



Lake Shore Curriculum Guide

2022-2023

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Academic

NYS Core Curriculum Requirements

Required Courses	Regents Diploma	Advanced Regents Diploma
English	4 credits	4 credits
Social Studies	4 credits	4 credits
Mathematics	3 credits	3 credits
Science	3 credits	3 credits
Health	.5 credit	.5 credit
The Arts	1 credit	1 credit
World Languages	1 credit	3 credits*
Physical Education	2 credits	2 credits

Lake Shore expects all students to take a minimum of 6.5 courses annually

EXAMINATIONS – All Regents exams must be passed with a score of 65% and above

Course Examinations	Regents Diploma	Advanced Regents Diploma
RE English	√	√
RE Mathematics	√	√
2nd RE Mathematics		√
3rd RE Mathematics		√
RE Global History	√	√
RE US History	√	√
RE Science	√	√
2nd RE Science		√
World Languages	**	√***

* = To earn the advanced designation, the student must complete one of the following: A Language Other Than English (3 credits), Career Technical Education Sequence (5 credits), or the Arts (dance, music, theatre and visual arts (5 credits), Business (5 Credits), Technology (5 Credits) and Family and Consumer Sciences (5 Credits).

** = Students who complete Checkpoint A and one unit of study in a single language other than English no later than the end of 8th grade must pass the second language proficiency exam in order to earn one credit toward the high school diploma.

*** = Students taking a sequence of not less than 5 credits in career and technical education (CTE) or the arts may substitute another 3 credit or 5 credit sequence in place of the 3 credits in a language other than English.

Note: Course selections vary from year to year

Diplomas

Advanced Regents Diploma awarded with Honor - Recipients must earn an **average score** of 90 percent or better on Regents examinations in Social Studies, English, Mathematics, Science, Foreign Languages, etc.

Advanced Regents Diploma awarded with Mastery in Mathematics and/or Science – Recipients must pass three commencement examinations with **a score of 85 or better** in mathematics and/or science.

Advanced Regents Diploma - Recipients must complete all New York State High School Diploma requirements while studying at a Regents level including passing Regents examinations.

Regents Diploma – Recipients must complete all New York State High School Diploma requirements while studying at a Regents level including passing all required Regents examinations.

Regents Diploma awarded with Honor - Recipients must earn an **average score** of 90 percent or better on Regents Examinations in Social Studies, English, Mathematics, Science, Foreign Languages, etc.

New York State High School Diploma – Recipients must complete all New York State High School course requirements and pass required New York State tests.

Skills and Commencement – This is awarded to Special Education students classified by the Committee on Special Education who meet the educational goals established for them by the committee.

Report Card Average

Student grades will be issued quarterly. Report cards are a summary of achievement. Subject achievement is denoted by a numerical grade with 65 being the minimum passing grade. Individualized teacher comments may be denoted on the report card.

Honor / Merit Roll

Honor and Merit rolls are published quarterly. The following averages are required for honor and/or merit rolls:

Merit Roll	85 - 89.99 percent
Honor Roll	90 - 100 percent

Class Rank / Course Weight Value

High School Courses – 1.0 weight value
Advanced Studies, Honors Courses- 1.04 weight value
AP Courses – 1.06 weight value

Class rank is a way to compare a student's grades to those of their classmates. At Lake Shore, students are given a number ranking based on their GPA. Class rank is weighted based on all courses taken. Honors and AP courses hold a higher weight and therefore contribute more profoundly to GPA. Class rank is one criteria colleges use to determine an applicant's academic abilities.

College Level Courses

Please note, there are additional costs associated with Advanced Placement and Advanced Study Courses.

Advanced Placement

Advanced Placement Courses gives students the chance to tackle college-level work while they're still in High School and earn college credit and placement.

*Student can elect to receive college credit through Niagara University in place of the AP Exam

Course	AP Score	College Credit
AP U.S. History	College Credits determined by a score of 3 or better	Varies
AP Chemistry	College Credits determined by a score of 3 or better	Varies
AP English Literature	College Credits determined by a score of 3 or better	Varies
AP Biology	College Credits determined by a score of 3 or better	Varies
AP Calculus	College Credits determined by a score of 3 or better	Varies
AP Music Theory	College Credits determined by a score of 3 or better	Varies
AP Physics *	College Credits determined by a score of 3 or better	Varies
AP Computer Science	College Credits determined by a score of 3 or better	Varies
AP Studio in Art 2D/3D	College Credits determined by a score of 3 or better	Varies
AP Human Geography	College Credits determined by a score of 3 or better	Varies
AP World History	College Credits determined by a score of 3 or better	varies

Advanced Studies Program

The Advanced Studies Program is an opportunity for high school students to enroll in college courses and receive college credit. The program is open to all high school juniors or seniors of average or better academic ability (Sophomore students may be recommended by their teacher or school counselor.)

Advanced Studies Program-SUNY Erie-Academy of Finance

Course	College Credits
Microsoft Office –DA 106	3 Credits
Accounting-BU 121	4 Credits
BEEP-GS111	3 Credits

Advanced Studies Program-Hilbert College

Course	College Credits
Spanish 5	3 Credits
German 5	3 Credits
French 5	3 Credits
English 12 Honors EN110	3 Credits

Advanced Studies Program-Niagara University

Course	College Credits
Physics	8 Credit

Advanced Studies Program-SUNY Erie

Course	College Credit
College Calculus MT 175	4 Credits
DDP-DF 109	3 Credits
CAD-DF 108	3 Credits
ADV CAD-DF 108&109	6 Credits
Video Production I & II-TE 222	4 Credits
Photoshop-GA 131	2 Credits

NCAA Approved Courses

English
AP Literature
English 10
English 10 Honors
English 11
English 11 Honors
English 9
English 9 Honors
Poetry and Creative Writing 12
Public Speaking /College Composition 12

Social Studies
AP US History
AP Human Geography
AP World History
Economics
Global History 10
Global History 9
Introduction to Psychology
Introduction to Sociology
Participation in Government
Seneca-Iroquois History
US History
US History Honors

NCAA Approved Courses

Mathematics

Algebra
Algebra 2
Algebra FA
Algebra Honors
AP Calculus
College Calculus
Exploring Computer Programming
Geometry
Honors Geometry
Geometry FA
Honors Algebra 2
Pre Calculus
AP Computer Science

Science

AP Biology
AP Physics 1
AP Chemistry
Chemistry R
Earth Science R
Earth Science R Honors
Exploring Diseases
Environmental Science
Forensics
Living Environment Biology R
Anatomy and Physiology of the Human Body System
Human Evolution /Human Origins
Physics R

LOTE

World Language courses, Levels 1-5 are NCAA Eligible
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English

Electives and specialty courses in core academic areas will run based on course enrollment

Course Name	Course Number	Weeks / Credit	Grades	Prerequisite
Freshman Seminar	9000	40/.5 (meet alternate days)	9	English 8
English 9	ENG1110	40/1	9	English 8
English 9 Honors	ENG1111	40/1	9	Recommendation based upon 8th grade course work
English 10	ENG1122	40/1	10	English 9
English 10 Honors	ENG1224	40/1	10	English 9 Honors
English 11	ENG1130	40/1	11	English 10
AP Literature	ENG1138	40/1	11	English 10 Honors
Film Study 12 Sports Literature	ENG1125 ENG1125A	20/.5 20/.5	12	Prerequisite English 11
Lyrics & Literature Poetry & Creative Writing 12	ENG1196A ENG1196	20/.5 20/.5	12	Prerequisite English 11
Public Speaking College Composition	ENG 1224A ENG1224H	20/.5 20/.5	12	Prerequisite English 11
SAT Prep—English	9994	20/.5	10—12	None

Freshman Seminar .5 Credit

This seminar is a mandatory ELA elective that coincides with the objectives set in *The Lake Shore Freshman Academy*. In the *Lake Shore Freshman Seminar*, students will learn basic study, social, organization and life skills that are essential in order to be successful in and after high school. This course is designed to be a positive, hands-on and collaborative environment where students will work together to foster professional communication (verbal and written) skills that will be applied in the classroom, at home

English 9 1 Credit

The purpose of this course is to immerse students in full-length literature, focusing on the use of literary elements by authors and the development of themes over longer narratives. Students will be introduced to poetic forms, the fundamentals of research, and writing for clarity, purpose and accuracy. Students will read and analyze a range of novels, poetry and shorter texts. Grade 9 begins preparation for the ELA Regents Exam by focusing on listening skills and informational writing.

English 9 Honors 1 Credit

The purpose of this course is to bridge students from young adult literature into the literary canon, laying the foundation for success throughout the Honors/AP program. Students will develop critical thinking and writing skills, conduct self-directed research, and read a wide range of sophisticated literature, learning to apply a variety of literary techniques to these discussions. Students will focus on writing with purpose and clarity. Students will read and analyze at least six full-length literary works, in addition to a wide range of poetry and other shorter works.

English 10 1 Credit

The purpose of this course is to further develop skills introduced in English 9. Reading and studying literature of recognized merit, students will develop critical reading, research and writing skills, focusing on literary analysis of more sophisticated texts. Students will read and analyze a range of novels, poetry and shorter texts. Grade 10 continues preparation for the ELA Regents Exam by adding critical interpretation to writing skills achieved in Grade 9.

English 10 Honors 1 Credit

The purpose of this course is to encourage students to examine literature both more carefully and more critically. Students will read a variety of college-level texts, applying a wide range of sophisticated literary elements to their discussion and understanding of these works. Students will compose extended responses of greater than 5 pages, in addition to many shorter analysis papers, individual and group presentations. Students will read and analyze at least six full-length literary works, in addition to a wide range of poetry and shorter texts.

English 11 1 Credit

The purpose of this course is to encourage students to seek mastery of skills introduced in English 9 and 10, reading and analyzing full-length literature of recognized merit. Students will hone critical reading, research and writing skills, focusing on literary and comparative analysis of sophisticated texts to complete their preparation for the ELA Regents Exam. Students will read and analyze a range of novels, poetry, and shorter texts. Students will take the English Language Arts Regents Exam during the English

AP Literature 1 Credit

The purpose of this course is to deepen the study of literature that students began in English 9 and English 10 Honors. Students will read and analyze at least eight full-length novels or plays, in addition to a wide range of poetry and short stories, as part of a broad chronological study of major movements and literary works in British literature from the 1600's to the present. The

In order to earn English 12 credit, students must take two English 12 courses that are each one semester.

