course. Writing skills are a daily task.

3. Writing from Literature

Prerequisite: English 9

Length: 20 Weeks

Credit: ½

This course includes an emphasis on expository essays. Analysis and argument will be a focus. Research methods will also be taught, using the MLA citation form. Literature will be largely fiction, including a comparative literature approach.

4. Writing with a Focus on Technology/Mass Media

Prerequisite: English 9

Length: 20 Weeks

Credit: ½

This course emphasizes writing in various personal analyses of literature, non-fiction, film, and other print and online mediums. There will be a focus on journalism and analysis of online sources. Involvement in blogging and web publication/design/online writing will also be a component.

5. Journalism

Prerequisite: English 9

Length: 20 Weeks

Credit: ½

This course in journalism will involve intensive writing instruction as well as critical analysis/close reading of nonfiction sources as templates and guides. It will also involve public speaking, research, collaborative work, and aspects of new media. Anticipated student outcomes include that students will regularly publish articles in the student newspaper *The Olympian* and to understand the writing process, the rules and requirements of journalism and the current media market.

6. Poetry

Prerequisite: English 9

Length: 20 Weeks

Credit: ½

Many students in Homer have expressed an interest in learning more about reading and writing poetry. Upon completing the course, students will be able to analyze and interpret many different kinds of poetry and write original poetry using specific poetic elements.

7. Screenwriting

Prerequisite: English 9R

Length: 20 Weeks

Credit: ½

This course in screenwriting will involve intensive writing instruction (both creative and technical) as well as critical analysis/close reading of fiction and nonfiction sources as templates and guides. The course will also involve public speaking, research, collaborative work and aspects of marketing. Anticipated student outcomes include that students will produce finished scripts and understand the writing process, rules and requirements of scriptwriting and the process of marketing a script.

8. Shakespeare

Prerequisite: English 9

Length: 20 Weeks

Credit: ½

This course provides a deeper exploration into the work of Shakespeare, including types of plays (Comedy, Tragedy, History) and sonnets. Students will analyze the influence of Shakespeare's work on contemporary culture and experience various interpretations of the plays.

9. Speech, Debate & Communication

Prerequisite: English 9

Length: 20 Weeks

Credit: ½

In this course, students will explore the basics principles of interpersonal communication, group dynamics, and public presentation. Students will not only analyze the composition and delivery of other speakers in a variety of situations, they will also be expected to participate in a variety of communication activities as well as develop, organize, and deliver their own presentations. This is a dual enrollment course, but college credit is awarded only to seniors.

AP English Literature & Composition

Prerequisite: Teacher recommendation

Length: 40 Weeks

Credit: 1

The AP English Literature and Composition course aligns to an introductory college-level literary analysis course. The course engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical and argumentative essays that require students to analyze and interpret literary works.

HEALTH DEPARTMENT

Health

Prerequisite: None

Length: 20 Weeks

Credit: ½

This one-semester course focuses on attitudes, behaviors, and understanding of the six riskiest behaviors and the leading causes of death among teenagers as identified by the Centers for Disease Control. It is required for graduation. Health education offers students instruction and skills to maintain good health and wellness throughout their lifetimes. The mission of the course is to provide real-life experiences and personal applications of health information in relevant situations. The intent is to motivate students to improve their health, prevent disease, and avoid or reduce health-related risk behaviors. Units covered include: Mental Health and Wellness, Interpersonal Relationships, Nutrition and Physical Activity, Communicable vs. Non-Communicable (Chronic) Disease and Prevention, STIs/STDs and HIV/AIDS, Human Sexuality, and Alcohol, Tobacco, and Other Drugs.

Careers in Health

Prerequisite: Health

Grade level: Juniors and seniors only

Length: 20 Weeks

Credit: ½

This course introduces students to medical careers available in today's high-tech facilities, preparing students for possible careers in the fields of health, nursing, physical therapy, athletic management, public service, EMS, and fire/rescue.

Psychology

Prerequisite: Health

Grade level: Seniors only

Length: 20 Weeks

Credit: ½

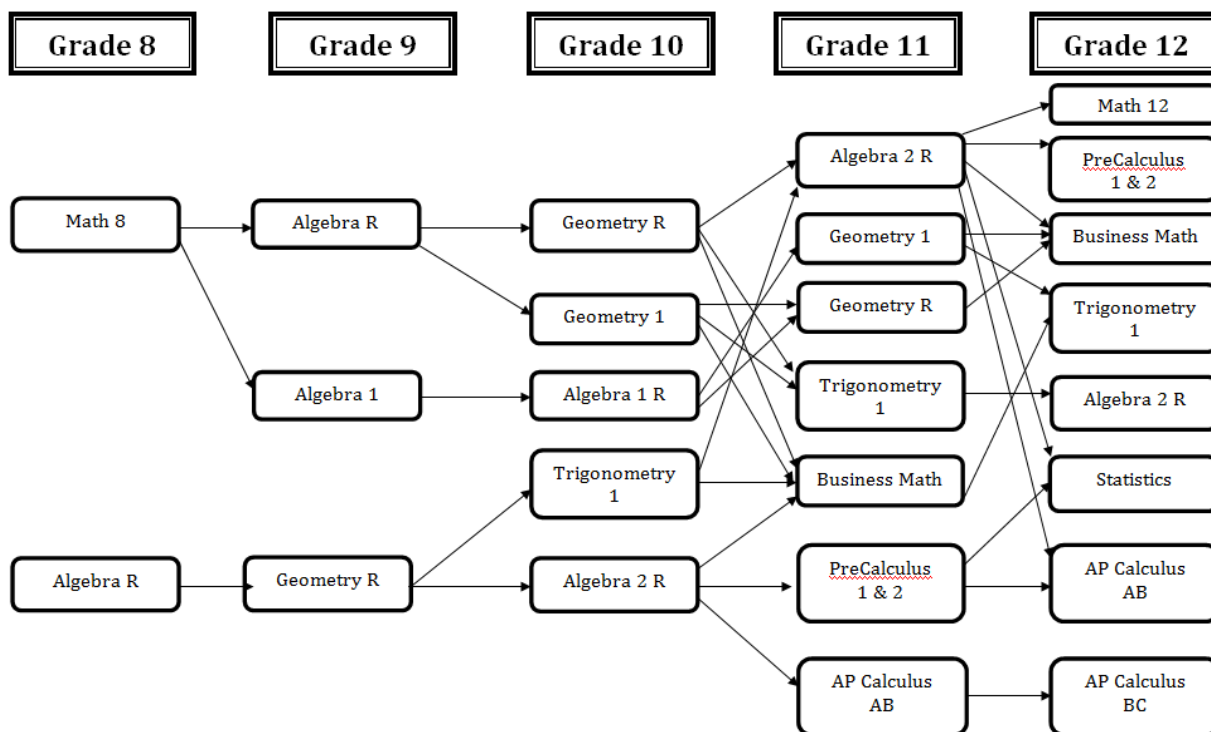
This is a general psychology course that includes the study of human relations; awareness and perception, memory and thought, body and behavior, psychological growth, personality theories, disturbance, and breakdown. The course is fashioned after college Psychology 101.

MATH DEPARTMENT

The emphasis of the math program is to develop logical thinking and reasoning skills. This curriculum provides a basis for further study for those pursuing higher education, as well as a foundation in necessary math skills for those choosing to enter the workforce.

Please note: The pathways shown below are typical routes from one course to another. They are not the only ways a student may progress. Please consult with a school counselor for the best choices for you.

Math Department



Math Foundations

Length: 40 Weeks

Credit:1

This is a course only for students with Individualized Education Plans. Placement determined at CSE meeting.

Algebra I

Prerequisite: None

Length: 40 Weeks

Credit:1

This course is parallel to the algebra program but moves at a less rigorous pace. It is the first course of a two-year program leading to the Common Core Regents exam in Algebra at the end of the second year.

Algebra I Regents

Prerequisite: Algebra I

Length: 40 Weeks

Credit:1

This is the second year of the Algebra I curriculum; the Common Core Algebra Regents exam is given in June.

Algebra Regents

Prerequisite: None

Length: 40 Weeks

Credit:1

This is the first course of a three-year sequence. Topics include: polynomials, equations, verbal problems, factoring, powers, roots, radicals, ratios, proportions, systems of equations, graphing, quadratics, probability, statistics, and introduction to geometry. The Common Core Algebra Regents exam is given in June.

Business Math

Prerequisite: Two years of math

Length: 40 Weeks

Credit:1

This is one class we promise you won't regret! This course is designed around REAL LIFE math. Learn the basics of mathematics as they apply to daily life! Learn to manage your personal, financial and/or business resources effectively. Emphasis will be placed on using real-world examples and applications. The first semester focuses on personal finances with the second semester focusing on the finances of a business. With successful completion of two years of Math, this course may serve as the third-year math requirement. Prerequisite: Two years of math. *College credit available from Tompkins Cortland (BUAD 109: Personal Management, 3 credits. Please note credit transfers in as a business elective, *not* a math course).

Geometry I

Prerequisite: Algebra I R or Algebra R

Length: 40 Weeks

Credit:1

This course is parallel to the geometry program but moves at a less rigorous pace. This is the first course in the geometry program that allows students to understand the basics of geometry but is not as rigorous as Geometry R.

Geometry Regents

Prerequisite: Algebra I R & Algebra R

Length: 40 Weeks

Credit:1

This is the second year of a three-year sequence in mathematics. Topics include: sets and operations, conic section, Euclidean and coordinate geometry proofs, indirect proofs, solid geometry, transformational geometry and rigid motions. The Common Core Geometry Regents exam is given in June.

Trigonometry I

Prerequisite: Geometry I or Geometry R

Length: 40 Weeks

Credit:1

This course is parallel to the trigonometry program but moves at a less rigorous pace with no Regents exam. This is designed for students planning on furthering their education and not for strong math students.

