

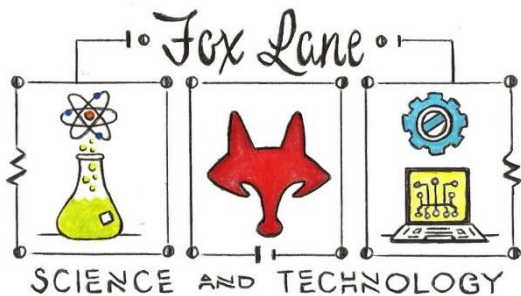
Course Offerings 2019-2020

Also available in a [presentation](#) format.

9 th GRADE		
Core Courses	Electives (Taken in Combination with a Core Course)	
Living Environment Regents	Introduction to Engineering and Design **	
Living Earth Regents		
10 th GRADE		
Core Courses	Electives (Taken in Combination with a Core Course)	
Earth Science Regents	Introduction to Engineering and Design **	Animal Behavior (1/2 year)
Chemistry Regents	Principles of Engineering **	Anatomy & Physiology (1/2 year)
Chemistry Honors	Introduction to Science Research **	Computer Science – Coding
	Bioethics (1/2 year)	Computer Science - Principles
11 th GRADE		
Core Courses	Electives (Taken in Combination with a Core Course)	
Earth Science Regents	Principles of Engineering **	Bioethics (1/2 year)
Chemistry in the Community	Computer Integrated Manufacturing **	Animal Behavior (1/2 year)
Chemistry Regents	Introduction to Science Research **	Anatomy and Physiology (1/2/ year)
Chemistry Honors	Intermediate Science Research **	Astronomy (1/2 year)
PhyTech	Forensic Science Honors **	Meteorology and Climate (1/2 year)
Physics Regents	Advanced Geology Honors **	Computer Science – Coding
Physics with AP Science	AP Chemistry **	Computer Science - Principles
	AP Physics **	AP Computer Science **
	AP Biology **	AP Computer Science Principles **
	AP Environmental Science **	
12 th GRADE		
Any of the following courses are available to senior students that have successfully completed three core courses.		
Earth Science Regents	AP Biology **	Bioethics (1/2 year)
Chemistry in the Community	AP Environmental Science **	Animal Behavior (1/2 year)
Chemistry Regents	Advanced Geology Honors **	Anatomy and Physiology (1/2/ year)
AP Chemistry **	Forensic Science Honors **	Astronomy (1/2 year)
PhyTech	Principles of Engineering **	Meteorology and Climate (1/2 year)
Physics Regents	Computer Integrated Manufacturing **	AP Computer Science **
Physics with AP Science	Engineering Design and Development **	AP Computer Science Principles **
AP Physics **	Advanced Science Research **	

A three-year sequence of core science courses is required for graduation from Fox Lane High School. Please check individual course prerequisites as certain courses may require prior coursework, teacher recommendation or approval of the department coordinator. Students may enroll in multiple core science courses concurrently with approval.

** Science/Technology courses that have the potential to earn college credit. **



Life Sciences

Living Environment Regents:

Living Environment at Fox Lane High School is a full year course open to 9th-12th graders interested in Biology. The course follows the New York State core curriculum, while offering a comprehensive study of how organisms function and interact with each other and their environment. The course has a mandatory laboratory component that includes data collection and in-depth analysis. Content is presented in a variety of ways, including relevant, problem-based learning units. This format lends itself to active and worthwhile classroom discussions and promotes highly developed student work.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: None Target Audience: 9 grade students. [BACK TO TOP](#)

Living Earth:

The Living Earth Course will appeal to students interested in authentic environmental problems ranging from local issues to global challenges. This course is problem-based and interdisciplinary – emphasizing the intersection of Earth science and Life science concepts and themes while preparing students to take the Living Environment Regents exam *only*. Units are designed around problems (i.e. Cancer, Global Warming, Starvation/Hunger, etc.) rather than content topics (i.e. Evolution, Ecology, etc.). As such, students should be comfortable drawing connections between new information that is introduced in a non-linear or spiraling format. This course culminates in the Living Environment Regents exam and satisfies a Life Science credit for graduation.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: None Target Audience: 9 grade students. [BACK TO TOP](#)