College Composition .5 Credit

The purpose of this course is to encourage students to examine writing from a rhetorical viewpoint. In this college-level class, students will engage with literature in what will be a new way, for most, as they study the “how” of language as opposed to a primary focus on the “what”. Students will examine the intended purpose or the writer, and identify the skills and techniques the writer uses to achieve that purpose. While the course mostly focuses on non-fiction, students will study literature that spans various regions and time periods, and within an array of genres, responding in writing as well as through debate, discussion, and presentation. A documented research paper is required. **Seniors with teacher recommendation may take for English 12 credit. Students enrolled in this course have the opportunity to earn college credits for EN 101 (College Writing) through the**

Film Study 12 .5 Credit

The purpose of this course is to encourage students to view and analyze film as a form of literature, looking at film as theater, as a reflection of society, and as a manipulation of society. Students will be expected to write and think critically. Students will view and discuss at least two films and several shorter clips, discussing their literary value, theatrical components and the societal issues they present. Students will read novels that have been adapted to film, complete a research project, and read and analyze movie reviews.

Lyrics and Literature 12 .5 Credit

In this English course preparing students for college and careers beyond high school, students will study a wide range of music, examining song lyrics through the lens of the creative writer. Students will compare and contrast various artists and genres and consider their impact on society. They will also complete one research project.

Poetry and Creative Writing 12 .5 Credit

In this course we will be preparing students for college and careers beyond high school, students will examine a wide range of creative writing, exploring the writing process (from draft through publication) and examining the full range of literary elements from the perspective of the writer. Students will develop an extensive portfolio of original literary pieces. Students will complete one major research project.

Sports Literature 12 .5 Credit

In this course preparing students for college and careers beyond high school, students will study a variety of fiction and non-fiction works, focusing on the portrayal of athletes and athletics from varied perspectives. Students will hone their skills in narrative and descriptive writing through composing their own sports literature . Students will complete one research project.

Public Speaking .5 Credit

Public Speaking for the Professional World prepares students with the many presentation skills necessary for the professional and post-high school environment. Specifically, students will learn how to outline, write, practice and present multiple thematic and extemporaneous speeches and presentations using the latest forms of technology for the college/business world on various topics and perspectives. Students will learn how to constructively critique and analyze both their own work and presentations, and speeches delivered by their peers and professionals alike through written and verbal analysis. In addition, students will learn how to properly research and debate controversial and contemporary world issues using standard college-debate outlines and procedures. They will learn, practice and apply college-level vocabulary, English grammar and punctuation to enhance their writing and presentation skills. Finally, students will create a virtual documentary incorporating written, technological and verbal presentation skills to be shown to professionals as a culminating assessment.

SAT Prep—English .5 Credit

English is scheduled on alternate days with SAT Prep--Math. This one semester course prepares students for the SAT, which they will take near the end of the semester.

Social Studies

Electives and specialty courses in core academic areas will run based on course enrollment

Course Name	Course Number	Weeks / Credit	Grades	Prerequisite
Global History 9	SOC1212	40 / 1	9	Social Studies 8
Global History 9 Honors	SOC1212H	40/1	9	Teacher Recommendation
Global History 10	SOC 1222	40/1	10	Global History 9
AP World History	SOC8030	40 / 1	10	Teacher Recommendation
U.S. History and Government	SOC1232	40 / 1	11	Global History and Geography I and II
AP US History	SOC1226AP	40/1	11-12	Teacher/Counselor Recommendation
AP Human Geography	SOC8006	40/1	10-12	None
Participation in Government	SOC1244	20 / .5	12	None
Economics	SOC1246	20 / .5	12	None
Introduction to Sociology	SOC1252	20 / .5	11-12	None
Seneca Iroquois History	SOC529	40 / 1	9-12	None
Native American Culture through Film	SOC1253	40 / 1	11-12	Taken or currently taking U.S. History
Leadership in Action***	0961	40 / 1	10-12	Teacher Recommendation
Introduction to Psychology	SOC9130	20/.5	11-12	None

***Elective Credit

Global History 9 1 Credit

This is a NYS Regents Course. Curriculum units begin in Ancient History to the 1700's. It is the first year of a two-year course of study. During their sophomore year, students study Global History and Geography II. At the conclusion of the two-year course, students will take a Regents Examination covering the content and skills from both years. The units of study covered in the students' freshman year are Introduction to Global History, the Ancient World, Expanding Zones of Exchange and Encounter, Global Interaction, and the Age of Absolute Monarchs. The study of the geography of the world is an integral part of each unit in the course.

Global History 9 Honors

This is an advance level Global Studies 9 course. Teacher recommendation is required. This is a NYS Regents Course. Curriculum units begin in Ancient History to the 1700's. It is the first year of a two-year course of study. During their sophomore year, students study Global History and Geography II. At the conclusion of the two-year course, students will take a Regents Examination covering the content and skills from both years. The units of study covered in the students' freshman year are Introduction to Global History, the Ancient World, Expanding Zones of Exchange and Encounter, Global Interaction, and the Age of Absolute Monarchs. The study of the geography of the world is an integral part of each unit in the course.

Global History 10 1 Credit

The purpose of this course is to prepare students to take the Regents examination in Global History. It is a continuation of the course Lake Shore students take in their freshman year. The units of study covered in the students' sophomore year are The Age of Revolution, Industrialization and Imperialism, the World at War, and Perspectives on the Present. The study of the geography of the world is an integral part of each unit in the course. Students review for the Regents examination in Global History and Geography which will be administered in June.

AP World History 1 Credit

Students demonstrating the necessary skills and commitment to do the work may take Global History and Geography. This course is designed to meet and exceed New York State Regents and the Common Core Standards and goes beyond the requirements in material, in skill development and in enrichment topics and activities. Frequent writing assignments will be given, and an assignment should be expected each summer as part of the course requirements. Students are required to take the AP World History exam after completing 10th grade.

U.S. History 1 Credit

The purpose of this course is to prepare students to take the Regents examination in U.S. History. The units of study covered in the students' junior year are the U.S. Constitution, and trends in and the history of the United States from the Civil War to the present. Students review for the Regents examination in U.S. History, which will be administered in June.

Participation in Government .5 Credit

This course is one half of a state mandated two course sequence in the Social Studies necessary for graduation. The units of study covered in the students' senior year are comparative political and economic systems, the American constitutional system, the Bill of Rights, constitutional interpretation and controversial constitutional and contemporary issues. As future voters, students will discuss issues ranging from voter behavior to American political philosophies and the future of national politics. Open forum debate and discussion is a major feature of the class. Students will be required to complete periodic essays on political issues demonstrating their understanding on constitutional principles. A final issue paper and political party project are required to successfully complete the course. Students who are of age will register to vote at the conclusion of the class.

Economics .5 Credit

This course is one half of a state mandated two course sequence in the Social Studies necessary for graduation. The units of study covered in the students' senior year are basic economic concepts within American society, principles of macroeconomics, principles of microeconomics, and a comparison will be made between the American economic system and economic systems used by other nation-states. Students will be required to complete a project examining the stock market.

Introduction to Sociology .5 Credit

Introduction to Sociology introduces students to the study of human society and social behavior. The units of study covered will include such topics such as culture, violence, deviance, social control, socialization and personality, social class, social institutions, global wealth and poverty, family and religion. The course will be taught using college levels texts and material, and will prepare students who are considering taking sociology as either a major or minor in college. Frequent and ongoing forum debate and discussion of the material is a consistent feature of the class. Each student will actively be involved in social experiments and observations as well as group research projects and presentations. A final exam is required to complete the course.

AP Human Geography 1 Credit

Advanced Placement Human Geography is an introductory college level course focusing on the study of human geography. This course will have content that is typical to a semester-length undergraduate college level course, but have that content spread out over the full high school year. Passing the final AP exam at the end of the year with a “3” or higher awards you a semester’s worth of college credit in geography at many colleges and universities.

AP Human Geography’s purpose is to introduce students to a systematic study of patterns and processes that have shaped mankind’s understanding, use, and alteration of Earth’s surface. Students will learn to use spatial concepts when analyzing human’s organization of space, landscapes, and the environmental consequences of their decisions from the local to global level. Students will also be looking for patterns across the cultural landscape, trying to identify trends, and anticipate future phenomena using the scientific methods, research, and tools of geographers.

At its core, Human Geography teaches students how to interpret maps, select the correct maps to obtain information, interpret sets of data, and analyze geographic models to effectively evaluate the world we live in.

Seneca Iroquois History 1 Credit

The purpose of this course is to acquaint students with Native American origins and culture. The units of study covered include Longhouse villages, the Great Law of Peace and the Confederation, the first contacts between the Iroquois and Europeans, the Covenant Chain, use of wampum, treaty relationships, loss of independence, Handsome Lake and Revival, the Buffalo Creek Disaster, land claims, and contemporary Iroquois culture and society. The course also features guest lecturers on Haudenosaunee culture and history.

Native American Culture Through Film 1 Credit

Native American Culture through Film is a two-semester history/film studies course that connects the essential elements of global and American studies, archaeology, anthropology, technology, and film. Using Native Americans as a focus group, students explore films that flow from pre-European contact to popular culture within the Native communities. Students get a more in-depth look into the Native American realm of study, which is often covered quickly within the historical studies. Students also look more closely at the videos for film components and qualities.

Introduction to Psychology .5 Credit

Introduction to Psychology introduces students to the scientific study of human behavior and mental processes. This course focuses on individual behavior and why an individual thinks, feels and reacts to certain stimuli. Major emphases will be placed on the importance of psychology, psychological research methods, biology and behavior, sensation and perception, states of consciousness, stress and health, psychological disorders and methods of therapy. The course will be taught using a variety of methods of instruction including psychological experiments, research projects and presentations. A final exam is required to complete the course.

Leadership in Action 1 Credit

This elective class is designed for the student interested in learning the basic concepts of leadership including: group processes, leadership practice and planning, and organization in practical school situations. It affords the student the opportunity to develop leadership, human relations, communication, time management, teamwork, budget, project planning, and implementation. The grading for this class is based on two major projects that must benefit the school and/or community in addition to class work and tests.