Algebra II Regents

Prerequisite: Geometry R

Length: 40 Weeks

Credit:1

This is the final year of a three-year sequence in mathematics. Topics include: sets and operations, factoring, roots, radicals, exponents, systems of equations, complex numbers, graphing functions and higher degree equations, variations, trigonometric functions, application of trigonometry functions, statistics, and binomial theorem. The Common Core Algebra II exam is given in June.

Math 12

Prerequisite: Algebra II Regents

Length: 40 Weeks

Credit:1

This course covers fundamental algebra and trigonometry between elementary algebra and pre-calculus. Topics include: polynomial and rational expressions, graphing, functions, 1st and 2nd degree equations, polynomial, rational functions, absolute value, transformations, complex numbers, right triangles, and functional trigonometry. Credit will be given for Tompkins Cortland Community College Math 120 upon successful completion.

Statistics

Prerequisite: Algebra II Regents

Length: 40 Weeks

Credit:1

Students will be able to formulate statistical questions and identify statistical claims made by others, collect appropriate data to answer statistical questions, use a wide variety of tools to analyze and summarize distributions of data, draw conclusions from statistical questions, and reflect on their own conclusions and conclusions made by others using statistics. Various activities familiar to students, including statistics in sports will be used as basis to apply statistical analysis. This is an option for students to take a fourth year of mathematics. Credit will be given for Tompkins Cortland Community College Math 200 upon successful completion.

***Pre-Calculus I**

Prerequisite: Algebra II Regents

Length: 20 Weeks

Credit:½

Students planning a college major that requires calculus, especially Mathematics or Science majors, should take this course. Topics include fundamentals of algebra with an emphasis on the principles needed for calculus, functions and their graphs, and applications of both linear and quadratic functions. Credit will be given for Tompkins Cortland Community College Math 120 upon successful completion. Students must earn a C or better to be eligible to enroll in Pre-Calc II.

**Students who complete the Algebra II/Trig Regents exam and course scoring a 90 or above may consider enrolling in AP Calc AB or Pre Calc. This decision should be made in consultation with (not approval by) the Algebra II/Trig teacher. Juniors taking Calculus I should consider options to be active in Math as seniors. This may include AP Calc BC when sufficient enrollment and staffing allows.*

Pre-Calculus II

***Prerequisite:* Pre-Calculus I**

***Length:* 20 Weeks**

***Credit:* ½**

This course is a continuation of Pre-Calculus I. Topics include: the study of the four conic sections, polynomial and rational functions, synthetic division along with the factor, remainder and rational root theorems, composition and decomposition of functions, radical functions, inverse functions, exponential and logarithmic functions, and trigonometric functions. The emphasis is placed on how these functions are used in the study of calculus. Credit will be given for Tompkins Cortland Community College Math 138 upon successful completion.

AP Calculus AB

***Prerequisite:* Pre-Calculus I/II or teacher recommendation**

***Length:* 40 Weeks**

***Credit:* 1**

This is a college course offered in conjunction with Tompkins Cortland Community College for four units of college credit. Topics include: fundamentals of algebra, linear, rational, radical, exponential and logarithmic functions and equations, trigonometry, circular functions, sequences and series, limits, techniques of differentiation and integration, related rates and applied maximum and minimum problems. Calculus AB AP is intended to prepare students who will take the Calculus AB AP exam in May.

AP Calculus BC

***Prerequisite:* Calculus AB**

***Length:* 40 Weeks**

***Credit:* 1**

This course is a continuation of Calculus I. Topics includes: differentiation and integration of elementary functions, parametric equations, polar coordinates, arc length, curvature, L'Hopital's Rule, and improper integrals. Use of the graphing calculator is required. Use of the TI-83 Plus and TI-89 will be permitted. The course is intended for engineering, liberal arts, and computer science students. Calculus BC AP is intended to prepare students who will take the Calculus BC AP exam in May. Instructional mode is primarily lecture.

MUSIC DEPARTMENT

Participation in music groups and classes is fun, rewarding, and enriching! Homer High School provides students with the opportunity to experience excellent band and choral classes, as well as in-depth historical, theoretical, and computer-assisted instruction in music. Offerings for students are broken down into three categories:

VOCAL MUSIC

Concert Choir

Prerequisite: Chamber Choir, teacher recommendation

Length: 40 Weeks

Credit: 1

The Concert Choir is a large performing ensemble. Participation in numerous performances is required of all members. Major performances include a Winter Concert, an All-District Choral Concert, and a Spring Concert. The Concert Choir may also travel to other locations for exchange concerts, workshops, and festivals whenever feasible.

The ensemble studies many genres of music that include: classical, folk, pop, show tunes, vocal jazz, ethnic, and more. Selected students are given solo performance opportunities. This is a highly talented ensemble that has a history of performing very challenging music (Level V and VI) and receiving silver or gold ratings from NYSSMA at performances.

Students receive one unit of credit for the year's participation in Concert Choir; however, Concert Choir members who are also Band members and who therefore attend rehearsals of each organization (on alternate days) will receive ½ credit for the year from each organization.

Students in Choir attend group voice lesson once weekly to receive more personalized instruction than can be given in the full group rehearsals. Students may also choose to prepare for a NYSSMA solo, which could qualify them for participation in All-County, Area All-State, or All-State the following year. As a member of the Concert Choir, students are eligible for participation in Men in Black, Women in White, Ruby Rhythms, Blue Notes, and the Holiday Ensemble. **Note: Students may not request Choir every other day in order to participate in another class or study hall.**

Chamber Choir

Prerequisite: None

Grade level: Freshmen only

Length: 40 Weeks

Credit: 1

The Chamber Choir is a performing ensemble designed to ease the transition from junior high to senior high school-level music. This class is intended for 9th grade students seeking a Fine Arts credit. Major emphasis is placed on music reading, ear training, intonation, sight reading, tone, balance, and blend. Required performances include: Winter Concert, All-District Vocal Concert, and Spring Concert. Participation in all performances is required of all members. As a member of the Chamber Choir, students are eligible for participation in Men in Black, Women in White, Ruby Rhythms, Blue Notes, and the Holiday Ensemble.

The Chamber Choir studies many genres of music including classical, folk, pop, show tunes, vocal jazz, ethnic, and more. All students will have the opportunity to audition for solo performances in choral pieces. This is a chamber ensemble in which students will have more individualized attention and the opportunity to hone their skills in preparation for participation in Concert Choir the following year.

Program of Studies 2021-2022

Students in Choir attend group voice lesson once weekly to receive more personalized instruction than can be given in the full group rehearsals. Students may also choose to prepare for a NYSSMA solo, which could qualify them for participation in All-County or Area All-State the following year.

INSTRUMENTAL MUSIC

Senior High Band

Co-requisite: Weekly lessons

Length: 40 Weeks

Credit: 1

This group meets each school day and performs public concerts and judged performances throughout the year. Out-of-town competitions and optional small-group performances are also arranged.

The organization's repertoire explores many different styles of music including classical, show tunes, concert marches, pop selections, ethnic music, jazz, and more. The band has a tradition of performing challenging music (Level V or VI) and receiving high ratings of silver or gold. The ensemble has won awards in competitions in Canada and the United States. Members of Band may be selected for the Area All-State Band, or the All-State Music Ensemble (the highest honor), based on participation in the state's spring solo festival.

Individually, students may request Band every other day for ½ credit, but only if Chorus is scheduled during the same period. When enrollment permits, a second, more select Wind Ensemble will be formed through auditions.

Note: Students may not request Band every other day in order to participate in another class or study hall.

Instrumental Lessons

Prerequisite: Teacher recommendation

Length: 40 Weeks

Credit: ¼

One lesson per week for students not enrolled in Concert Band and for extracurricular co-requisite lesson requirement. Certain conditions apply. Please see Instrumental Music Teacher.

ELECTIVE COURSE OFFERINGS

Bach to Rock

NOTE: This course satisfies the Art/Music and Technology requirement

Prerequisite: None

Length: 40 Weeks

Credit: 1

This is a project-based course that covers a broad range of topics related to music. We will study music throughout history from the medieval time period to today's music and back, and learn to better listen, analyze, create, and play music on keyboards, guitar, bass, and drum set. We will alternate between book work and performance units and cover a wide range of subjects to address areas of student interest utilizing modern technology as well as instruments and traditional techniques.

Music Theory I

***Prerequisite:* Students must be enrolled in Band or Choir, or teacher permission, Bach to Rock**

***Length:* 40 Weeks**

***Credit:* 1**

This course is a study of the components of music notation and structure, including intervals, triads, harmonization, melody, structure, and basic music composition. Instruction will include use of music notation and sequencing programs on computers. The course is designed for serious music students. **It is offered on even-numbered school years.**

AP Music Theory

***Prerequisite:* Students must be enrolled in Band or Choir or teacher recommendation and Music Theory I**

***Length:* 40 Weeks**

***Credit:* 1**

This course will help students develop advanced knowledge of musical structure, composition, and analysis with the intent of preparing students for music study at the college level and for the AP Music Theory exam. Students will develop aural skills, oral music reading skills, and keyboard skills. **It is offered on odd-numbered school years.**

PHYSICAL EDUCATION DEPARTMENT

In the Physical Education curriculum, students will participate in activities that will empower them to continue regular, lifelong physical activity as a foundation for a healthy, productive life. The student will leave Homer High School well-rounded in a variety of individual and team sports, social skills, selected areas of wellness, and lifetime fitness. Students will have the knowledge and basic skills to establish and maintain physical fitness, participate in physical activities, and maintain good personal health.