AP Biology:

AP Biology is a college-level course designed for high school students with a keen interest in biology. Students gain enduring understandings of biological concepts and the scientific evidence that supports them. Student-directed, inquiry-based laboratory experiences are extensively focused so that students model the behavior of scientists at work. Units of study include Biochemistry, Cells, Cellular Communication, Bioenergetics, Heredity, Molecular Genetics, Evolution, Biological Diversity, Animal Diversity, Animal Form/Function and Ecology. This course culminates in a dissection lab practicum investigating mammal anatomy and physiology.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: Successful completion of 2-3 full year science courses Target Audience: 11-12 grade students. [BACK TO TOP](#)

Anatomy and Physiology:

This course is designed for high school students interested in pursuing a wide variety of biomedical careers such as medicine, nursing, veterinarian medicine, nutrition and exercise physiology. Students will gain an understanding of the human body and how it works. Medical case studies will be used to emphasize clinical applications and disease conditions. Units of study include the Cardiovascular System; Lymphatic and Immune Systems; Digestive System; Respiratory System; and Urinary System. This half year, non-lab course culminates in a final exam.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: Successful completion of 1-2 full year science courses. Target Audience: 10-12 grade students. [BACK TO TOP](#)

Animal Behavior:

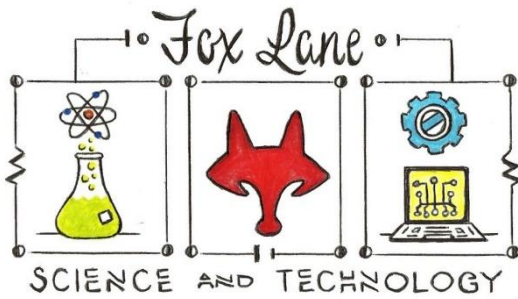
Why are dogs often referred to as “Man’s best friend?” How do female sea turtles know to return to the same beach where they hatched to lay their own eggs? These are just a few of the questions that are investigated in the course - Animal Behavior. Animal Behavior is ½ year, non-lab, introductory course that probes to answer how animals think and learn. Students investigate patterns of behavior by comparing a broad spectrum of species from the animal kingdom. The course will include guest speakers and field work to examine topics ranging from communication and intelligence; to parental care and social bonding.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: Successful completion of Living Environment or Living Earth Target Audience: 10-12 grade students. [BACK TO TOP](#)

Bioethics:

Many of the current moral issues have their foundation in technology therefore it is necessary that we focus our attention on bioethics. Bioethics is an interdisciplinary subject that intersects the life sciences, ethics and society. This course will investigate the history of bioethics and will focus on the legal, moral and ethical dilemmas that have been created by advances in science and technology. Our society, including our legal system, has not been able to keep pace with these changes. What was once black and white has now become a large gray area in decision making. The purpose of this course is to get students to think critically and effectively. Students will be taught HOW to think rather than WHAT to think. The format of the course will be based on a case study approach to investigate current bioethical dilemmas.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: Successful completion of Living Environment or Living Earth Target Audience: 10-12 grade students. [BACK TO TOP](#)



Geosciences

Earth Science Regents:

The study of earth science incorporates several disciplines including geology, astronomy, meteorology, and oceanography. The students will investigate and discuss relevant topics in earth science while using hands-on experiments in the lab to complement our class work. Some of these lab experiences include the use of our school planetarium, creating river systems in stream tables, observing and recording weather data, identifying rocks and minerals, and calculating the epicenter of an earthquake.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: None Target Audience: 10-12 grade students. [BACK TO TOP](#)

Astronomy:

During this half year course, students will be able to apply knowledge of observational astronomy. This course will focus on the exciting NASA discoveries of the past few years and the future of the space program. Students will have the opportunity to use a new generation solar telescope and participate in evening star parties using telescopes at Pound Ridge Reservation. With the use of these telescopes, students can observe stars, star clusters, planets and their moons, nebulae, and galaxies. Students will investigate how astronomers interpret the light received from distant celestial objects; the Sun as a typical star and how its future will affect ours; and our modern understanding of how stars work and how they change with time. We will discuss, in detail, our solar system and the discovery of exoplanets. Students will have the opportunity to participate in a mock mission to Mars or the Moon at The Challenger Space Center.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: Successful completion of 2-3 full year science courses. Target Audience: 11-12 grade students. [BACK TO TOP](#)

Meteorology and Climate:

During this half year course, students will be able to apply knowledge of atmospheric trends to solve a variety of problems and create inferences to future weather and climate events. Students will investigate various types of severe weather and how they impact human lives. Students will also examine factors that have influenced climate change in the Earth's past and discuss the likelihood of future climate change. There is an opportunity for students to participate in a hiking trip to Westmoreland Sanctuary to learn how climate change has played a role in our local environment.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: Successful completion of 2-3 full year science courses. Target Audience: 11-12 grade students. [BACK TO TOP](#)

Advanced Geology:

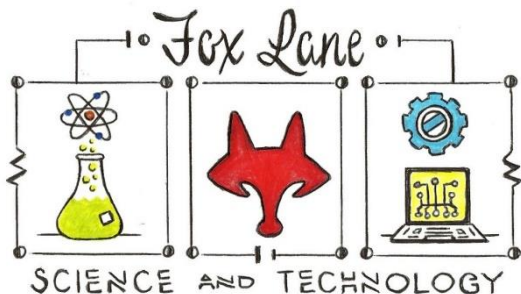
Students enrolled in Advanced Physical Geology will explore how the Earth works and why a comprehensive understanding of the Earth is critical to effectively managing the many environmental issues facing our world today. This lab-based course offers a strong focus on the unifying concept of plate tectonics including earthquakes, volcanoes and mountain-building as well as mineral resources, groundwater contamination and surface processes. Advanced Physical Geology is a dual-credit course that allows students the opportunity to earn 4 credits through SUNY Oneonta. In addition, students immerse themselves in a culminating independent research project during the final 4 weeks of the school year.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: Successful completion of 2-3 full year science courses. Target Audience: 11-12 grade students. [BACK TO TOP](#)

AP Environmental Science:

Environmental concerns plague our growing population, but knowledge is the key to living healthy, productive and sustainable lives. If you want to understand the complex science behind the environmental challenges facing our world and investigate new and evolving solutions, AP Environmental Science may be the course for you. The AP Environmental Science course is an integrated multidisciplinary capstone course for students interested in understanding the complex nature of environmental problems. Topics of study include a broad range of integrated disciplines ranging from environmental ethics, politics, economics, and law to forestry, ecology, evolution, agriculture, pollution, toxicology, and energy. The course is designed with a strong laboratory component including several opportunities for field investigation throughout the year. Opportunities for open-minded discussion and a respectful exchange of ideas permeate an evidence-based approach to evaluating the scientific principles and concepts of environmental science. The course culminates with a cumulative final exam and the AP Examination in May.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: Successful completion of 2-3 full year science courses. Target Audience: 11-12 grade students. [BACK TO TOP](#)



Chemistry

Chemistry in the Community:

How can chemistry help us to make decisions? In this chemistry course students will explore the essential concepts of chemistry as they work to find solutions to problems confronting our lives, our community, and the world. The five units of the course are designed to put students in the driver's seat as they learn the chemistry they need to grapple with issues related to nuclear disasters, product design, transportation, and local water contamination. Students will use technology to work collaboratively with classmates and have the opportunity to identify compelling problems that they will investigate through research and experiments of their own design.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: None Target Audience: 11-12 grade students. [BACK TO TOP](#)

Chemistry Regents:

Chemistry is the central science concerned with the properties and changes that materials undergo. The study of Chemistry helps us understand the natural world and has allowed the human race to achieve unbelievable feats. Everything you can touch, taste or smell is a chemical. Chemistry is the explanation for everyday things like why laundry detergent works better in hot water or why simple ingredients can radically alter texture and flavors of your favorite foods. Even our existence is the result of a delicate balance of chemical reactions. Throughout the duration of this course, instruction will focus on the development of scientific ideas, the nature of science and the direct implications of chemistry has on our lives. The topics covered include: matter and energy, atomic structure, bonding, the periodic table, mathematics of chemistry, kinetics and equilibrium, acids and bases, reduction oxidation reactions, nuclear chemistry and organic chemistry.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: None Target Audience: 10-12 grade students. [BACK TO TOP](#)

Chemistry Honors:

Why do you use soap to clean your hands? Why do you feel cold when you get out of a pool? How do fireworks produce such great colors? These are some of the many questions that we will explore in Honors Chemistry. Honors Chemistry is the study of the atoms and molecules that are the building blocks of our universe. Understanding how molecules form and how they interact with one another will help us understand and explain many of the observations in our daily lives. Chemistry is a lab based science. While we will be exploring similar topics to those covered in Regents Chemistry, we will be doing so in more depth and at a faster pace. This will require you to be self-motivated and committed. This class is meant for students with a strong science and math background and interest.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: None Target Audience: 10th grade students. [BACK TO TOP](#)

AP Chemistry:

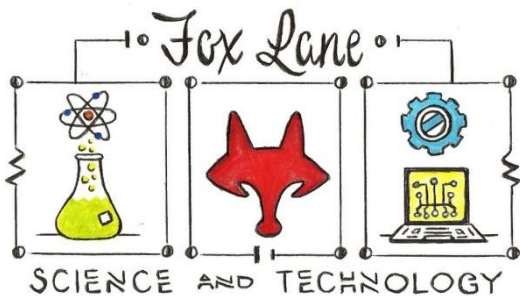
AP Chemistry is offered as a second year college-level chemistry course. The majority of students will have taken Regents or Honors chemistry prior to taking AP chemistry. AP chemistry uses a double period weekly for laboratory investigations. The course is very dependent on solving equations. Students who are hard-working that feel an intrinsic satisfaction for learning difficult concepts will appreciate the rigor of this course. This is a college level, general chemistry course. Topics include chemical bonding, stoichiometry, states of matter, principles of thermodynamics, chemical kinetics, equilibrium, electrochemistry, qualitative and quantitative analysis, nuclear structure and radioactivity. The course culminates with a demanding final exam and the AP Chemistry test in May.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: None Target Audience: 11-12 grade students. [BACK TO TOP](#)

Forensic Science:

SUPA Forensic Science is a college bearing, non-lab based science elective. The course has been designed for high school seniors looking to challenge themselves prior to the rigors of the full time college experience. The primary focus of this course is to study the many ways in which science assists the criminal justice system in maintaining order within our society. Topics discussed include: the basics of the criminal justice system, crime scene investigation, DNA analysis, fingerprint analysis, Forensic psychology, blood stain pattern analysis, handwriting analysis, forensic pathology, and many other areas of forensic science. Students taking this course can expect to perform hands-on activities, conduct research, investigate case studies, and engage in class discussions and presentations. Examples of activities include an in depth investigation into the O.J. Simpson murder trial, a virtual autopsy, enhancing latent fingerprints lab, blood stain pattern analysis lab, forensic anthropology lab, and guest speakers in relevant fields of forensic science and law. Past student surveys for this course have indicated that students have generally had very positive experiences. They have reported that they have enjoyed the class, have felt more prepared for college, and they have, in most instances, walked into college with four college credits already under their belt. This class is a great way to get a taste of the college experience in the comforts of a familiar high school classroom.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: Successful completion of Chemistry (R or H). Target Audience: 12 grade students. [BACK TO TOP](#)



Physics

Physics Regents:

Physics is the study of how matter and energy relate to each other, and how they affect each other over time and through space. This course will help students acquire factual knowledge within a conceptual and thematic framework, practice experimental design and interpretation, work collaboratively with other students in challenging labs, class activities and projects including the annual rubber-band powered car competition, and develop critical thinking skills. This is a rigorous course that requires a disciplined work ethic. The course culminates with a demanding New York State Regents Examination, which includes the completion of a minimum of 20 laboratory hours with written reports to the satisfaction of the instructor to qualify for the Regents Examination.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
 Prerequisites: Algebra 2 or concurrent Target Audience: 11-12 grade students. [BACK TO TOP](#)

Physics with AP Science:

This Physics course follows a demanding curriculum that will move at a rapid pace and requires a commitment to study at home on the part of the student. This course is for students who have a keen interest in studying science/engineering and may be thinking about pursuing those endeavors in college and who plan to enroll concurrently in an AP Science this year, and possibly enrolling in AP Physics the following year. This course will help students acquire factual knowledge and analytical skills within a conceptual and thematic framework, practice experimental design and interpretation, work collaboratively with other students in challenging labs, class activities and projects, and develop critical thinking skills. This course culminates with a demanding local final.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
 Prerequisites: Chemistry & Algebra II Regents Exam (80 or higher); Co-requisites: AP science class & Precalc Target Audience: 11th grade students
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AP Physics:

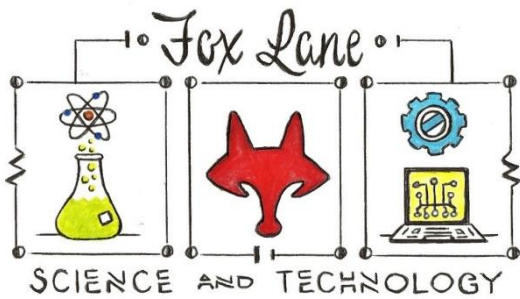
The AP Physics course at Fox Lane is a demanding curriculum – college level study of Physics/Mechanics using experimental and mathematical modeling, including the use of differential and integral calculus. Here at Fox Lane, AP Physics students develop a deep understanding of the foundation principles of classic mechanics. In addition, they will apply these foundation principles to complex lab and other thoughtful hands-on and minds-on scenarios that combine multiple aspects of physics rather than present concepts in isolation. AP Physics has the demands expected in a college course; however, it is enveloped with the support you expect at Fox Lane: quality instruction aware of diverse learning styles, support in class and after school, and communication with students and their parents. Students will culminate their experience by sitting for the AP Physics C test in Mechanics in May.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
 Prerequisites: Physics or summer placement exam Target Audience: 11-12 grade students. [BACK TO TOP](#)

PhyTech:

Students taking this course will develop an appreciation and understanding of physics and the scientific method by engaging in highly relevant problem-based learning. Units focus on a variety of topics including: the physics of driving, aerodynamics, and rocketry. Students will learn to solve problems using critical thinking skills they will need in the 'real world' beyond high school and they will come to recognize the benefits, as well as the limitations, of science and technology.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
 Prerequisites: None Target Audience: 11-12 grade students. [BACK TO TOP](#)



Engineering

Introduction to Engineering and Design:

Have you ever wondered how to design something new or draw out an idea to show your friends? Stop wondering and do it! Introduction to Engineering Design students use AutoDesk Inventor, our state-of-the-art 3D design software, while discovering the role of an Engineer in taking an idea from the design process to product testing to manufacturing or production. You can even produce an incredible, working prototype of your project with our 3D printer. IED students work on projects, activities, and problems that are not only interesting, they also have direct global and human impacts. In IED you'll work in teams to design and improve products, document your solutions, and communicate your solutions to others.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: None Target Audience: 9th grade students. [BACK TO TOP](#)

Principles of Engineering:

Principles of Engineering is offered as our second year course in Engineering. Taking the first year course in the sequence, Introduction to Engineering Design, is not a prerequisite for this class. This course is designed to enhance general technological literacy and expose students to some of the major concepts they will encounter in a college engineering course of study. Students have an opportunity to investigate engineering and high-tech careers and to develop skills and understanding of engineering concepts. Students employ engineering and scientific principles in the solution of design problems. Students advance their problem-solving skills and apply their knowledge of research and design to create solutions to various challenges – including several different robot building and programming challenges.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: None Target Audience: 9-10 grade students. [BACK TO TOP](#)