AP U.S. History 1 credit

The course is designed to provide students with a college level experience and the analytical skills and knowledge necessary to prepare them for the AP College Board United States History test in May of each year. The course will examine the growth of the American Republic from its pre-European peoples to present day. The course topics will include colonial America, Revolutionary America, Jeffersonian and Hamiltonian ideology, Jacksonian Democracy, Manifest Destiny, Imperialism, Progressivism, the New Deal, World Wars I & II, the Cold War Era, and Modern America. The full year course will be divided into time periods and focus on major themes in US History including the social, political, economic, and cultural history.

Mathematics

Electives and specialty courses in core academic areas will run based on course enrollment

Course Name	Course Number	Weeks / Credit	Grades	Prerequisite
Intro to Geometry	MAT1330	40 / 1	10 or 11	Satisfactory completion of Algebra
Intro. To Algebra 2	MAT1316	40 / 1	11	Satisfactory completion of Geometry
Algebra	MAT1314	40 / 1	9 or 10	Satisfactory completion of 8th grade Math and recommendation by 8th grade Math teacher or successful completion of Intro. to Algebra
Algebra 1 With Lab	MAT1314L	40/1	9	Satisfactory completion of 8th Grade Math
Geometry	MAT1326	40 / 1	9, 10,11	Satisfactory completion of Algebra and Algebra Regents Exam
Honors Geometry	MAT1327	40/1	9-10	Mastery of Algebra I and Teacher Recommendation
Algebra 2	MAT1354	40 / 1	10 accelerated or 11	Satisfactory completion of Algebra, Geometry and their Regents exams plus teacher recommendations
Algebra Honors	MAT1359	40/1	9	Enrolled in 8th grade math and recommendation by 8th grade Math teacher
Algebra 2 Honors	MAT1356	40 / 1	10-12	Successful completion of Geometry and teacher recommendation
Pre-Calculus	MAT1340	40 / 1	12	Satisfactory completion of Algebra II or Intro to Algebra 2
College Calculus	MAT1357	40 / 1	11 or 12	Satisfactory completion of Algebra 2 and teacher recommendation
AP Calculus	MAT1352	40 / 1	12	Satisfactory completion of Calculus and Alg. 2/Regents exam
SAT Prep Math	9993	20/.5	11 / 12	Recommended Geometry or Intro to Geometry
Life Math	MAT1400	40/1	11/12	Real Life math skill, Banking, Budgeting, Taxes, Loans, Insurance and Investments
Statistics in the Real World	MAT1440	20/.5	10-12	Prerequisite Algebra 1 Understanding of how to interpret, calculate and graph statistics Can be paired with SAT Math or Personal Finance

Computer Programming

Course Name	Course Number	Weeks / Credit	Grades	Prerequisite
Exploring Computer Programming	MAT1355	40 / 1	10-12	Satisfactory completion of Algebra I
AP Computer Science Principles	MAT1311	40/1	10-12	Satisfactory Completion of Algebra I and teacher recommendation

Algebra 1 1 Credit

This course is a minimum requirement for graduation in New York State. Strong emphasis is placed on Algebraic thinking and seeing structure in expressions. Arithmetic operations with polynomials and rational functions, creating equations to model functions, and reasoning with equations and inequalities are the roots of this course. Mathematical practices are also emphasized. The Regents Exam in Algebra (Common Core) will be given at the end of the course in June, aligned with the Common Core Learning Standards. **NCAA Approved.**

****This Class may contain a lab****

Introduction to Geometry 1 Credit

This course is designed for students who need extra support before Geometry or complete the 3-year mathematics requirement for graduation. Topics covered in this course include properties of quadrilaterals, proofs and solid geometry. A school final is given at the end of the course.

Introduction to Algebra 2 1 Credit

This course is designed for students who need support before entering Regents level Algebra 2. This course will prepare students to take Algebra 2 in that it covers many of the same topics as Algebra 2 but at a slower pace. Students are encouraged to complete Algebra 2 during their senior year for an Advance Regents diploma. Students will take a school final at the end of the course.

Geometry 1 Credit

The fundamental purpose of the course in Geometry is to formalize and to extend students' geometric experiences from the middle grades. Students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards mathematical arguments. Important differences exist between this Geometry course and the historical approach taken in Geometry classes. For example, transformations are emphasized early in this course. Close attention should be paid to the introductory content from the Geometry conceptual category found in the high school CCSS. Students will take Geometry Regents Exam (Common Core) after the completion of this course in June. **NCAA Approved.**

Honors Geometry

This course follows the NYS Common Core Geometry standards and provides enrichment for the students that are capable of more advanced problem solving. The rigor of the course expectations will be greater than that of a regular Geometry course. Students will deepen their explanation of geometric relationships, moving towards formal mathematical arguments. Students will take the Geometry Regents Exam (Common Core) after completion of this course in June, students will be working toward achieving Mastery on this exam.

Algebra 2 1 Credit

Building on their work with linear, quadratic, and exponential functions, students extend their repertoire of functions to include polynomial, rational, and radical functions. Students work closely with the expressions that define the functions and continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. Students will take the Algebra 2 Regents Exam (Common Core) after the completion of this course in June.

Algebra Honors 1 Credit

This course follows the NYS Common Core Algebra 1 standards and provides enrichment for students that are capable of more advanced problem solving. The topics suggested by NYS to enhance the curriculum for a deeper understanding of Algebra 1 are taught, these topics are not required in the curriculum therefore are not currently taught in Algebra 1. Students are working toward a common goal of excelling on the NYS Regents Exam in June.

Algebra 2 Honors 1 Credit

The course would follow the NYS Common Core Algebra 2 standards and would provide enrichment for these students that are capable of more advanced problem solving. Topics that are suggested by NYS to enhance the curriculum for a deeper understanding of Algebra would be taught, these topics are not required in the curriculum therefore are not currently taught in Algebra 2. Students would be working toward a common goal of excelling on the NYS Regents Exam in June.

Pre-Calculus 1 Credit

This course, Pre-Calculus is designed as a college preparatory course. This course approaches math topics from a different view. Students deduct how formulas and equations are written. Topics include: a graphing project, exponential rules, matrices and a basic introduction to calculus that include limits in derivatives. A school final exam is given at the end of the course.

College Calculus 1 credit

This course includes limits, continuity, derivatives and integrals and all of their applications. Exponential, Trigonometric, and logarithmic functions are studied in addition to polynomial functions. The course will be less rigorous than AP Calculus. Through a partnership with ECC students may apply to obtain 4 college credits for Calculus. There will be a school final given at the end of the course.

AP Calculus 1 Credit

This course expands upon the concepts learned in Calculus with special attention to applications of limits, continuity, derivatives and integrals. It is equivalent to science based Calculus I, II and some Calculus III college courses. Appropriate college credit can be earned with successful achievement on the AP exam given in May. A school final is also given at the end of the course.

SAT Math Prep .5 Credit

Students would take SAT Prep- Math and SAT Prep-English at the same time. They would be assigned SAT Prep-Math on one day and SAT Prep-English during the same period on the opposite day. This would be a half year course and would prepare students for the SAT's.

Life Math 1 Credit

The course is designed to give students real-life math skills that will be useful to them in the future. Topics covered will include but are not limited to: banking transactions, check writing, budget building, taxes, loans calculations (both car and mortgage) insurance, investments, measuring, unit conversions and construction math.

Statistics in the Real World .5 Credit

After taking this course students will have a better understanding of how to interpret, calculate and graph statistics, whether to win an argument with friends or to provide factual evidence for a research project.. By using statistical and data-based research will learn how best to organize, explain, and justify their stance on real world topics. Students will also learn how to analyze statistics that they see in their daily lives in the media, sports, advertisements and the work force.

Exploring Computer Programming 1 Credit

Exploring Computer Programming is an introductory course designed to provide success for all students to become familiar with Computer Science and programming practices. Emphasis will be on using loops, conditionals, variables and functions. Students will be engaged in the problem-solving process through communication, collaboration, creation and debugging. These key ideas will be taught in an engaging way by use of scratch, CoSpaces, MIT app inventor and Lego Mindstorms Robotics. **Meets NYS Requirement for Math or Science.**

AP Computer Science Principles 1 Credit

AP Computer Science Principles is a full-year, rigorous, entry-level course that introduces students to the foundations of modern computing. The course covers many topics including the internet, data information, digital privacy, programming and algorithms, and global impact. Students will learn the principles that underlie the science of computing and develop the thinking skills that computer scientists use. Students will work on their own and as part of a team to creatively address real-world issues using the tools and processes of computation. Appropriate college credit can be earned with successful achievement on the AP exam given in May. Meets NYS requirement for either Math or Science.

Science

Electives and specialty courses in core academic areas will run based on course enrollment

Course Name	Course Number	Weeks / Credit	Grades	Prerequisite
Exploring Diseases	SCI1430	40 / 1	11-12	None
Forensics	SCI8065	20/.5	11-12	None
Environmental Science	SCI8066	20/.5	11-12	None
Earth Science Regents R.	SCI1412	40 / 1	9	None
Living Environment Biology R.	SCI1424	40 / 1	10	None
Chemistry R.	SCI1432	40 /1	11	Teacher recommended/Algebra 1
Chemistry Honors FA	SCI1435	40/1	10	Teacher recommended/-Biology 8th Grade
Chemistry Principles	SCI1433	40/1	11-12	None
Physics Regents / Physical Setting	SCI1442	40 / 1	10 & 11 Accelerated, 12	Higher level math is highly recommended
AP Biology	SCI1450	40 / 1	11-12	Living Environment/Biology, Chemistry and Algebra along with teacher recommendation
AP Chemistry	SCI1455	40 / 1	11-12	Physical Setting/Chemistry, upper level math, and teacher recommendation
AP Physics 1	SCI1459	40 / 1	10-12	Upper level math and teacher recommendation
Anatomy and Physiology of Human Body Systems	SCI8067	20/.5	11-12	None
Human Evolution/Human Origins	SCI8068	20/.5	11-12	None
Intro to Computer Science (CS)	SCI80740	40/1	9-12	None
The Physics of Sports	SCI8072	40/.5	11-12	None
The Science of Health & Wellness	SCI8073	40/.5	11-12	None

Exploring Diseases 1 Credit

This course will review past as well as current diseases around the world. We will look at the causes of disease and how they evolved through history. Treatments and prevention will be studied. The Zika Virus, Ebola, Measles outbreak in Disney World are a few examples of topics for discussion. The course is designed for students wishing to take additional sciences beyond what is required and can be taken concurrently with another science course. This course meets one period per day.