The high school curriculum builds upon the program at the junior high school with a progression of activities that are activity based, preparing students for lifetime wellness through physical activity. Active participation, skills and knowledge, and positive values expressed through “character education” are the foundation of the high school program. Understanding that all students will not excel in all areas of physical education, the goal of the curriculum is to assist students in:

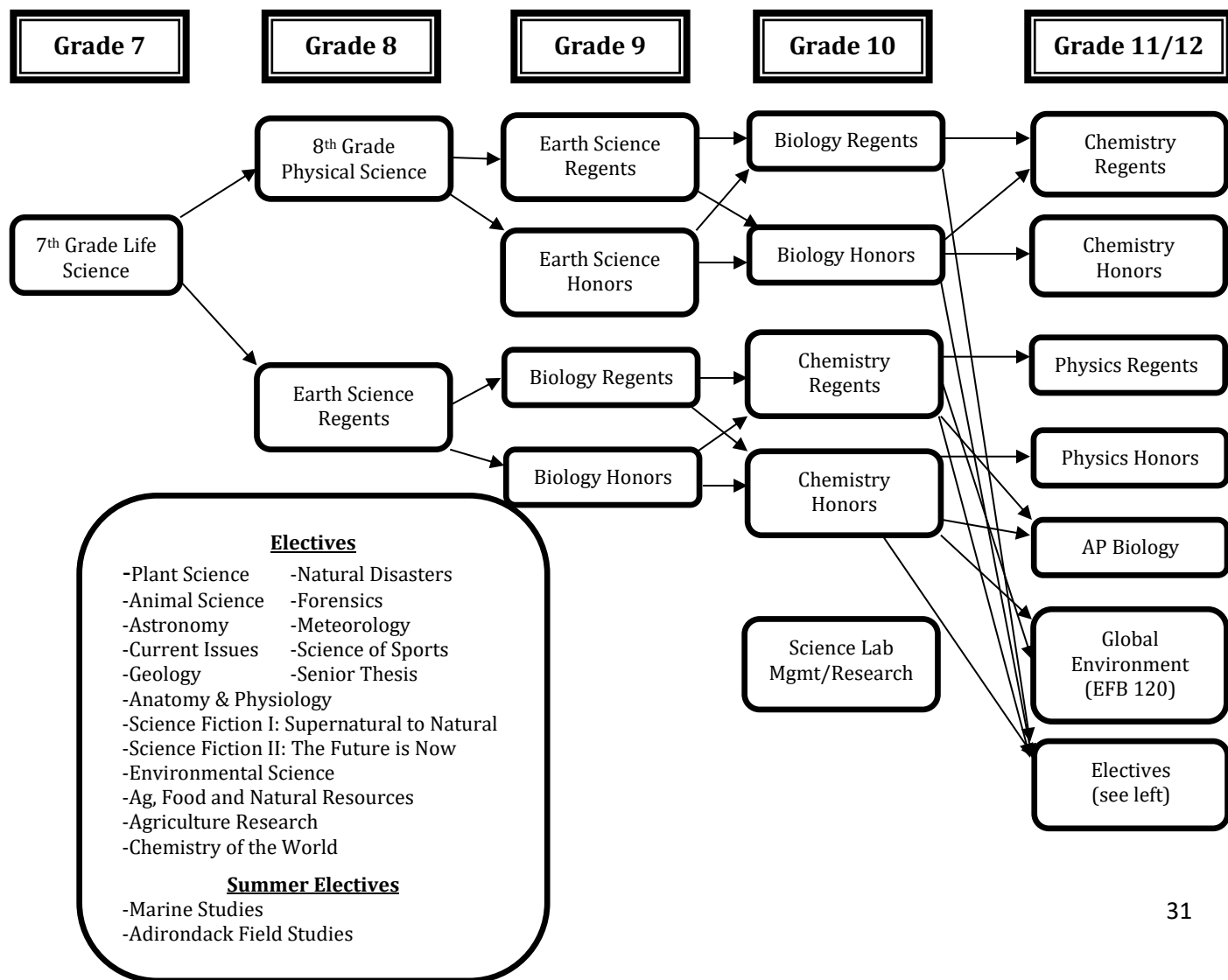
- Developing competency/proficiency in a variety of activities
- Understanding the benefits of regular physical exercise
- Understanding the effects of activity on the body and risks associated with inactivity
- Understanding the basic components of health-related fitness (cardio-respiratory, muscular strength, muscular endurance, flexibility, and body composition) and how to include them in the development of a personal fitness program
- Demonstrating responsible social behavior while participating in physical activity or as a spectator
- Performing cardio-respiratory activities within the target heart range by using the FITT principle
- Understanding diversity in groups and how to work through differences
- Promoting lifetime health and wellness
- Developing a positive self-image
- Developing sound safety habits and attitudes
- Finding opportunities to develop leadership abilities.

SCIENCE DEPARTMENT

The student has the opportunity to learn an array of scientific concepts, related facts and laboratory skills through a program of numerous offerings. Laboratory work is incorporated into all levels. At least one Regents exam is required in Science by the state for graduation. The Regents sequence is designed for all students. The Advanced Regents sequence requires three years of Science and passing two Regents exams. The student who plans to go to college should take this sequence. The Honors sequence is designed for those students who are contemplating majoring in science in college or who want a more rigorous course than the core Regents course. The Advanced Placement program is for the student who wishes to earn college credit for a particular course. This credit may be granted upon successful completion of the AP exam.

In Regents-level courses, laboratory exercises encompassing at least 1200 minutes of laboratory periods and accompanied by satisfactorily written reports are **state mandated** for Regents examination eligibility. Each student in Regents, Honors, and AP level courses will be scheduled for nine classes in a six-day cycle in order to meet time requirements and accomplish this work. The Regents exam is the final exam in all Regents and Honors level courses.

Please note: The pathways shown below are typical routes from one course to another. They are not the only ways a student may progress. Please consult with a school counselor for the best choices for you.



GRADUATION REQUIREMENTS

Every student is required to successfully complete three full years of Science. At least two of these courses must be based on the New York State Core, and the student must pass at least one of the Regents exams.

→ *Advisor note: Students should maintain an 80 average to remain in any Honors level course. Grades will be assessed at the end of each 5 week report period.*

Earth Science Regents

Prerequisite: None

Length: 40 Weeks

Credit: 1

This course will follow the Earth Science Core Curriculum. The three main areas of study are:

1. Geology – rocks and minerals, plate tectonic theory, and Earth history
2. Meteorology – atmospheric energy and its relation to weather and climate
3. Astronomy – the universe, our solar system, and motions of the Earth and Earth's moon.

Laboratory investigative approach to learning is emphasized. Satisfactory skill in completing lab reports is essential. At the completion of the course, students will take the New York State Regents exam in Earth Science. A NYS lab requirement must be satisfied by the student to be eligible to take the Regents exam.

Earth Science Honors

Prerequisite: None

Length: 40 Weeks

Credit: 1

This course will follow the Earth Science Core Curriculum as described for Regents Earth Science, but there will be increased depth and detail to each main area of study. Additional content may also be included that involves an increased emphasis on scientific inquiry as determined by the instructor. This may include an increased emphasis on the student's use of technology or a long-term independent field or laboratory research project in addition to the required lab reports. At the completion of the course, students will take the New York State Regents exam in Earth Science. A NYS lab requirement must be satisfied by the student to be eligible to take the Regents exam.

Biology Regents

Prerequisite: None

Length: 40 Weeks

Credit: 1

This course presents a concentrated study of unity and diversity among living things, maintenance of living things, human physiology, reproduction and development, transmission of traits from generation to generation, evolution, and ecology. The requirements include the satisfactory completion of all assigned laboratory reports and mastery of laboratory skills. The final exam is the Living Environment Regents. A NYS lab requirement must be satisfied by the student to be eligible to take the Regents exam.

Biology Honors

Prerequisite: None

Length: 40 Weeks

Credit: 1

This course is offered to students as an alternative to Biology Regents. Students planning to take Honors Chemistry or Advanced Placement Biology are encouraged to take Honors Biology. Honors Biology will cover the same topics required in the Biology Regents/Living Environment curriculum. These topics include: ecology, botany, genetics, anatomy, and physiology. Students in Honors Biology will study these topics in more depth and detail. More long-term investigations and

relationships with current research will take place in this class. The final for this course will be the Living Environment Regents. A NYS lab requirement must be satisfied by the student to be eligible to take the Regents exam.

Chemistry Regents

Prerequisite: None

Length: 40 Weeks

Credit: 1

This course enables the student to learn skills and content dealing with a modern study of matter. Units include: matter and energy, atomic structure, bonding, periodic table, mathematics of chemistry, kinetics and equilibrium, acids and bases, redox and electrochemistry, organic chemistry, and in-depth study of any of the required units. Requirements for admission to the Regents exam includes satisfactory completion of assigned laboratory reports.

Chemistry Honors

Prerequisite: None

Length: 40 Weeks

Credit: 1

College level laboratory exercises and material will be covered. The major units will include atomic structure, bonding, stoichiometry, thermodynamics, kinetics, equilibrium, acids and bases, electrochemistry, and an introduction to organic chemistry. Laboratory reports, homework, tests, a comprehensive final, and the New York State Regents exam will be required. Students enrolled in this class may earn up to eight college credits with TC3's concurrent enrollment program. Student's transcript from TC3 will follow the student throughout their academic career. A NYS lab requirement must be satisfied by the student to be eligible to take the Regents exam.

Physics Regents

Prerequisite: None

Length: 40 Weeks

Credit: 1

This course presents a modern view of Physics with the major emphasis placed on the fundamental concepts underlying the basic science. Topics studied are mechanics, energy, wave phenomena, electricity and magnetism, modern physics, and motion in a plane. The underlying themes of the course are problem solving and the development and application of skills, particularly math, needed to solve problems. Classwork is reinforced through laboratory experiences.