Forensics Science .5 Credit

Forensic Science will present the scientific principles of laboratory and field methods that forensic scientists use to solve problems. Students will take on the various roles of crime scene investigator, scientists and medical examiner in order to collect and evaluate evidence in a problem-solving environment.

Environmental Science .5 Credit

This course is intended as a third year choice for non-lab science students or as an elective for students concurrently enrolled in a Regents lab science. This course will cover basic environmental processes, the human impact on these processes, and environmental ethics. This course can be used to complete the graduation requirement for a third year of science when a lab science is not recommended.

Earth Science R. 1 Credit

This course of study investigates the earth model, its history, process of change, the earth's energy budget, and the rock cycle, leaving the student with the concept that we live in a dynamic earth which is constantly changing. This is a laboratory science and a written record of a minimum of 1200 minutes of lab work is a prerequisite for sitting for the Regents final exam. Lab meets every other day for one period.

Living Environment Biology R. 1 Credit

This is a laboratory science leading to a Regents Level sequence in science. This course is designed to provide a broad understanding of the principles of life. Topics include maintenance of plants and animals, human anatomy and physiology, reproduction and development, genetics, evolution, biochemistry, and ecology. As in all Regents Level Science courses, a written record of a minimum of 1200 minutes of lab work is a prerequisite for sitting for the Regents final exam. This laboratory course meets 3 periods in each 2-day rotation.

Chemistry R. 1 Credit

This is a laboratory science leading to a Regents Level sequence in science. This course represents a modern view of Chemistry based on topics that include atomic structure, bonding, mathematics of chemistry, kinetics and equilibrium, acid/base theories, oxidation/reduction, organic chemistry, nuclear chemistry and the application of the principles of reaction. A written record of a minimum of 1200 minutes of lab work is a prerequisite for sitting for the Regents final exam. This laboratory course meets 3 periods in each 2-day rotation.

Chemistry Honors FA 1 Credit

This is a laboratory science leading to a Regents Level sequence in science. This course represents a modern view of Chemistry based on topics that include atomic structure, bonding, mathematics of chemistry, kinetics and equilibrium, acid/base theories, oxidation/reduction, organic chemistry, nuclear chemistry and the application of the principles of reaction. A written record of a minimum of 1200 minutes of lab work is a prerequisite for sitting for the Regents final exam. This laboratory course meets 3 periods in each 2-day rotation.

Teacher recommendation for this course

Chemistry Principles 1 Credit

Chemistry Principles designed to introduce students to chemical behavior in everyday life. Students will gain a better understanding of common substances, their behavior, and get hands-on experience with how they relate to the world around them. Course study will use real world questions to explore matter and its properties, basic atomic structure, chemical reactions in industry, the environment and more. ***Class meets one period per day.***

Physics Regents / Physical Setting 1 Credit

This is a laboratory science leading to a Regents Level sequence in science. This course includes concepts such as motion, light, sound, energy, electricity, magnetism and the atom. Since a better understanding of mathematics is required, physics is usually taken as a senior subject. As in all Regents Level Science courses, a written record of a minimum of 1200 minutes of lab work is a prerequisite for sitting for the Regents final exam.

AP Biology 1 Credit

This course is designed to be the equivalent of an introductory college course with lab for Biology majors. It aims to provide students with up to date concepts, facts, and skills necessary to deal critically with biological issues as well as an introductory experience with writing and testing at the collegiate level. By scoring a 3, 4 or 5 on the AP Exam in May, students may show themselves qualified to receive college credit. Depending on the college and the student's score and degree program, AP Bio may be used as a prerequisite for upper-level courses, or as fulfillment of a basic degree requirement for a lab-based science course. Meeting time: 3 periods in each 2-day rotation.

AP Chemistry 1 Credit

This course is taught at a collegiate level, comparable to College Freshman Chemistry, with the intent that all students will take the AP exam in May. It is for students who have maintained at least a B average in all previous sciences and have completed Physical Setting/Chemistry. Since there is a heavy emphasis on problems and problem solving, the student should also be proficient in mathematics. This course is an in-depth study of chemical theories, principles and mechanisms. Meeting time: 3 periods in each 2-day rotation.

AP Physics 1 1 Credit

This is a 2-semester, non-calculus sequence that may be taken as a first or second year physics course. A good algebra background is a plus for being successful in this class. Students will be expected to take the AP Physics 1 exam in May. The course will also offer college credit opportunity through Niagara University (NU) with up to 4 credits per semester.

Anatomy and Physiology of Human Body Systems .5 Credit

This half year course is designed for non-science majors to learn about the structure and function of human body systems. The role of disease will be used to supplement the student's understanding of how the body system is compromised. This course will have some depth to it without it being cumbersome to the non-science major. Any student who has successfully completed Living Environment and Health will most likely be successful in this class. Moreover, any student who is considering a career in health care but is uncomfortable with the rigor of AP Biology would find this course to be highly beneficial prior to entering any college or nursing program. This course is designed to give a general overview of the major body systems and how they work in conjunction with each other in order to maintain human life. ***Class meets one period per day.***

Human Evolution/Human Origins .5 Credit

As contemporary humans, we are a product of our evolutionary past. That past can be directly observed through the study of the human fossil record, the materials preserved for archaeological study, and the DNA of living and extinct human populations. This course will provide an over view of human evolutionary history from the present-contemporary human variation in a comparative context-through our last common ancestor with the living great apes, some 5-7 million years in the past. Emphasis will be placed on major evolutionary changes in the development of humans and the methodological approaches used by paleoanthropologists and related investigators to develop that knowledge.

The course will begin by asking questions about how evolution operates to shape biological variation and what patterns of variation look like in living humans and apes. We will then look at how the human lineage first began to differentiate from apes, the rise and fall of the Australopithecines, the origin and dispersal of the genus Homo, and eventually the radical evolutionary changes associated with the development of agricultural practices in the past 15,000 years. Throughout the course students will be exposed to the primary data, places and theories that shape our understanding of human evolution. ***Class meet one period each month.***

Introduction to Computer Science (CS) 1 Credit

This course is aimed at students with little or no prior programming experience. This course is a hands –on application of designing, writing, testing, debugging code and maintaining computer software. The course is self-paced. ***Class meets one period per day.***

The Physics of Sports .5 Credit

The Aim of this course is to present the physical laws that affect various sports. With the help of simple simulations, graphs, and project-based learning, it is easily appreciated that science defines the performance of athletes, whereas at the same time the student is introduced to basic physics concepts in a novel and pleasant way. ***Class meets one period per day.***

The Science of Health & Wellness .5 Credit

Explore current concepts in health, exercise, and wellness and learn how to shape your own personal health. Topics will include:

- The role of health, nutrition, physical activity, and wellness in your daily life
- An understanding of how psychological and emotional health are connected to our overall wellbeing and health
- How to identify personal health risks based upon current lifestyle choices
- How to identify lifestyle changes that will enhance lifelong health
- How to evaluate the evidence to support healthy behaviors and lifestyles

Classes meet one period per day.

World Languages

Electives and specialty courses in core academic areas will run based on course enrollment

Course Name	Course Number	Weeks / Credit	Grades	Prerequisite
French 2	LAN1514	40 / 1	9	Successful completion of level 1 & NYS Proficiency examination or equivalent
French 3	LAN15124	40 / 1	10	Successful completion of level 2 L.O.T.E. or equivalent
French 4	LAN1532	40 / 1	11	Successful completion of level 3
French 5	LAN1550	40 / 1	12	Successful completion of level 4
German 1	LAN1580	40 / 1	9–12	none
German 2	LAN1516	40 / 1	9	Successful completion of level 1 & NYS Proficiency examination or equivalent
German 3	LAN1528	40 / 1	10	Successful completion of level 2 L.O.T.E. or equivalent
German 4	LAN1534	40 / 1	11	Successful completion of level 3
German 5	LAN1555	40 / 1	12	Successful completion of level 4
Seneca 2	LAN1565	40 / 1	9	Successful completion of level 1 & NYS Proficiency examination or equivalent
Seneca 3	LAN558	40 / 1	10	Successful completion of level 2 L.O.T.E. or equivalent
Seneca 4	LAN9107	40 / 1	11	Successful completion of level 3
Seneca 5	LAN9108	40 / 1	12	Successful completion of level 4
Spanish 2	LAN1512	40 / 1	9	Successful completion of level 1 & NYS Proficiency examination or equivalent
Spanish 3	LAN1520	40 / 1	10	Successful completion of level 2 L.O.T.E. or equivalent
Spanish 4	LAN1530	40 / 1	11	Successful completion of level 3
Spanish 5	LAN1545	40 / 1	12	Successful completion of level 4

German 1 1 Credit

German 1 is the introductory course in German language and prerequisite for German level two. Students will study basic German and work on the five proficiencies of foreign language study (Reading, Writing, Speaking, Listening and Culture). Skills and proficiency will be assessed by teacher-generated assessments including vocabulary and grammar quizzes, written assignments of a suitable length, as well as conversations, projects and in class participation.

French 2, German 2, Spanish 2, Seneca 2 1 Credit

This course continues study of the second language at the High School level from Middle School level 1. Comprehension and production of written and spoken language will continue to be emphasized. Students will receive continued instruction in vocabulary and grammar through thematic units designed to develop fluency. Cultural knowledge of the target culture will be enriched. In second year language study, students will gain greater confidence in producing both spoken and written language. Spoken and written fluency will be developed through informal presentations, group activities, and interactions with peers and familiar adults. Successful completion of course occurs with a passing final average.

French 3, German 3, Spanish 3, Seneca 3 1 Credit

This course continues study of the second language at the High School level from High School level 2 classes. *New York State Comprehensive Regents Examination is offered at the conclusion of this course. Successful completion of Regent's examination and this course, meet NYS L.O.T.E. requirements for earning a Regents diploma with Advanced Designation.* Students will study a curriculum developed along current NYS standards for study of a language other than English. Students will develop reading comprehension with authentic materials including selected readings, newspapers, and advertisements. Everyday spoken fluency will be developed through conversational activities. Students will engage in written activities increasing skills in writing notes, informal and business letters, as well as reports in the target language. Listening comprehension activities are structured around realistic situations presented through audio and video-cassette recordings. Students will be introduced to increased numbers of idiomatic expressions, increasing interaction and exposure through song, poems, and everyday language. Completion of this course is required before students may take NYS Comprehensive Regents Examination. Successful completion of course occurs with a passing final average and passing grade on final examination.

French 4, German 4, Spanish 4, Seneca 4 1 Credit

This course introduces students to advanced second language study. Students will develop knowledge of more advanced language by studying higher level grammar, increasing spoken and written language, and completing thematic projects. Areas of study may include: history, literature, art, music, story telling, and film. An in-depth study of culture allows students to understand and accept differences in life style and manners in target country, allowing for increased understanding of culturally acceptable behaviors and customs. Students develop spoken language increasing accuracy in routine social interactions. Students needing to take or re-take the Regents examination can continue to develop their language skills. This course provides the final element of a sequence in second language study, providing student has passed Regents examination. Successful completion of course occurs with a passing final average.

French 5, German 5, Spanish 5, Seneca 5 1 Credit

Level five language study offers students the opportunity to improve language skills enabling them to continue study at other educational institutions. Students will study advanced literature, culture, film, music, and traditions of target culture. Students will develop fluency in conversation and composition. Student comprehension of spoken and written language will be increased through exposure to more advanced authentic material. Upon completion of this course, it is expected that students will: understand essential points in conversations and presentations on familiar topics, handle most communicative situations with confidence, read excerpts of literature for pleasure, begin to analyze materials written for the general public, compose organized and well-developed texts on everyday topics, and demonstrate ease in using culturally appropriate behaviors. All students enrolled in this course must complete the final examination. Students enrolled in French 5, German 5, and Spanish 5 may opt to receive three (3) units of credit from Hilbert College (Hamburg, NY). This will prepare them for further study and may meet any College level L.O.T.E. requirements.

Health / Physical Education

Electives and specialty courses in core academic areas will run based on course enrollment

Course Name	Course Number	Weeks / Credit	Grades	Prerequisite
Health	1460	20 / .5	9—12	None
Team Sports	PE1961TS	40 / .25 every 20 weeks	9—12	None
Healthy Living	PE1961HL	40 / .25 every 20 weeks	9—12	None
Inclusive Physical Education	PE1973	40/.25 every 20 weeks	9-12	None

Health .5 Credits

Health education examines the eleven major conceptual areas recognized by the New York State Health Education syllabus. The course will allow high school students to take a close look at their own current state of health and take all the necessary steps to make health lifestyle changes and adopt healthy lifestyle behavior in order to reach optimal health. Understanding the seven dimensions of health (physical, emotional, social, intellectual, spiritual, occupational, and environmental), and improving health related behavior is the focus throughout the course. The New York State parenting curriculum is also covered during this course.

Team Sports .25 Credits

Team Sports: is focused on active game play, following sport rules, and independence in organization of activities. Some sports included in the course are handball, soccer, basketball, football, hockey, volleyball and swimming. Students will develop advanced skills, strategies, and sportsmanship throughout this course.

Healthy Living .25 Credits

Healthy Living: is focused on individual activities such as fitness, adventure, swimming, power walking, tennis, bowling and badminton. Students will be introduced to lifelong and personal activities in the classroom and the community. Nutritional concepts, stress management techniques and self image strategies will also be developed through this course.

Inclusion .25 Credits

Inclusive Physical Education: Provides a unique Physical Education experience for students of all abilities to work together through various sports and activities. It will be competitive but it will not be a win at all cost mentality. Students will assist, guide, and support each other during activities and skill development.

Art

Electives and specialty courses in core academic areas will run based on course enrollment

Course Name	Course Number	Weeks / Credit	Grades	Prerequisite
Studio in Art	ART1610	40/1	9—12	None
AP Studio in Art 2D	ART1651	40/1	11-12	Studio in Art & at least 2 Credits of Upper Level Art Courses
AP Studio in Art 3D	ART1661	40/1	11-12	Studio in Art & at least 2 Credits of Upper Level Art Courses
Drawing	ART1604	40/1	10-12	Studio in Art (75% avg. or greater)
Painting	ART1601	40/1	10—12	Studio in Art (75% avg. or greater)
Sculpture	ART1602	40/1	10—12	Studio in Art (75% avg. or greater)
Contemporary Crafts	ART1603	40/1	10—12	Studio in Art (75% avg. or greater)
Digital Art & Design	ART1606	40/1	10—12	Studio in Art (75% avg. or greater)
Digital Photography	ART1605	40/1	10—12	Studio in Art (75% avg. or greater)

Studio in Art 1 Credit

Studio In Art provides students with the fundamentals of the art-making process. It is a hands on, project based course, which encourages students to develop their creativity through individual expression. Students will learn basic techniques of drawing, painting, sculpting and print-making. All students interested in art, regardless of experience, are encouraged to take this course.

Students attaining a 75% average or higher in Studio In Art will meet the prerequisite to take any upper level art course.

Drawing 1 Credit

This is an intermediate art course in which students learn to handle a broad range of drawing media, including pencil, charcoal, pastel, conté crayon, ink, etc. This is a hands-on course where students will explore, line, shape, space, value and texture. The main focus of the course is on developing compositional skills. Various Compositions types will be studied as a method for translating concepts and ideas into two-dimensional visual images.

Painting 1 Credit

This advanced painting course will study and explore multiple painting media and techniques. Students will research and experiment with different methods of compositions in painting. The course will expand on the students' knowledge of the elements and principles of design, color theory, and use of specialized techniques. Students will work with watercolor, acrylic, and oil painting media. The class will focus on the compositional development of still life, landscapes, and contemporary genre. The exploration of individual painterly techniques and styles will be encouraged.

Sculpture 1 Credit

Sculpture class allows students to focus on the creation of three-dimensional form to express their creative ideas. Students will participate in a hands-on experience creating artworks "in-the-round". By using aesthetic and technical experiences, new forms and ideas will evolve. Students gain dexterity, sensitivity, and control over a wide range of materials and processes, including plaster, stone, wire, clay, wood, etc. Methods of making sculpture will include additive and subtractive processes encouraging the students to express ideas in three-dimensional space.

Contemporary Crafts 1 Credit

The fine art aspects of decorative and functional crafts are examined in this class. Students will explore crafts as a means for self-expression and aesthetic design through glass, textiles, sculpture, painting, and altered journals. Glass fusing, copper etching, papermaking, mosaic, and felting are a few of the techniques that will be explored in class.

Digital Art & Design 1 Credit

This course introduces the interaction of text and image and the fundamental components of graphic communication. Projects include logo and poster design along with photo manipulation and digital illustration. Students will learn how to use the programs Adobe Photoshop and Adobe Illustrator as they create solutions to a series of design problems.

Digital Photography 1 Credit

This course provides students with an introduction to digital photography followed by more advanced techniques in short video montage. The course will focus on camera techniques and functions of both digital SLR's and point and shoot cameras. Students will combine compositional techniques with elements and principles of design for the creation of still photography and video shorts. Adobe Photoshop and Adobe Premier Pro is used to enhance and manipulate imagery.

AP Studio in Art 2D or 3D 1 Credit

This is an advanced art course in which students will gain experience equivalent to that of an introductory college course in studio art foundation. Students have the option of submitting one of three different portfolios—drawing, 2D design, or 3-D Design—each based upon different skills mastered and concepts addressed in college-level foundation courses. Students will study a variety of contemporary and historical artworks, while developing their own personal inquiries that explore media, process and ideas. Upon successful completion of the course, students may earn college level credit to be used after graduation.

Applied Engineering & Technology

Electives and specialty courses in core academic areas will run based on course enrollment

Course Name	Course Number	Weeks / Credit	Grades	Prerequisite
Drawing & Design for Production (DDP)	TEC2320	40 / 1	9-12	9th graders should have above average math/science skills
Computer Aided Drafting (CAD)	TEC2300	40 / 1	10-12	None
Advanced Electronics	TEC0560	40 / 1	10-12	None
Advanced CAD / Manufacturing	TEC8009	40 / 1	10-12	DDP or CAD
Energy & Power Technology	TEC315	20/.05	9-12	None
Home Maintenance Repair	TEC542	20 / .5	9-12	None
Introduction to Electronics	TEC540	20/.5	9-12	None
Recording & Audio Production (RAP)	TEC567	20 / .5	9-12	None
Video Production 1	TEC0556	20 / .5	9-12	None
Video Production 2	TEC0555	20 / .5	9-12	Video Production 1
Photoshop and Graphics	TEC0557	20 / .5	9-12	None
Intro to CNC Manufacturing	TEC9000	20 / .5	9-12	None
Computer Repair	TEC2231	20/.5	9-12	None
Architectural Design / Modeling	TEC2303	40 / 1	11 or 12	DDP & CAD, Algebra & Geometry
Residential Structures	TEC2308	40 / 1	11-12	None

• 2022-2023

• 2023-2024

Students that enroll in Applied Engineering and Technology Classes at Lake Shore are open to several opportunities. The most obvious, is a well-rounded overview of technology and its applications in today's society. The underlying benefits of several classes also include a head start towards a technical career combined with the opportunity to earn college credits through Advanced Studies

Drawing and Design for Production DDP 1 Credit

Drawing and Design for Production is a class based on creative thinking, decision making processes, problem solving activities, and the design process. Students will combine these to come up with solutions to real world problems. Possible solutions are generated using 3-D software (Inventor by AutoDesk) and then turned into prototypes. Projects are developed using a variety of skills involving sketching, printing, plotting, 3-d printing, modeling and creation of prototypes.

**Students taking this course receive Technology Credit as well as satisfying the Art/Music credit requirement.*

**This course may be available for College Accreditation with ECC for any Sophomore, Junior, or Senior.*

*Restrictions apply.**

Computer Aided Drafting CAD 1Credit

This introduction to AutoCAD software and AutoCAD drawing techniques will allow students to learn the skills necessary to manipulate AutoCAD to solve basic drafting and design problems. Units of study include the importance of geometry in drawing, orthographic drawing, perspective drawing, assembly drawings, isometric drawing, sectioning, and proper dimensioning techniques.

This course may be available for College Accreditation with ECC for any Sophomore, Junior, or Senior. Restrictions apply.