Note: Laboratory exercises representing at least 1200 minutes and accompanied by satisfactorily written reports are required for Regents exam eligibility. Proficiency in seven laboratory skills is also required for exam eligibility.

Physics Honors

Prerequisite: None

Length: 40 Weeks

Credit: 1

This course will cover the Regents Physics curriculum as well as other topics at an advanced level. The pace will be more rapid than that of the Regents Physics course and will include more complex laboratory assignments. The course will focus on problem solving, skills development, applications, and error analysis. Students are required to complete all assignments including **written** laboratory reports, the Regents exam, a midterm, and a final. Students enrolled in this class may earn up to four college credits with TC3's concurrent enrollment program.

ELECTIVE COURSE OFFERINGS

Advanced Placement Biology

Prerequisite: Biology Honors and Chemistry Honors OR permission of the instructor

Length: 40 Weeks

Credit: 1

This course is designed for juniors and seniors wishing to take an advanced study of Biology. Major topics include: biochemistry and cellular structure, genetics and evolution, and organisms as populations. Course requirements will include in-depth laboratory activities and reports, essays, exams, a midterm and a final. A major focus of the course will be preparation for the Advanced Placement exam given in May. Students enrolled in this class may earn up to eight college credits with TC3's concurrent enrollment program.

NON-LAB ELECTIVES

Animal Science

Prerequisite: Completed Biology or concurrently taking Biology

Length: 20 Weeks

Credit: ½

This course will include selection, care, and management of animals; health care, nutrition, and breeding and genetics of both large and small animals. The livestock and pet care industry is a large and growing source of interesting careers including veterinarians, research technicians, and business owners.

Plant Science/Landscaping

Prerequisite: Completed Biology or concurrently taking Biology

Length: 20 Weeks

Credit: ½

Students have the opportunity to learn about the vast field of plant science in this course. They will explore plant identification, reproduction, growth and growth regulators, pests and their control, floral design, soil management, and propagation techniques. They will grow plants in the greenhouse and use their artistic talent with landscape design and computer-assisted planning. Actual installation and maintenance of a landscape planting will add to the student's learning and experience.

Astronomy

Prerequisite: Earth Science

Length: 20 Weeks

Credit: ½

This is an introductory course designed for students with an interest in the basic physical principles governing the universe. The course will include the history of man's explorations of space and the current theories of the formation and evolution of stars, galaxies, and the universe itself. Course requirements will include exams, current event reports, class activities, and a final exam.

Current Issues in Science

Prerequisite: None

Length: 20 Weeks

Credit: ½

This course is designed to provide students with a basic understanding of the scientific principles necessary to understand current scientific issues. Possible topics may include: stem cell research, cloning, transgenic organisms, global diseases (chronic wasting, avian influenza, AIDS), natural disasters, nuclear waste disposal, and development of alternative energy sources. Students will be asked to help identify topics of interest and will be required to write reports.

Agriculture, Food, and Natural Resources

Prerequisite: None

Length: 40 Weeks

Credit: 1

This course introduces students to agricultural opportunities and pathways of study in agriculture. Students experience hands-on activities, projects and problems. Class experiences will involve communication, the science of agriculture, plants, animals, natural resources and agriculture mechanics. While surveying the resources, students learn to solve problems, conduct research, analyze data, work collaboratively, and take responsibility for their actions, learning, and work.

Agriculture Research

Prerequisite: AFNR, Plant Science OR Animal Science, Biology

Length: 40 Weeks

Credit: 1

Students are exposed to or identify a problem in agriculture. They then respond to the problem by creating a prototype or a solution to solve the real-world problem. They will learn problem solving and critical thinking skills. They will also create presentations and communicate their solutions to local community members.

Chemistry of the World

Prerequisite: Successful completion of Algebra and Regents Living Environment; Juniors/Seniors

Length: 40 Weeks

Credit: 1

This course will teach the essential principles of chemistry needed to understand the important role that chemistry plays in students' everyday lives. A focus on problem-solving and decision-making will be used to help students develop skills that will help them to be active and informed citizens in this ever-changing world. There will be a strong hands-on lab component present throughout the course. These activities will reinforce concepts, provide practice in laboratory skills, and teach students how to analyze and evaluate data.

ESF in the High School – Global Environment (EFB120)

Prerequisite: Successful completion of NYS Regents Earth Science, NYS Regents Biology, successful completion of or concurrent enrollment in NYS Regents Chemistry

Length: 40 Weeks

Credit: 1 [3 College Credits/ESF Fee \$200.00 or \$75.00 with demonstrated financial need]

Key environmental science themes and critical thinking skills form the basis for classroom and experiential learning activities. Global Environment's interdisciplinary approach reflects our belief that all students, regardless of college or career paths, will benefit from an understanding of the linkage between human social systems and biophysical systems. Students will explore the relationships between their local rural, urban, and suburban communities and the broader global context of environmental change. Opportunities abound for including course topics based on available local and regional resources as well as teacher interest, expertise, and experience. Ultimately, we seek to develop students and citizens who have a solid understanding of science and a sense of wonder and appreciation for the Earth as a system. EFB 120 is a full-year, one credit course. Students have opportunities for day trips to ESF's main and regional campuses, as well as for in-school presentations and demonstrations by ESF faculty, staff, and students.

Note: College credit is available with a fee payable to ESF.

Forensic Science

Prerequisite: Successful completion of Algebra and Regents Living Environment; Juniors/Seniors

Length: 20 Weeks

Credit: ½

This course is designed for students interested in enhancing their observational and deductive reasoning skills. Students will be engaged in problem solving through inquiry-based and long-term

investigative methods, with an emphasis placed on these specialized areas of science. Students will view historical development of scientific research and analyze case studies. Our plan is to use this class as an opportunity to tap into some of our local resources including, but not limited to, the Materials Science Department and Veterinary School at Cornell University, current research projects at SUNY Cortland and Cornell, and the pathology and investigative department of our State Police Department.

Geology

***Prerequisite:* Earth Science**

***Length:* 20 Weeks**

***Credit:* ½**

The course will use local geology for the basis of study in these areas:

- Landscapes and Mapping
- Forces Shaping the Land
- The Rocks Beneath Us
- Building Up the Land
- Learning About the Past from the Land

Because of the connections with local geology, each unit of study will involve a fieldwork component. A final project will involve student research into a specific aspect of our local geology and its relation to the course.

Human Anatomy and Physiology

***Prerequisite:* Biology**

***Length:* 20 Weeks**

***Credit:* ½**

This course will be a challenging exploration of the intricate details of human anatomy. Students will take an in-depth look at human health and nutrition. Students will investigate physiological processes and diseases. Although not a requirement, it helps if students have taken Chemistry.

Meteorology

***Prerequisite:* Earth Science**

***Length:* 20 Weeks**

***Credit:* ½**

This course is designed for those who are interested in understanding weather and how it's changing. Students will start with the history of weather prediction and end with current advances in weather technology. Sections of the course will include: history, instruments, mapping, predictions, storms, climate, and future weather. Emphasis will be on man's role in predicting the weather and how we have changed our climate. Students will be able to produce a daily weather forecast by the end of the semester.

Natural Disasters

***Prerequisite:* Earth Science**

***Length:* 20 Weeks**

***Credit:* ½**

Students will gain a better understanding of the natural world and the natural processes that affect our everyday lives. The course will cover a multitude of topics centering around natural events that have disastrous consequences for life on Earth. Examples of natural events covered will include: earthquakes, volcanic eruptions, hurricanes, tornadoes, floods, and landslides. We will investigate the science behind recent and past events and relate them to human impacts worldwide. Students will be required to give presentations.

Science Fiction I: Supernatural to Natural

Prerequisite: None

Length: 20 Weeks

Credit: ½

This class gets students thinking critically and applying the concepts, theories, and reasoning learned in traditional science classes to study fringe science topics. In this project-based class students will use presentations, readings, discussions, and videos to explore:

- Science fiction and supernatural as a social construct and/or warning
- Science fiction literature and comic books, folklore through contemporary supernatural stories
- Monsters: Cryptozoology (Bigfoot/mermaids) as applies to morphological evolution
- Ghosts: Paranormal psychology as the actual science behind “ghost hunting”
- Aliens: Morphology, Goldilocks planets and how aliens in science fiction are a mirror of humanity

Science Fiction II: The Future is Now

Prerequisite: None

Length: 20 Weeks

Credit: ½

The latest innovations of technology, medicine, or genetics at one time were limited to the minds of great authors and screenwriters; this class explores how technology and society has evolved. In this project-based class students will use presentations, readings, discussions, and videos to explore:

- Science fiction as a social construct and/or warning
- Current science news, technology, and research
- Science fiction literature, movies, television and as the inspiration for many current technologies
- Robotics and Franken-creatures: Science ethics regarding genetic engineering, testing, robots and artificial intelligence, and technology’s effect on humanity as an overall good or bad
- Dystopian vs Utopian science fiction as it relates to current views of our own social and political landscape

Science of Sports

Prerequisite: Algebra, Biology, and Earth Science

Length: 20 Weeks

Credit: ½

Many students have difficulties in the math used in Regents Physics. The Science of Sports allows a student the opportunity to learn about concepts without the math component. Students will use projects to design, construct and analyze theories.

Science Laboratory Management/Research

Prerequisite: AP Biology or Honors Chemistry and permission of teacher

Length: 40 Weeks

Credit: ½

This course is for students who are pursuing a science degree in college. Students will gain “hands on” experience with laboratory procedures and experimental design/execution. Through this course students will gain independence in the lab as they are challenged to think independently.

Senior Thesis

Prerequisite: Concurrent enrollment in Regents or Honors Physics or AP Biology

Grade level: Seniors only

Length: 20 Weeks

Credit: ½

This course is designed for seniors seeking an opportunity to conduct individual scientific research. Students will be paired with a college research scientist who will act as a mentor, allowing students to design and carry out an independent research project. The research project will be presented in a scientific poster and will culminate with a presentation in front of peers, parents, teachers, mentors, and fellow research students.