Advanced Electronics 1 Credit

The field of electronics is changing rapidly. Students will be introduced to a variety of concepts and activities to prepare them for careers and future study related to electronics. Topics of study include: circuit analysis and repair, introduction to radio theory/audio applications, solar energy applications, programmable devices, computer science, semiconductor devices, use of simulation software, digital logic, and other emerging technologies. Students will also learn to work with test devices such as multimeters, function generators, and oscilloscopes

This course may be available for College Accreditation with ECC for any Sophomore, Junior, or Senior. Restrictions apply.

Advanced CAD and Manufacturing 1 Credit

The world of manufacturing has changed and will continually progress at a rapid pace. This course will introduce students to the direct relationship of 3-D modeling and manufacturing. Students will create 3-D parts and models using Autodesk Inventor software and then create working models through hands-on activities related, but not limited to, the craftsman approach, rapid prototyping, 3-D printing, laser cutting and engraving, and computer controlled machining. Students will not only create drawings and projects, but will also generate code to control 3-axis machinery such as CNC mills and routers.

Energy and Power Technology .5 Credit

Every technological endeavor makes use of one or more energy forms. The Energy and Power Technology course is intended to acquaint students with the sources and forms of energy available now and what may be available in the future. Students will learn that they are often choices to be made about the most appropriate energy form to use. The energy conversion systems which change energy forms to meet human needs also will be studied. The course conversion systems which change energy forms to meet human needs also will be studied. The course stresses the importance of identifying the issues and problems associated with the use of each energy form and conversion system. Identifying the consequences of choices is also an important aspect of the course.

Home Maintenance / Repair .5 Credit

Have you ever wired a light, plumbed a sink, tiled, painted, or fixed something around the house. Well what are you waiting for? Anyone can watch it on TV, but it's more fun doing it for yourself, and more rewarding also! Students will get "hands on" training on a variety of tools and power equipment used to do projects in areas such as basic wiring, basic plumbing, installation and maintenance of home appliances, remodeling principles, home safety, etc. Projects will reflect these areas and the interest of students as well.

Introduction to Electronics .5 Credit

Electronics have become a part of our everyday life, but do you know how and why they work? Nearly every technical occupation requires some understanding or background in electronics. This course is designed to give students a better understanding of general terminology and electrical safety, along with projects revolving around the basics of soldering, circuit testing, creation of circuit boards, electric motors, electrical house wiring and repair, as well as electronic fabrication and repair

Recording & Audio Production RAP .5 Credit

Sound Recording & Live Sound Production is the sister industry to the Video, Gaming and Telecommunications industry. Students will learn techniques used in live music/theater set up and operation, recording music, TV and movie sound. Microphone types and techniques, production practices, mixing and mastering sound will be taught in our “state of the art” PC lab using software apps such as FL studios, Audacity and various other audio editing programs. Projects will include recording songs by real bands and artists, working with sound loops, creating ring tones and creating soundscapes. Learn how to make your own guitar or mic. cable.

Video Production I .5 Credit

Video and digital media is all around us, from websites like You Tube and Facebook, to actual professional TV shows and movies. You will be introduced to digital video and learn how the pros record, edit and produce audio/video productions. You will also work on the weekly Eagle News magazine show which is seen throughout the district. Production and editing takes place in our TV studio and use software such as Adobe Premiere, PhotoShop, After Effects and DVD Authoring.

****This course may be available for College Accreditation with ECC for any Sophomore, Junior, or Senior. Restrictions apply.****

Video Production 2 .5 Credit

In addition to the concepts learned in Video Production 1 you will learn how to create special effects like “green screen” and music video techniques. Movie and TV uses dialogue and action video techniques to tell stories. You will too. You will also work on the weekly Eagle News magazine show which is seen throughout the district. Production and editing takes place in our TV studio and use software such as Adobe Premiere, Photoshop, After Effects and DVD Authoring. Video Production 1 is required unless you get instructors permission.

****This course may be available for College Accreditation with ECC for any Sophomore, Junior, or Senior. Restrictions apply.****

Photoshop and Graphics .5 Credit

Many current jobs use Adobe PhotoShop to create and manipulate photos, print and computer graphics design. Fashion, Art, Advertising, Journalism, Movies and so many more businesses use it. In this course you will master the basics in PhotoShop through project work that includes web images, photographic touch up in restoration, print poster, tee-shirt design printing, vinyl design and sticker graphics. You will learn how to use the PS tool palette, layers, filters, masks, channels and gradients. No one knows everything about PhotoShop, but everyone needs to know something about it. It’s a half year course and can be taken for SUNY credits if 5 or more students elect for it.

Intro to CNC Manufacturing .5 Credit

The world of manufacturing is full of exciting new ways of producing products. This course will introduce you to many basic concepts and the coding used to operate CNC (Computer Numeric Control) machinery. These basic skills may help you earn an entry level position or may simply introduce you to a world that you have only seen on TV. A world that is full of machines that cut and engrave with laser, intrinsically carve at the push of a button, or form a useful part from a block of aluminum or plastic. This hands-on class will take you from basics to actually programming and producing your own products, and leave you with practical skills that are part of today's ever increasing manufacturing work force.

Computer Repair .5 Credit

Computer technology is changing rapidly. This course is designed to introduce students to basic personal computer (PC) operation, hardware, and software. Current standards will be discussed for memory, processors, motherboards, and other computer hardware. Students will learn to assemble, diagnose, maintain, and repair a common PC. Students will also learn how to build a PC from scratch

Architectural Design / Modeling 1 Credit

Topics include the history and cultural influences of architecture from around the world, tools and techniques of architectural design, aesthetics, site planning, room planning, floor plans, section views and more. Students will design and develop sketches and prints for typical situations in residential settings using sketching and AutoCAD software. Students will also create scaled models for visual representation of the plans they have created. Basic construction techniques will also be discussed.

DDP OR CAD, Algebra and Geometry or Instructor permission

Residential Structures 1 Credit

Are you interested in construction or becoming a carpenter? Then try your hands at the world of construction and learn the basics about building projects such as tool sheds, decks, and additions. Projects will be based on the strengths of both, individuals and teamwork, as on the job site, and will become useful structures within our community. Students will learn about proper tools, materials, codes and careers relating to the building trades.

Academy of Business & Finance

Electives and specialty courses in core academic areas will run based on course enrollment

	Course	Course Number	Weeks / Credit	Prerequisite
Ninth Grade	Recruitment			
Tenth Grade	Strategies for Success	BUS1820AOBF	20/.5	Business Academy Student
	Microsoft Office **MCAS Certification**	BUS2163AOBF	20/.5	Business Academy Student
Eleventh Grade	Accounting AOBF**	BUS1822AOBF	40/1	Business Academy Student
	BEEP (Business Education Employability Portfolio**)	BUS1825AOBF	20/.5	Business Academy Student
	AOBF School Bank	BUS1824AOBF	20/.5	Business Academy Student
	Personal Finance	BUS 2132	20/.5	Business Academy Student Taken in 11th or 12th Grade
Summer Intern- ship	Internship AOBF Paid (Min 130 hours, Max 150. Hours will vary based on school bank hours received)	BUS1830AOBF	8/.5	Business Academy Student
Twelfth Grade	Business Ethics	BUS1826AOBF	20/.5	Business Academy Student
	Financial Planning	BUS1827AOBF	20/.5	Business Academy Student
	Public Speaking	BUS1224A	20/.5	Business Academy Student

*Meets the English/Social Studies Economics Graduation Requirement **3 Credit hours ***4 Credit hours from ECC

Accounting AOBF 1 Credit

“Accounting is the language of business.”

This first year accounting course provides a thorough background in the basic accounting procedures used to operate a business. Students will have a basic understanding of accounting procedures, payroll records, basic debits and credits, cash and special journals, worksheets, adjusting and closing entries, financial statements and checking accounts. The student is introduced to computerized accounting applications, such as, Microsoft Excel and more. The instructor of this course is an Adjunct Professor at ECC. Students enrolled in this course are eligible to obtain **4 hours of college credit** through the Advanced Studies Department at ECC. Tuition is 1/3 the normal ECC cost and hours are fully

Personal Finance .5 Credit

This is a one-semester course presenting a survey of the principles of personal finance and the practices of banking and credit. Students will become familiar with the concepts and terminology relating to personal financial issues. They will also learn about the major functions of banks and other depository institutions, their in-house operations and procedures, central banking through the Federal Reserve System and modern trends in the banking industry. Students will take part in checking account simulation as well as complete an extensive budgeting project at the conclusion of the course.

Business Education Employability Portfolio (BEEP) .5 Credit

“This portfolio allows you to leave high school with not only an edge on others in the world of work and college, but also with a sense of pride and a record of your accomplishments.”

The Business and Education Employability Portfolio, an electronic portfolio, will be compiled highlighting the student’s exemplary work and extracurricular activities during high school. The student’s career exploration, personal profile and academic records will also be included in the portfolio. Students will participate in a professional interview with local business partners and showcase their portfolios. This class prepares students for their summer internship. The instructor of this course is an Adjunct Professor at ECC. *Students enrolled in this course are eligible to obtain 3 hours of college credit through Advanced Studies Department at ECC at 1/3 the normal ECC cost.*

Business Ethics .5 Credit

AOFB Ethics in Business is one of the core courses in our Academy of Business & Finance. This one semester course focuses on the important aspects of ethics as they apply to business decision making. In this class, we will focus on the significance and importance of ethics to stakeholders, examine who bears responsibility for ensuring an ethical code is followed, and explore ethical situations common in organizations. We will also investigate how ethics is used in various business disciplines, and consider the impact of an organization's culture and values on its ethical practices. The course also examines ethics as social responsibility and the increasing importance of ethics in the corporate world as business becomes more international. Finally, because ethics is critical to every organization, students will be given the chance to consider some of the different careers that require a strong background in ethics.

Financial Planning .5 Credit

This semester course will review and expand upon the concepts learned in PFBC, providing students with the knowledge of the financial planning process and the components of saving and investing. Students will create budgets, explore various investment vehicles such as stocks, bonds, mutual funds and IRA's and review various retirement plan options. Students will also learn the facts about trading on-line, purchasing insurance and understand some basic concepts of investing including "buying low and selling high," "not putting all your eggs into one basket" and the "Rule of 72."