Morrisville in the High School – Intro to Environmental Science (ENSC 100)

Prerequisite: None

Grade level: Sophomore, junior, and senior

Length: 40 Weeks

Credit: 1 (3 college credits/MSC fee \$283.05)

A dual-credit course with designated high schools to acquaint selected high school students with the basic principles of environmental science. Topics such as soils, water, air, energy, wildlife, IPM, population ecology, forestry and waste management will be covered. Students will design and carry out a long-term project, which will be based on a current environmental issue.

Note: College credit is available with a fee payable to MSC.

SUMMER COURSE OFFERINGS

Marine Science

Prerequisite: Regents or Honors Biology

Length: 1 Week

Credit: ½ - Summer

This course, held during the summer, is open to highly motivated 9th, 10th, and 11th grade students. It includes intensive studies of marine life through laboratory and field work, which take place at a field station on Long Island. Application and selection take place during the spring. A written exam may be required upon return to Homer.

Adirondack Field Studies

Prerequisite: Regents or Honors Biology or teacher permission

Length: 1 Week

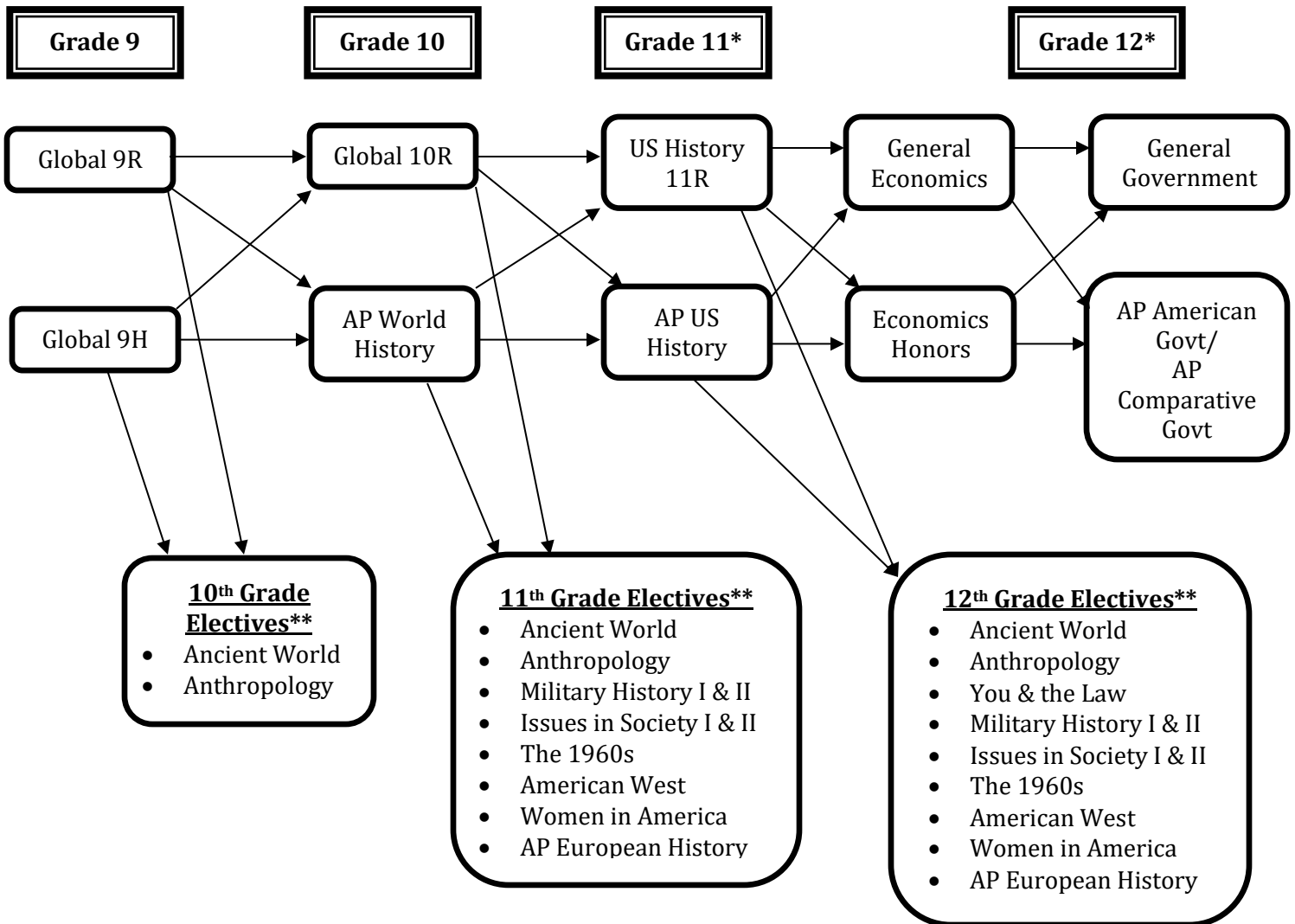
Credit: ½ - Summer

This course, held during the summer, is open to 9th, 10th, and 11th grade students with high interest in the biological sciences. The course includes intensive studies of aquatic and terrestrial environments. Application and selection take place during the spring. This is a rigorous course with a final project required on-site.

SOCIAL STUDIES DEPARTMENT

The Social Studies program has been developed to enable students to better understand the world we live in and the events that have shaped their lives. In order to attain these goals, a mandated four-year curriculum is offered.

Please note: The pathways shown below are typical routes from one course to another. They are not the only ways a student may progress. Please consult with a school counselor for the best choices for you.



**All students are required to take 20 weeks of Government and 20 weeks of Economics. This usually occurs during a student's 12th grade year but can also be fulfilled during the 11th grade year.*

***All electives are 20 week courses except You and the Law, which is a full year course.*

REQUIRED COURSES

Global Studies 9 Regents

Prerequisite: None

Length: 40 Weeks

Credit: 1

This course will be a chronological examination of world cultures, physical setting, and world history from 4000BCE to 1750CE.

Global Studies 9 Honors

Prerequisite: Recommendation from 8th grade teacher

Length: 40 Weeks

Credit: 1

This course will prepare students to take AP World History during their 10th grade year. The first 40% of the AP World curriculum will be covered during the year along with devoting considerable time to the critical evaluation of primary and secondary sources, analysis of historiography (the principles, theories, or methodology of scholarly historical research and presentation), and inquiry into global connections that have shaped our present world. Special emphasis will be given to historical writing through essay and document-based questions (DBQ). The content covered during this year will mirror the content curriculum of the 9th grade Global I course and meet that requirement.

Global Studies 10 Regents

Prerequisite: Global Studies 9

Length: 40 Weeks

Credit: 1

This course will be a chronological examination of world cultures, physical setting, and world history from 1500 to present.

AP World History

Prerequisites: Teacher recommendation

Length: 40 Weeks

Credit: 1

This course will complete preparation of students to take AP World History during their 10th grade year. The remaining 60% of the AP World curriculum will be covered during the year along with devoting considerable time to critical evaluation of primary and secondary sources, analysis of historiography (the principles, theories, or methodology of scholarly historical research and presentation), and inquiry into global connections that have shaped our world. Special emphasis will be given to historical writing through essay and document-based questions (DBQ). Content covered during this year will mirror the content curriculum of the 10th grade Global II course and meet that requirement. All students completing this course are expected to take the College Board AP World History exam in early May. The course's final exam is the Global History and Geography Regents.

United States History and Government Regents

Prerequisite: None

Length: 40 Weeks

Credit: 1

This is a survey course covering the major themes and events in American history and government. Emphasis will be placed on cultural heritage, political systems, and economic history. Foreign relations and the Constitution will also be major topics. All students will be required to take and pass a state exam as a requirement for graduation.

AP United States History

Prerequisite: Recommendation from 10th or 11th grade Social Studies teacher

Length: 40 Weeks

Credit: 1

This course is designed for students who want to take the AP American History test in May. Those who pass the test may receive college credit for American History, thereby removing the requirement for college. The course asks students to use their knowledge of American History to interpret historical materials and to arrive at conclusions on the basis of an informed judgment. Periodic oral reports, exams, short research papers, outside readings, and class participation are all components of the grading process. Students must pass the US History Regents given in June.

Participation in Government

Prerequisite: None

Length: 20 Weeks

Credit: ½

This course will study the American governmental system at all levels: local, state, and federal. It will emphasize the role of the individual in government. Students will examine how government policies are established and what they can do to have their voices heard in the process. They will be required to complete five hours of community projects. Students must pass this course as a requirement for graduation.

Introduction to Economics

Prerequisite: None

Length: 20 Weeks

Credit: ½

This course will examine economics from a global, national, local, and personal aspect. It will emphasize the role of economic conditions and policies on the individual. An introduction to microeconomic and macroeconomic principles will be presented. Additionally, an emphasis will be placed on personal financial literacy. Completion of this course allows the student to meet the 12th grade Economics requirement.

Economics Honors

Prerequisite: Recommendation of 10th or 11th grade Social Studies teacher

Length: 20 Weeks

Credit: ½

This course offers juniors and seniors an advanced curriculum in macroeconomics, viewed through the lens of social issues. Throughout the course we will touch on a variety of topics including economic systems, resource allocation, market structures, economic performance, global trade, Social Security, Medicare, poverty, crime, and pollution. Upon successful completion of this course, students will receive credit for high school economics, a requirement for graduation, as well as credit from TC3 in Economics 101.