Microsoft Office .5 Credit

Computer skills are NOT a bonus anymore; they are an EXPECTATION in the workforce and college! Course emphasis is on word processing and spreadsheet applications utilizing Microsoft Office software. Students will be proficient in Microsoft Word and Excel and have the option to obtain Microsoft Application Specialist (MAS) Certifications giving them evidence of their proficiency (important to employers). Students will also be exposed to the fundamentals of Microsoft Access and Microsoft Powerpoint. This course will also explore integration between applications and use of the internet. The instructor of this course is an Adjunct Professor at ECC. *Students enrolled in this course are eligible to obtain 3 hours of college credit through the Advanced Studies Department at ECC. These hours are fully transferable to participating colleges and the tuition is 1/3 the cost of taking the same course on the ECC campus.*

Public Speaking .5 Credit

This course is a basic introduction to public speaking; it is a necessity today to be able to present oneself in a professional manner at both interviews and on the job. In Public Speaking, students first and foremost learn a variety of techniques and practices to enable them to feel more comfortable and prepared when giving presentations of any kind. Specifically, students learn how to model, write and present a professional speech with relevance and eloquence. Students present a number of speeches and presentations in front of their peers on a variety of topics both personal and professional. Many forms of technology are utilized in their presentations as a means to better prepare them for the real world. (Meets English Requirement) **NCAA Approved.**

Summer Internship .5 Credit

In the spring of Junior year students are required to apply for a summer internship opportunity. Students will gain on-the-job experience, earn compensation and explore career opportunities.

Strategies for Success .5 Credit

Are you ready for the world of work? In this course, students will explore the characteristics of their personality, identify career goals, and practice interviewing techniques. Students will develop strategies for success in school and in life. They will develop goal setting strategies and leadership skills. Students will put together a career portfolio and start taking the necessary steps to determine a career path.

Evans Bank Student Run Branch .5 Credit

Through a unique partnership agreement with Evans Bank, the Lake Shore High School Academy of Business and Finance operates a student run branch. This project provides an opportunity for Academy students to apply their skills and knowledge in a real setting. The general student population, faculty and staff will have the option to open checking and savings accounts and conduct their banking business on site. Academy students may receive up to 1 full business credit.

Business

Electives and specialty courses in core academic areas will run based on course enrollment

Course Name	Course Number	Weeks / Credit	Grades	Prerequisite
Personal Finance	BUS2132	20/.5	11-12	None
Entrepreneurship	BUS2230	20/.5	11-12	None

Entrepreneurship .5 Credit

Entrepreneurship introduces students to the critical role entrepreneurs play in the national and global economy. Students learn the skills, attitudes, characteristics, and techniques necessary to become successful entrepreneurs. They explore starting a business and learn about the operational issues and financial risks that new businesses face. Students examine ethical issues and develop a framework for managing them. Finally, students identify the risks, returns, and other aspects of entrepreneurship as a potential career. Integral to the curriculum is a culminating project that builds on students' ability to research the market and develop a business plan.

Personal Finance .5 Credit

This is a one-semester course presenting a survey of the principles of personal finance and the practices of banking and credit. Students will become familiar with the concepts and terminology relating to personal financial issues. They will also learn about the major functions of banks and other depository institutions, their in-house operations and procedures, central banking through the Federal Reserve System and modern trends in the banking industry. Students will take part in checking account simulation as well as complete an extensive budgeting project at the conclusion of the course.

Music

Course Name	Weeks / Credit	Grades	Prerequisite
Band**	40 / 1 (Full Yr.)	9-12	None
Orchestra**	40 / 1 (Full Yr.)	9-12	None
Chorus**	40 / 1 (Full Yr.)	9-12	None
Music Theory (Next Offered 2023-2024)	40 / 1 (Full Yr.)	9-12	None (This course will satisfy the prerequisite for AP Theory offered the following year)
AP Music Theory	40/1 (Full Yr.)	10-12	Music Theory (Just offered 2021-2022), Or Any Junior or Senior in Band, Orchestra, or Chorus (see course description)
Beginner Piano	20 / .5 (1st Sem.)	9-12	None
Beginner Guitar	20 / .5 (1st Sem.)	9-12	None
Advanced Piano	20 / .5 (2nd Sem.)	9-12	Beginner Piano, Proficiency Exam, or Teacher Rec.
Advanced Guitar	20 / .5 (2nd Sem.)	9-12	Beginner Guitar, Proficiency Exam, or Teacher Rec.

****Music Lessons:** In addition to the large group rehearsals, all students enrolled in band, orchestra, and chorus will be scheduled to attend small group lessons. The lessons are set up on a rotating basis to minimize the amount of disruptions with other classes. Music teachers will prepare and distribute lesson schedules so all students have the schedule each semester.

1 credit in music meets the state graduation requirement for art

Band (1 Credit)

The purpose of this course is to teach students skills needed for playing various musical instruments as well as participation in an instrumental ensemble through rehearsal and performance. During rehearsals students will be exposed to various types and styles of instrumental literature. In addition to rehearsals and performances, every band student is scheduled for a 1 period lesson each week. Students will also participate in several mandatory evening concert performances throughout the school year. Any student interested in continuing on their band instrument, returning to band if you quit at the elementary or middle school, or a new beginner wanting to learn a wind or percussion instrument should sign up for this course.

Beginners need to confer with the instructor to determine the final instrument choice.

This course satisfies the N.Y.S. mandated credit in the arts and counts toward a 5 unit sequence in the Arts.

Orchestra (1 Credit)

The purpose of this course is to teach students advanced skills needed for playing various string instruments as well as participation in an ensemble through rehearsal and performance. During rehearsals students will be exposed to various types and styles of orchestral literature. In addition to rehearsals and performances, every orchestra student is scheduled for a 1 period lesson each week. Students will also participate in several mandatory evening concert performances throughout the school year which will make up a major part of each student's grade. Any student interested in continuing on their string instrument, returning to orchestra if you quit at the elementary or middle school, or a new beginner wanting to learn a string instrument should sign up for this course.

Beginners need to confer with the instructor to determine the final instrument choice.

This course satisfies the N.Y.S. mandated credit in the arts and counts toward a 5 unit sequence in the Arts.

Chorus (1 Credit)

The purpose of this course is to teach students advanced skills needed for participation in a vocal ensemble through rehearsal and performance. During rehearsals students will be exposed to various types and styles of choral literature. In addition to rehearsals, every chorus student will be scheduled for lessons each quarter. Students will participate in several mandatory evening concert performances throughout the school year which will make up a major part of each student's chorus grade. Any student interested in continuing in chorus, returning to chorus if you quit at the elementary or middle school, or a new beginner wanting to learn how to sing should sign up for this course.

New students will need to demonstrate the ability to match pitch.

This course satisfies the N.Y.S. mandated credit in the arts and counts toward a 5 unit sequence in the Arts.

Music Theory (2023-2024) (1 Credit)

Music Theory explores the basic theoretical elements of the rudiments, terminology, and standard notation of music, including identifying, hearing and notating pitches, intervals, scales and keys, chords, meter, rhythm, and basic chord progressions. This course will provide the basic fundamentals needed for song writing and composition and will also provide the foundation for success in Advanced Placement Music Theory.

This course is offered every other year alternating with AP Music Theory. (This course was offered 2021-2022)

This course satisfies the N.Y.S. mandated credit in the arts and counts toward a 5 unit sequence in the Arts.

AP Music Theory (2022-2023) (1 Credit)

The goal of AP Music Theory is to instill mastery of the rudiments and terminology of music, including hearing and notating pitches, intervals, scales and keys, chords, meter, and rhythm. Building on this foundation, the course should progress to include more sophisticated and creative tasks, such as melodic and harmonic dictation, composition of a bass line for a given melody, implying appropriate harmony, realization of a figured bass and Roman numeral progressions, analysis or repertoire, including melody, harmony, rhythm, texture and form, sight-singing. This course will provide students the training to take the AP Music Theory exam offered in the Spring. Scoring high enough may earn students college credit.

The prerequisite for this course is Music Theory or a Junior or Senior in Band, Orchestra or Chorus. This course is not open to freshman. Any Sophomore or older can enroll having taken Music Theory.

This course is also a MUST for any student considering a music major in college.

This course is offered every other year alternating with Music Theory. (Next Offered 2022-2023)

This course satisfies the N.Y.S. mandated credit in the arts and counts toward a 5 unit sequence in the Arts.

This course satisfies the N.Y.S. mandated arts credit for music leading to an Advanced Regents Diploma.

Beginner Piano (.5 Credit, 1st Semester Only)

The purpose of this course is to provide group instruction on the piano keyboard. The emphasis is on understanding standard notation, reading and playing chord charts, and piano melody with simple chord accompaniment. The content includes but is not limited to: basic hand position, five-finger patterns, music reading skills, contemporary pop, rock, classic rock genres, popular holiday selections, piano technique, ensemble playing, and practice skills.

This course is offered 1st semester only!

This course satisfies half of the N.Y.S. mandated credit in the arts and counts toward a 5 unit sequence in the Arts.

Beginner Guitar (.5 Credit, 1st Semester Only)

The purpose of this course is to provide group instruction on the guitar. The emphasis is on reading and playing chord charts, basic tablature, and melody with simple chord accompaniment. The content includes but is not limited to: basic hand position, scale patterns, music reading skills, contemporary pop, rock, classic rock genres, popular holiday selections, piano technique, ensemble playing, and practice skills.

This course is offered 1st semester only!

This course satisfies half of the N.Y.S. mandated credit in the arts and counts toward a 5 unit sequence in the Arts.

Advanced Piano (.5 Credit, 2nd Semester Only)

The purpose of this course is to provide advanced group instruction on the piano keyboard. The prerequisite is **Beginner Piano** or with permission from the instructor following a student demonstration of their skills. The emphasis is on advanced music reading, playing chord charts, and piano melody with chord accompaniment. The content includes but is not limited to: basic hand position, five-finger patterns, music reading skills, contemporary pop, rock, classic rock genres, popular holiday selections, piano technique, ensemble playing, and practice skills. *This course is offered 2nd semester only!*

Students MUST take Beginner Piano or Take a Proficiency Playing Exam to test into the course

This course satisfies half of the N.Y.S. mandated credit in the arts and counts toward a 5 unit sequence in the Arts.

Advanced Guitar (.5 Credit, 2nd Semester Only)

The purpose of this course is to provide advanced group instruction on the guitar. The prerequisite is **Beginner Guitar** or with permission from the instructor following a student demonstration of their skills. The emphasis is on advanced music reading and playing chord charts, advanced tablature, and melody with chord accompaniment. The content includes but is not limited to: basic hand position, five-finger patterns, music reading skills, contemporary pop, rock, classic rock genres, popular holiday selections, piano technique, ensemble playing, and practice skills.

These course is offered 2nd semester only!

This course satisfies half of the N.Y.S. mandated credit in the arts and counts toward a 5 unit sequence in the Arts.

Career & Technical Education

Lake Shore Central is a component district of the Erie 2/Chautauqua/Cattaraugus BOCES, which offers Career and Technical education programs for all 29 component districts. Since not all programs are available at every ECCB educational center, Lake Shore students must be bused to the center offering the program they select.

CAREER AND TECHNICAL EDUCATION CENTERS

LAKE SHORE CARRIER TECHNICAL CAREER CENTER – The Carrier Center is located on the same campus as Lake Shore High School.

LOGUIDICE CENTER – The LoGuidice Center is located in Fredonia, New York which is approximately a 30 minute bus trip from Lake Shore High School.

Career and Technical programs are two years in length and students are usually enrolled during their last two years of high school. Each program offers 4 units of credit for each year of study. Students who enroll in a Career and Technical program are out of the high school for about one half of the school day. The current schedule is:

LAKE SHORE HIGH & CARRIER CENTER	AM Level 1 (12 th Grade)
	PM Level 2 (11 th Grade)
LOGUIDICE CENTER	AM Level 1 (11 th Grade)
	PM Level 2 (12 th Grade)

Home School CTE and Integrated Academic Credit Distribution for students enrolled in an Approved Program. Core Academic Credit Distribution is based on the New York State CTE collaborative teaching model for integrated academics.

Junior Year

Senior Year

2.5 Units	CTE	1.5 Units	CTE
.5 Unit	CTE Integrated Math	1 Units	CTE Technical Writing
.5 Unit	CTE Integrated Science	.5 Unit	CTE Integrated Math
.5 Unit	Integrated CFM*	.5 Unit	CTE Integrated Science
		.5 Unit	Integrated CFM*
4 Units of Credit		4 Units of Credit	

*Career and Financial Management

SPEICAL NOTE: Credit granted by Lake Shore for Math, Science and English is at the end of the two-year program. The following courses are offered at one of the two Educational Centers:

CARRIER EDUCATIONAL CENTER

Additional Fees

If you're unable to afford the following costs, please contact your school counselor

PROGRAM	ITEMS REQUIRED / RECOMMENDED	APPROX. COST
CDOS	Closed toed shoes, 3 subject spiral note book, Pens / pencils	\$30
Cosmetology	Sam II Manikin, Thomas Manikin, Emily Junior Size Manikin	\$100
	Black Scrubs (sweatpants or slacks), 1 pair of professional All black shoes – closed toe.	\$35
Criminal Justice	UNIFORM – which includes: police type short sleeve Uniform shirt, Black duty belt, Black Pants with yellow Braid, Black police type boots or shoes. Explorer Post 100 Registration Fee.	\$200
Culinary	UNIFORM – which includes: 2 Chef Coats, 2 Pairs of Chef Pants, 2 Aprons, 1 Chef Hat	\$100
	Leather top, skid resistant black shoes. Taylor 9847n Anti- Microbial Instant Read Digital Thermometer, Manufacturer Part Number: 3519-9	\$40
HVAC	Work boots / work shoes (Steel Toe) Work pants, Black or Blue, Leather work gloves, Clear Safety Glasses (OSHA Approved), Spiral notebook, pens / pencils Class Logo Polo Shirt (Optional)	\$100
	Sectional 608 Federal Certification Exam for Refrigerant Recovery (Recommended, but optional)	\$25
Information / Technology	Course Materials fee for Microsoft, PC repair Certification and TestOut curriculum	\$50
	1 pair of headphones or earbuds, Pens/Pencils	\$15
Small Animal Science	Scrubs (tops & bottoms), closed toed shoes (sneakers preferred) 3 subject spiral note book, 2" white binder, notebook Dividers, Headphones, Safety Goggles, Pens / Pencils	\$100

W.H. Carrier Center

Career Development and Occupational Studies

The Career Development & Occupational Studies (CDOS) program is a one-, two-, or three-year program that empowers students to acquire the skills and insights necessary to succeed in a two-year Career & Technical Education (CTE) program or to enter the workforce with fundamental job skills.

CDOS is designed for students who want to participate in a general exploratory experience. Students receive instruction on safety awareness and how to follow safety rules, appropriate social skills and work habits, related vocabulary and measurement skills, and hands-on instruction with both hand tools and power tools. This skill development will empower the students for success in a two-year CTE program.

Information Technology/Computer Systems

Instruction will focus on computer hardware and operating systems. Students will prepare to take the industry recognized COMPTIA A+ Exams. Students will receive training in Computer Science theory and introductory level computer networking as well as preparing students for careers around COMP TI A+ Network + Certification and Microsoft Office Specialists/Master Certifications. (2-year program)

Cosmetology

This program offers both theory and practical experience necessary to be employed as an entry-level Cosmetologist. Safety, professional image, decontamination, anatomy, haircutting, perming, chemical hair relaxing, hair coloring, braiding, nail and skin care, makeup, and salon management are topics covered in the curriculum. Second year students participate in a clinic open to the public. Students completing the two-year program are prepared for the New York State Licensing Exam, which requires 1000 practicum hours. Upon licensing, students are certified to work in the areas of hair care, nails, and aesthetics. (2-year program)

CSI Forensics

Students in this program are provided a general background in the history of Criminal Justice. Students receive instruction pertaining to legal terminology and practical application of communication skills necessary for a career in law enforcement. The security occupations studied include: private, federal, state, and local agencies. Students are provided an in-depth approach to the study of criminal justice issues through case law, as it applies to the constitutional issues, law enforcement, courts, and corrections. Students also participate in mock trials and related scenarios. Students are provided CPR/First Aid training and receive certification for the New York State Eight-Hour Security Guard Program.

Participation in an internship with a criminal justice agency is also a requirement. (2-year program)

Culinary Arts

The essential components of the food service industry are presented. These include: menu planning, food preparation, cutting techniques, conversion of recipes, equipment identification, baking, cost analysis, ice carving, dining room service, as well as banquet and buffet skills. Culinary principles with emphasis on soups, sauces, and stocks are thoroughly practiced. Areas of study from the hospitality industry include: hotel and food service purchasing, skills required for successful employment at inns, resorts, and on cruise ships. In addition, training in sanitation, hazard analysis critical control points (HACCP) principles, and kitchen safety are offered. Students are prepared for future employment and/or enrollment at post-secondary schools specializing in the culinary industry. (2-year program)

Heating/Air Conditioning/Refrigeration

Instruction in the principles and fundamentals of heating, air conditioning, and refrigeration is applied to fabrication, installation and troubleshooting situations for these various systems. Students learn how to work with electrical testing equipment, plastic, steel and copper pipe and tubing, sheet metal, hand tools, and specialized tools of the trade. (2-year program)

Small Animal Science

Students develop specialized skills in veterinary assistance, the care and handling of animals in a laboratory setting, dog grooming, and more. In addition, students develop basic and advanced dog grooming skills through an in-class “Doggie day care” program through which dogs are brought to the clinic by the Lake Shore community. (2- year program)

LoGuidice Center

Auto Body Repair

Automotive Body Repair develops entry-level skills in a shop setting similar to commercial collision repair shops. Students will hone their skills in metal straightening, aligning, replacing, MIG welding, body filling, painting, buffing, and detailing. Students are able to practice their skills in the spray booth, as well as with equipment and tools used in the collision repair industry. This program also focuses on material usage record-keeping, damage estimation, and job costs as they write their own collision estimates as well as order and manage supplies. Students enrolled in this program may work on their own vehicles after developing their skills on an assortment of assigned projects.

Automotive Technology

Automotive Technology provides students with real-world work experience in automotive service and repair shops. Students work with power tools, electronic diagnostic equipment, computerized front-end machinery, and emissions test equipment. Automotive Technology students will study fuel injection systems, computer control systems, and all aspects of vehicle repair. Other jobs performed in the shop involve tire servicing, suspension servicing, repairing/maintaining electrical, brake, exhaust, air conditioning systems, and all aspects of engine performance.

Upon completion of this program, students are eligible to take the National Institute for Automotive Service Excellence (ASE) tests in several different areas.

Construction Technology

Construction Technology gives students a background in carpentry, electrical work, plumbing, masonry, and blueprint reading and helps prepare them for a variety of construction related occupations. Students are also able to put their skills to the test through internship opportunities and community building projects. Students will be prepared to earn a variety of valuable certifications and licenses, such as the Powder-Actuated Tools Operator license from Hilti Tools, the Home Energy Analyst & Technician certification from NYSERDA, and the Insulated Concrete Form Installation certification through LOGIX ICF.

Students also take a 10-hour safety course through OSHA.

Health Careers

The two-year Health Careers Program provides students with entry-level skills, valuable industry certifications, and the opportunity to have first-hand experience working in a variety of health care-related fields. Students will study basic anatomy and physiology, diseases and disorders, medical terminology, medical ethics, nutrition, geriatrics, child development, infection control, maternal/child health, first aid, and pharmacology. Students will practice performing basic nursing procedures, and function as part of a health care team. Clinical experiences allow students to explore different areas of the health care field. Experiences include registered nursing, nursing assistance, occupational therapy, physical therapy, and child care.

Welding / Metal Fabrication

The two-year Welding/Metal Fabrication Program enables students to develop specialized and sought-after skills for employment in the welding and metal fabrication industry. Students learn the most up-to-date welding and metal fabrication techniques and procedures in a variety of areas, such as electric arc welding, metal inert gas (MIG) welding, tungsten inert gas (TIG) welding, oxyacetylene cutting and welding, flux cored arc welding, and plasma arc cutting.

Criminal Justice

Criminal Justice is designed for the students interested in the areas of law enforcement or public/private security. This program provides students with a foundation in legal theory and the enforcement of criminal law. All aspects of police work are thoroughly explored.

Conservation

Conservation prepares students for a wide variety of careers involving the development and protection of natural resources. Instruction takes place both inside the classroom, in greenhouses and outdoor labs that include areas for heavy equipment operation and practice.

Sports Conditioning & Exercise Science

Sports Conditioning and Exercise Science, provides foundational skills and knowledge for students choosing to pursue professional certifications in personal training and further education in athletic training, physical therapy, chiropractic, massage therapy and dietetics.