AP United States Government and Politics

AP Comparative Government and Politics

Prerequisites: Teacher recommendation

Length: 40 Weeks

Credit: 1

This course is designed to prepare students to take both the AP United States Government and Politics and the AP Comparative Government and Politics exams. Additionally, it will satisfy the state mandated fourth year of government. The course consists of the following:

- The AP course in United States Government and Politics introduces students to an analytical perspective on government and politics in the United States. It includes both the study of general concepts used to interpret U.S. government and politics and the analysis of specific examples. It requires familiarity with various institutions, groups, beliefs, and ideas that constitute U.S. government and politics.

- The AP course in Comparative Government and Politics introduces students to the fundamental concepts used by political scientists to study the processes and outcomes of politics in a variety of country settings. In approaching the study of politics with this perspective, students will gain a better understanding of both the similarities and differences that exist among modern political systems. The AP curriculum focuses on six countries: Great Britain, Russia, China, Mexico, Nigeria, and Iran.

ELECTIVE COURSE OFFERINGS

America's Journey: The 1960s

Grade level: Sophomore, junior and senior

Length: 20 Weeks

Credit: ½

This course is designed to enhance student understanding of some key political and social changes in American history. It is a thematic survey of America during the 1960s. The course will focus on the cultural, political and social events and upheavals that shaped the era.

Military History I

Guerilla Warfare and Counterinsurgency

Grade level: Junior and senior

Length: 20 Weeks

Credit: ½—Fall semester only

This course explores Americans fighting in guerilla wars. It covers selected conflicts beginning with the French and Indian War, and includes the current conflicts in Iraq and Afghanistan. The course centers on study of films, current and historical articles, and class discussion. Each student will read three or four books on guerilla warfare during the semester.

Military History II

Conventional Warfare

Grade level: Junior and senior

Length: 20 Weeks

Credit: ½—Spring semester only

This course covers American infantry, naval, and air units in combat during selected major conflicts in which the United States has participated. The Civil War, World Wars I and II, the Korean Conflict, and the first Gulf War are studied. The course centers on study of films, current and historical articles, and class discussion. Each student will read four books on conventional warfare during the semester.

Issues in Society I

Grade level: Junior and senior

Length: 20 Weeks

Credit: ½—Fall semester only

This course is designed to investigate multiple perspectives to major societal issues such as abortion, world population explosion, genetic engineering, eugenics, and human rights. By using and developing research skills, debate tactics, and open and free discussion, students will analyze all sides of the issues plaguing society while advancing the skills necessary to be successful in advanced education and the workplace.

Issues in Society II

Grade level: Junior and senior

Length: 20 Weeks

Credit: ½ – Spring semester only

This course is designed to continue the investigation into multiple perspectives on major societal issues. This course will cover such issues as censorship, crime and punishment (including the death penalty), racism, social discrimination, and poverty. By using and developing research skills, debate tactics, and open and free discussion, students will analyze all sides of the issues plaguing society while advancing the skills necessary to be successful in advanced education and the workplace.

Introduction to the Ancient World

Grade level: Sophomore, junior and senior

Length: 20 Weeks

Credit: ½

This course is offered to augment the Global History and Geography curriculum. It will go into greater depth in the study of ancient civilization and the transition from Paleolithic to Neolithic Man.

Introduction to Anthropology

Grade level: Sophomore, junior and senior

Length: 20 Weeks

Credit: ½

This new course will introduce students to the study of humankind.

The American West

Grade level: Junior and senior

Length: 20 Weeks

Credit: ½

This is an introductory course that will study the growth and development of the American West as a culture, economy, and society. Americans are fascinated with the idea of the American Frontier; it evokes ideas of liberty and equality, and challenges those who dare to create what did not exist before. The American West is a region that draws diverse people and cultures from around the world. Class will debate and study past, present, and future of this fascinating area.

Women in American History

Grade level: Junior and senior

Length: 20 Weeks

Credit: ½

This elective is designed to enhance student understanding of the role women have played in shaping the nation by surveying the history of American women from the colonial era to the present. It will support the 11th grade U.S. History course.

You and the Law

Grade level: Seniors only

Length: 40 Weeks

Credit: 1

This course is a guide to law that is of practical use in everyday life. The course is designed to provide the student with an understanding of his or her legal rights and responsibilities, knowledge of everyday legal problems, and the ability to analyze, evaluate, and resolve legal disputes. Topics covered include: criminal law, consumer law, family law, housing law, and laws associated with current events.

AP European History

***Prerequisite:* Successful completion of Regents Global History and Geography I, recommendation of Global I instructor, written essay, substantial summer assignments**

***Length:* 40 Weeks**

***Credit:* 1**

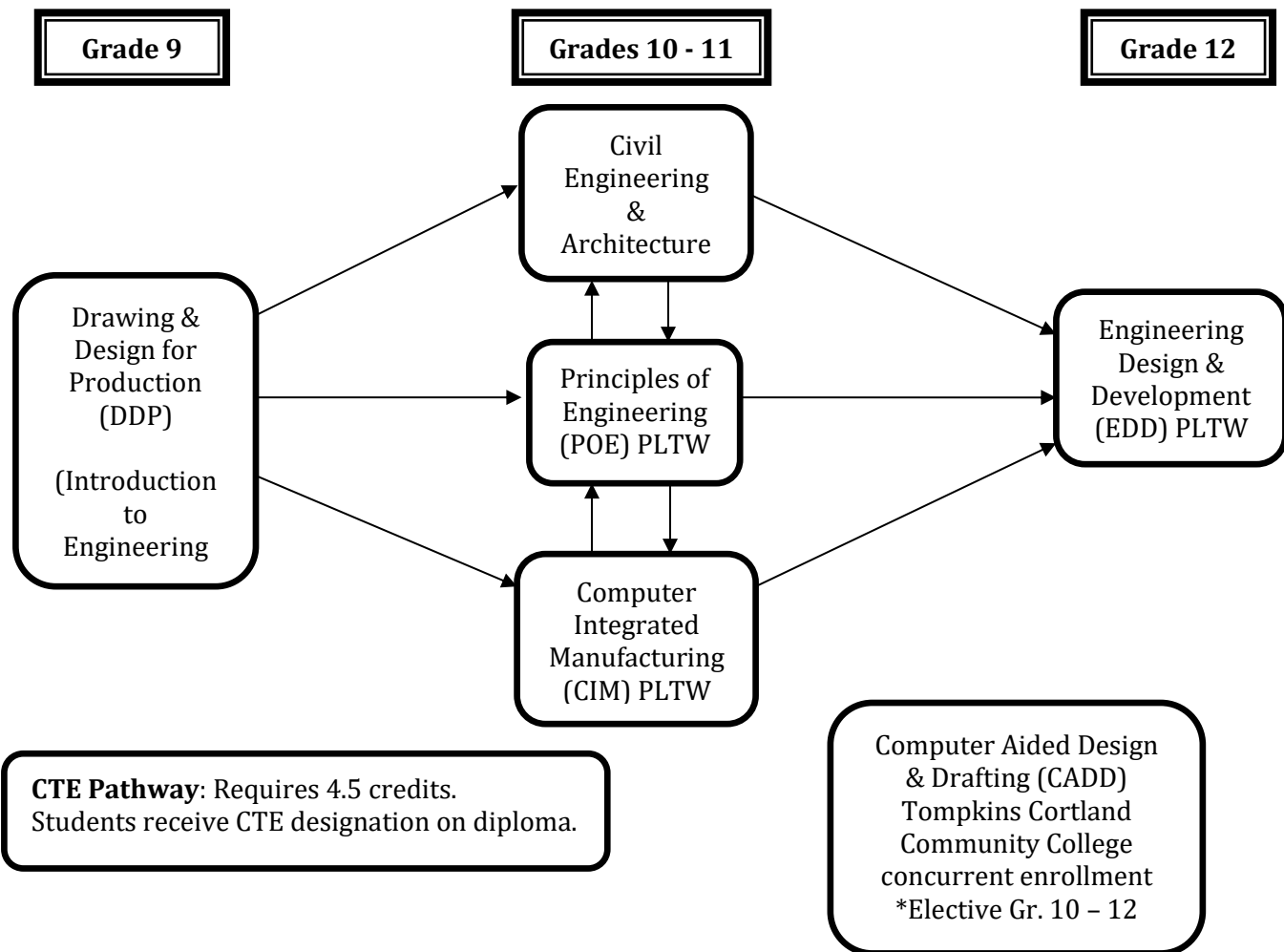
This course is offered as an elective for juniors and seniors. It covers Europe from the Late Middle Ages (c. 1300) to the fall of the Berlin Wall and the USSR (1990) in great breadth and depth. Emphasis is placed on individual, independent reading and writing, and on class participation. All students completing this course are expected to take the College Board AP European History exam in early May.

TECHNOLOGY EDUCATION DEPARTMENT

Homer High School's Technology Education courses offer a broad base of skills training that will prepare the student for a variety of careers. With a focused sequence in Technology Education, students have the means to link their high school curriculum to post-secondary educational programs or employment. High-paying careers in engineering design, architecture, construction, communications, or computer-aided design are all attainable with the right academic preparation and hands-on skills. The district has partnered with Project Lead the Way (PLTW) and Rochester Institute of Technology (RIT) to offer several courses following the PLTW Engineering curriculum. In PLTW Engineering, students engage in open-ended problem solving, learn and apply the engineering design process, and use the same industry-leading technology and software that are used in the world's top companies. Students investigate a variety of topics, which gives them an opportunity to learn about different engineering disciplines before beginning post-secondary education or careers. Students may elect to obtain college credit for RIT upon successful completion of the course and the PLTW/RIT course assessment.

A fee of \$250.00 is required to obtain the RIT credit.

Please note: The pathways shown below are typical routes from one course to another. They are not the only ways a student may progress. Please consult with a school counselor for the best choices for you.



Courses that follow the PLTW curriculum are noted with a **PLTW** in the listing below.

DDP - Design and Drawing for Production PLTW

NOTE: This course satisfies the Art/Music and Technology requirement

Length: 40 Weeks

Credit: 1

DDP is an introductory course, which develops student problem-solving skills, with emphasis placed on developing a digital 3D model or actual prototype of the students' design. The course will follow the PLTW Introduction to Engineering Design curriculum. Students dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3D modeling software, and use an engineering notebook to document their work.

Principles of Engineering PLTW

Prerequisite: Design and Drawing for Production

Length: 40 Weeks

Credit: 1

Through problems that engage and challenge, students explore a broad range of engineering topics including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research and design while learning strategies for design process documentation, collaboration and presentation.

CIM - Computer Integrated Manufacturing PLTW

Prerequisite: Design and Drawing for Production, Principles of Engineering (could be concurrent)

Length: 40 Weeks

Credit: 1

Manufactured items are part of everyday life, yet most students have not been introduced to the high-tech, innovative nature of modern manufacturing. This course illuminates the opportunities related to understanding manufacturing. At the same time, it teaches students about manufacturing processes, product design, robotics, and automation.

CEA - Civil Engineering and Architecture PLTW

Prerequisite: Design and Drawing for Production preferred

Length: 40 Weeks

Credit: 1

Students learn important aspects of building and site design and development. They apply math, science, and standard engineering practices to design both residential and commercial projects and document their work using 3D architecture design software.

CADD – Computer Aided Design and Drafting (dual credit with Tompkins Cortland Community College available)

Prerequisite: DDP with teacher permission

Length: 40 Weeks

Credit: 1 (2 college credits)

This course will concentrate on concepts learned in DDP and apply the concepts to the computer. Students will learn to draw gears, gaskets, molds, and other mechanical devices on the computer. This course uses the Tompkins Cortland Community College syllabus and brings a college-level course directly into the high school. AutoCAD is the standard today. This course is for students interested in engineering, drawing, designing, interior decorating, architecture and construction.

EDD - Engineering Design and Development PLTW

Prerequisite: Teacher permission

Length: 40 Weeks

Credit: 1

The knowledge and skills students acquire throughout PLTW Engineering come together in EDD as they identify an issue and then research, design, and test a solution, ultimately presenting their solution to a panel of engineers. Students apply the professional skills they have developed to document a design process to standards, completing EDD ready to take on any post-secondary program or career.

WORLD LANGUAGES DEPARTMENT

The high school world language program is designed to meet the New York State Regents standards. Language Level II is a continuation of the junior high Level I (grades 7 and 8). Language Levels II and III are called “intermediate” and cover material for success in the local Regents comprehensive exam taken at the end of the year. Levels IV and V can result in a student taking exams to earn college credits.

Homer offers a choice of two modern languages – French and Spanish. The program begins in junior high, currently at grade 7. As students conclude their two years of world language study at the end of grade 8, they will take a local World Language Proficiency exam. Upon passing the exam, and passing 7th and 8th grade language classes, students who plan to earn a Regents Diploma with Advanced Designation may begin at Level II in 9th grade. They could complete Level III in their sophomore year.

High school students must study one world language for the Advanced Regents Diploma, but are welcome to study another if their schedule allows. Also, when the language teachers and students find it possible, exchange and travel opportunities are offered. In addition, the department maintains an International Club composed of students who study world languages. The club sponsors various trips and activities and raises funds to support this travel, along with student scholarships and awards. Students may wish to consider a year abroad as an exchange student. The district cooperates with the local Rotary International club to assist students interested in an outbound exchange. Students and parents interested in outbound exchange should begin discussions with the school and Rotary as early as possible.

COURSE OFFERINGS

French I, Spanish I

***Prerequisite:* None**

***Length:* 40 Weeks**

***Credit:* 1**

This course is offered in high school to those students who want to study a second world language at the beginning level or who did not successfully complete their requirements at the end of 8th grade.

French II, Spanish II

***Prerequisite:* Passing grade 8 world language and local proficiency exam**

***Length:* 40 Weeks**

***Credit:* 1**

Level II is a continuation of the skills development of Level I and the beginning of the “intermediate” level. More in-depth information is given with greater emphasis on speech patterns and correct structures. Cultural enrichment is an on-going part of this course. Readers and authentic materials are used in a variety of ways.

French III, Spanish III

***Prerequisite:* Level II**

***Length:* 40 Weeks**

***Credit:* 1**

Level III, the final year of the intermediate level, students must pass the course as well as the locally developed final exam with a 65 or higher in order to meet the qualification for the Regents diploma with Advanced Designation. The course involves review of all grammar points and structures, as well as introduction of more advanced ones, with equal emphasis on the skills of listening, speaking, reading, and writing. Video programs, texts, workbooks, language readers, and authentic materials are used. Cultural enrichment is emphasized. Credit will be given for Tompkins Cortland Community College French 102 upon successful completion of French III.

French IV, Spanish IV

***Prerequisite:* Level III**

***Length:* 40 Weeks**

***Credit:* 1**

Level IV studies are considered advanced level. Methods of teaching include formal discussion, reading, and writing. Surveys of foreign literature, history, and cultures enhance the course. Oral reporting, role-playing, letter and composition writing, and research will be frequent. A study of more advanced grammar and language is included.

AP French Language and Culture

***Prerequisite:* Level IV and teacher recommendation**

***Length:* 40 Weeks**

***Credit:* 1**

This course emphasizes communication by applying the interpersonal, interpretive, and presentational modes of communication in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

AP Spanish Language and Culture

***Prerequisite:* Level IV and teacher recommendation**

***Length:* 40 Weeks**

***Credit:* 1**

This course emphasizes communication by applying the interpersonal, interpretive, and presentational modes of communication in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).



Career and Technical Education (CTE) Endorsement



Homer High School offers CTE-endorsed programs in Business Entrepreneurship and Management, Engineering, and Agriculture. Offering career and technical education programs has raised the quality and rigor of courses that prepare students for employment and post-secondary study. Approved programs lead to an industry-recognized credential or certificate at the post-secondary level, or an associate or baccalaureate degree, and offer:

- an opportunity to apply academic concepts to real-world situations;
- preparation for industry-based assessments or certifications, the opportunity to earn college credit or advanced standing while still in high school; and
- work-based learning opportunities where students demonstrate mastery of skills essential in the workplace.

Career and Technical Education (CTE) Courses at Homer High School

The courses listed below are offered in the area of Career and Technical Education. A description of the course can be found on previous pages under the related subject area.

Agricultural Courses:

Animal Science	½ credit
Plant Science	½ credit
Environmental Science	1 credit
Ag, Food and Natural Resources	1 credit
Agriculture Research	1 credit

Business Courses*:

Business Math	1 credit
College and Career Ready	½ credit
Entrepreneurship	½ credit

Must take at least two of the following:

Business Computer Applications (B.C.A.)	½ credit
Business Management	½ credit
Sports and Entertainment Marketing	½ credit

Technology and Engineering Courses:

Design and Drawing for Production – PLTW	1 credit
Principles of Engineering – PLTW	1 credit
Computer Integrated Manufacturing – PLTW	1 credit
Civil Engineering and Architecture – PLTW	1 credit
Computer Aided Design and Drafting (dual credit with Tompkins Cortland Community College)	1 credit
Engineering Design and Development – PLTW	1 credit

Work-Based Learning by Internship/Job Site

Career Connections	½ to 1 credit
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*Completion of Business courses noted, along with Career Connections, fulfills the requirements to receive a CTE Endorsement for Business Entrepreneurship and Management.

BOCES CAREERS AND TECHNICAL EDUCATION **COURSE OFFERINGS AT CORTLANDVILLE CAMPUS**

Junior year students have the opportunity to attend BOCES Career and Technical Education courses in the following areas:

- Automotive Collision Technology
- Automotive Technology (National Automotive Technicians Education Foundation)
- Computer Technology
- Construction Technology
- Cosmetology
- Culinary Arts
- Early Childhood
- Graphic Communication
- Health Occupations Technology
- Heavy Equipment Repair, Operation & Diesel Technology
- Physical Therapy
- Welding Technology

Students enrolled in these courses are also required to take Data Analysis (Math) and Scientific Inquiry (Science) provided at BOCES for one credit per year. Please refer to the OCM BOCES Credit Recommendations Sheet for further information or contact the Career and Tech Ed Office at (607) 758-5262.

Automotive Collision Technology

Two years/3 credits per year

(Science junior year, Math senior year)*

Automotive Collision Technology is a two-year program in which students learn the essential skills needed to begin a career in the auto body and collision industry. As specialists in the automotive industry, Automotive Collision Technology students gain real-world and hands-on experience working in an industry-standard collision lab setting. Students will learn the fundamentals of vehicle refinishing, metalwork, unitized body and frame alignment, painting and finishing, welding, plastics repair, body repair/replacement, cost estimation and customer service skills. Students are offered internships and the opportunity to earn a Career and Technical Endorsement on their diploma by successfully passing an industry-standard technical assessment.

Automotive Technology NATEF

Two years/3 credits per year

(Math junior year, Science senior year)*

Automotive Technology is a two-year program designed to provide students with basic mechanical knowledge and skills. This Automotive Service Excellence (ASE) program is certified by the National Automotive Technicians Education Foundation (NATEF). It teaches skills through a combination of theoretical study and hands-on lab work, including the repair of brake systems, engine performance diagnosis, suspension and steering, electronic control systems, and on-board computerized engine control systems on automobiles and light trucks. This nationally recognized and state-certified program is the first step in preparing an individual for a career in the automotive repair field. Students are offered internships and the opportunity to earn a Career and Technical Endorsement on their diploma by successfully passing the industry-standard ASE NATEF technical assessment.

Computer Technology Program

Two years/3 credits per year

(Science junior year, Math senior year)*

The Computer Technology program is designed to prepare students for the ever-changing world of computer and information technology. Through a combination of theory and hands-on lab work, this two-year, Cisco-certified program provides students with the essentials of computer repair and support in the first year, before transitioning to the fundamentals of networking in year two. As the first step in the computer technology career path, the program gives students the opportunity to earn the industry-recognized Cisco Career Certification, which also serves as a gateway to the industry-recognized CCNA Certification. Moreover, the CompTIA A+ Certification is another key offering that helps fulfill a comprehensive program for students who are preparing for entry-level work or have post-secondary aspirations. Students are offered internships and the opportunity to earn a Career and Technical Endorsement on their diploma by successfully passing the industry-standard technical assessments.

Construction Technology

Two years/3 credits per year

(Math junior year, Science senior year)*

The two-year Construction Technology program teaches students the essential skills needed to begin a career in the building and construction trades. Through the construction of a new house, students will gain real-world knowledge and hands-on experience in the fundamental components of carpentry, drywall, painting, framing, roofing, floor installation, door and window installation, blueprint reading, siding, electrical wiring, plumbing, proper tool use and OSHA safety training. Students will develop and demonstrate integrated academics and employability skills through class activities, projects, a live clinic, community service and professional development. Students are offered the opportunity to earn a Career and Technical Endorsement on their diploma by successfully passing an industry-standard technical assessment.

Cosmetology – Appearance Enhancement Profession

Two years/3 credits per year

(Science junior year, Math senior year)*

Cosmetology is a two-year program that instructs students in the theory and practical skills necessary to prepare them for a career in the cosmetology field and/or post-secondary education. Students are provided with hands-on training and experience to pursue employment opportunities in such roles as cosmetologists, nail technicians, estheticians, hair stylists, salon managers and small-business owners. As part of the required 1,000 hours of instruction, students are offered clinicals and internships. In addition, students have the opportunity to apply for a New York State Cosmetology license and earn a Career and Technical Endorsement on their diploma by successfully passing a technical assessment.

Culinary and Pastry Arts

Two years/3 credits per year

(Math junior year, Science senior year)

Culinary and Pastry Arts is a hands-on food preparation program that provides students with broad exposure to the science of cooking and the art of pastry design. Through an academic partnership with the National Restaurant Association, students will develop culinary and pastry skills learning the ProStart curriculum in food production, dining etiquette, customer service, food safety and sanitation. As part of the required 1,000 hours of instruction over a two-year period, students are provided with internship experiences and the opportunity to earn a Career

and Technical Endorsement on their diploma by successfully passing the industry-standard ProStart exams and NOCTI performance assessment.

EARLY CHILDHOOD EDUCATION

Two years/3 credits per year

(Math junior year, Science senior year)

The Early Childhood Education program is for students who want to pursue a career working with young children. Students learn about the characteristics, needs and behaviors of 3- and 4-year-olds and study best practices on how to guide and teach them in a pre-school setting. Each high school student in the program has the opportunity to participate in all phases of operating the pre-school. Students are responsible for the planning, preparation and presentation of activities for young children, functioning as student teachers under the supervision of a certified teacher. Students are offered internships and the opportunity to earn a Career and Technical Endorsement on their diploma by successfully passing an industry-standard technical assessment.

GRAPHIC COMMUNICATIONS

Two years/3 credits per year

(Science junior year, Math senior year)

Graphic Communications is a two-year, project-based program for students who want to develop 21st-century skills in graphic design and artistry. Macintosh computers and Adobe software are featured, as are projects in the form of multimedia advertisements, logo design, business cards, computer illustrations, digital imaging, multimedia and web design. Field trips to advertising agencies, printing companies and colleges are embedded into the program. Dual-credit courses are an integral component of the program and are offered through Tompkins Cortland Community College, where students may earn up to six credits in Art and Communications. Students are offered internships and the opportunity to earn a Career and Technical Endorsement on their diploma by successfully passing an industry-standard technical assessment.

Health Occupations Technology

Two years/3 credits per year

(Math junior year, Science senior year)

Health Occupations is a two-year program offering theory and practical experience for students interested in the medical and health care professions. Students are introduced to multiple facets of long-term care, basic nursing procedures, patient rights, ethical practices, medical terminology and body systems. Students will have the opportunity to earn a New York State license as a certified nursing assistant, CPR and First Aid certification. This training includes a minimum of 108 hours in a long-term care clinical setting. Students are offered internships and the opportunity to earn a Career and Technical Endorsement on their diploma by successfully passing an industry-standard technical assessment.

Heavy Equipment Repair, Operation & Diesel Technology

Two years/3 credits per year

(Math junior year, Science senior year)

Located at Morey Towing & Recovery in Homer, the two-year Heavy Equipment Operation & Diesel Repair Technology program is designed to offer students essential skills in the maintenance and repair of heavy equipment and heavy-duty diesel trucks using the latest techniques and computerized diagnostic equipment. Students will gain daily practical experience working with a variety of engines and equipment that will prepare them for employment opportunities or furthering their education at college or technical school. Students

may be eligible to earn industry certifications in safety training and equipment operation. Students may earn a Career and Technical Education endorsement on their diploma by successfully passing an industry-standard technical assessment.

Physical Therapy Professions

Two years/3 credits per year

(Science junior year, English 12 senior year)

This two-year program is designed for highly motivated students who are interested in gaining a post-secondary edge in pursuing a career as a physical therapist, a physical therapist assistant or a practitioner in a similar field. Students will study the fundamentals of the physical therapy profession, including the elements of movement, evaluation, treatment and anatomy and physiology. We have post-secondary partners that offer on-site dual-credit courses, allowing students to begin building their college transcript. Students also will be able to shadow physical therapy professionals in the field. Students may earn a Career and Technical Education endorsement on their diploma by successfully passing an industry-standard technical assessment.

Welding Technology

Two years/3 credits per year

(Science junior year, Math senior year)

Skilled welding technicians have multiple employment options and are a vital link in the manufacturing, construction and facilities maintenance industry. This two-year program provides instruction in arc welding, resistance welding, brazing and soldering, cutting, heat-treating and metallurgy. Students study electrical systems, power sources, various welding technologies, welding systems, print interpretation and measurement, as well as the use and interpretation of visual symbols related to welding. Students will gain technical skills and experience that will prepare them for entry-level employment or advanced placement in post-secondary education. Work-based learning sites are developed in the second year to allow the opportunity to intern at many local businesses. Students also have the opportunity to earn industry-recognized AWS certifications and a Career and Technical Endorsement on their diploma by successfully passing an industry-standard technical assessment.

Data Analysis

1 credit

Data Analysis and Statistics/Business Math emphasizes content and the development of skills in mathematics as they apply to the workforce area that the student has selected. Students will learn enhanced problem solving, review skills, and gain valuable experience in related technical applications of mathematical skills. Data Analysis is a requirement for all students.

Scientific Inquiry and Research

1 credit

Scientific Inquiry and Research stresses content and skills development in science as they apply to the workforce area that the student has selected. Students will use various applications of scientific methods and skills, and gain valuable experience in related technical applications of science. This course is a requirement for all students.

New Vision Environmental Science

One year – seniors only

Application and interview required

New Vision Environmental Science is a one-year program offered to highly motivated high school seniors. During the program, located at Lime Hollow Nature Center, students will explore environmental issues in a real-world setting on nearly 430 acres consisting of forests, fields, streams, bogs, ponds, flora and fauna, with access to numerous trails. As the classroom moves from outdoors to indoors, students will learn in a state-of-the-art environmental education center as they conduct research and study environmental topics in depth. Topics include forestry, fish, wildlife, maple production, environmental issues, soil, water, land use and outdoor recreation. Students interact with professionals in the field and use time in the classroom to analyze current trends in careers. Class visitations by professionals in the field, community service projects and field trips are integral components of the program. Students will also fulfill their English 12, Participation in Government and Economics requirements toward graduation.

New Vision Medical Professions

One year – seniors only

Application and interview required

New Vision Medical Professions is a one-year program offered to highly motivated high school seniors. In this health care field immersion program, students will explore related career pathways as they participate in scheduled rotations at local health care facilities including Crouse Hospital and Cortland Regional Medical Center. Students will experience the medical profession firsthand, working with physicians, nurses and other health professionals. Through a combination of research and hands-on projects, students will learn about medical ethics, patient rights, human anatomy and physiology, governmental regulations and health careers. Students will also earn CPR certification and fulfill English 12, Participation in Government and Economics requirements toward graduation.

Eligibility requirements for all New Vision programs: Interested students must be in their senior year of high school, in good academic standing and on target with all graduation requirements. Eligible candidates should exhibit self-motivation, enthusiasm and maturity, and must be willing to work both independently and as a team member in diverse settings.

AP – ADVANCED PLACEMENT PROGRAM

AP is a rigorous academic program for highly motivated students. It offers college-level course work and exams for the high school student. It provides those students with the opportunity to earn college credit or placement. AP is accepted by more than 3,600 colleges and universities worldwide for college credit, advanced placement, or both on the basis of successful AP exam grades. Each AP course has a corresponding exam that is administered in May. The 2019 exam fee is \$94.00 (waivers are available).

The following AP exams are approved for administration:

1. Biology
2. Calculus AB
3. Calculus BC
4. Comparative Government and Politics
5. English Language and Composition
6. English Literature and Composition
7. European History
8. French Language and Culture
9. Music Theory
10. Spanish Language and Culture
11. Studio Art
12. United States Government and Politics
13. United States History
14. World History

For more information about AP courses and exams:

www.collegeboard.org/apstudents

CLEP – COLLEGE LEVEL EXAMINATION PROGRAM

CLEP is another rigorous College Board program that allows students to demonstrate mastery of college-level material in introductory subjects and earn college credit. More than 2,900 colleges and universities have CLEP credit and/or placement policies. Students in Level V World Language will have the opportunity to prepare for the CLEP exam.