Computer Integrated Manufacturing:

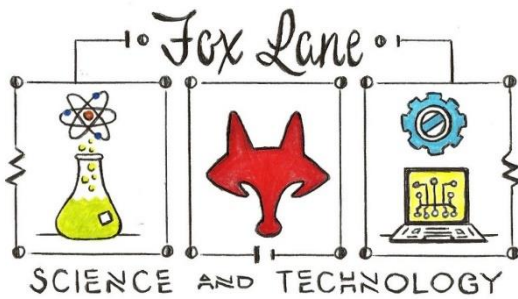
Do you want to learn how things are made in a large scale manufacturing facility? How does a global shipping company sort and mail millions of packages? Is the process for making a water bottle the same as making a musical instrument? How are assembly lines designed and automated? Computer Integrated Manufacturing students grow their knowledge of the history, principles, and processes of manufacturing, then design and build their own automated manufacturing system while factoring in safety, quality, cost, and efficiency. CIM students use technologies in their projects that have revolutionized manufacturing: computer modeling, Computer Numeric Control or CNC technology, Computer Aided Manufacturing or CAM software, robotics, and flexible manufacturing systems. If you enjoy building and programming VEX robots, CIM is for you!

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: None Target Audience: 10-12 grade students. [BACK TO TOP](#)

Engineering Design and Development:

Have you ever said: "Don't you hate it when...?" Here is your chance to do something about it! Working as part of a team, Engineering Design and Development students design solutions to a technical problem of their choosing. You'll be able to research, design, test, and construct a solution then present your design to industry partners. EDD students use what they have already learned in other Engineering classes to guide them through the process of design and product development. Who knows? You and your team might solve a real world problem that has stumped other engineers!

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: None Target Audience: 11-12 grade students. [BACK TO TOP](#)



Computer Science

Computer Science – Principles:

This is a first year course in computer science formally called Introduction to Computer Science. The course designed to introduce students to the breadth of the field of computer science. Rather than focusing the entire course on learning particular software tools or programming languages, the course is designed to focus on the conceptual ideas of computing. The goal of this class is to develop computational thinking practices of algorithm development, problem solving and programming within the context of problems that are relevant to the lives of today's students. Students will also be introduced to topics such as interface design, limits of computers and societal and ethical issues.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:

Prerequisites: None

Target Audience: 9-12 grade students.

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Computer Science – Coding:

This is a course in computer science that explores a deeper understanding of how computers and their peripherals function. As an introduction to programming, students will use drag and drop software to have robots complete real life tasks. There will be a focus on animation software and the development of programming practices culminating in learning the basics of Java. The course concludes with discussion of topics such as gaming, virtual reality, 3D printing and other real life applications. Students will be prepared to take the AP Computer Science ad AP Computer Science Principles courses during the following year.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:

Prerequisites: None

Target Audience: 9-12 grade students.

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AP Computer Science Principles:

This course was developed to address a critical need for a broader range of students to gain exposure to computing in high school. Almost every field today – from the arts and media to lab sciences –requires an understanding of computing. Multidisciplinary in nature, the course teaches students to analyze problems, use creative thinking, and collaborate to investigate solutions to real-world issues using computing. More specifically, the course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. AP Computer Science Principles will help students develop a thorough grasp of the computing foundations and concepts relevant to college and career.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:

Prerequisites: None.

Target Audience: 10-12 grade students.

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AP Computer Science:

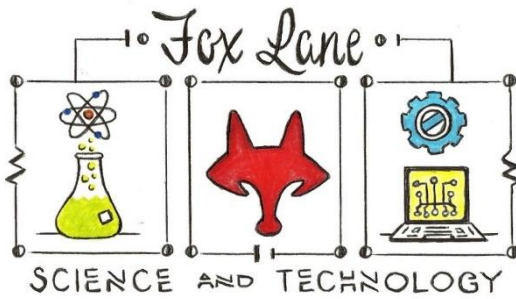
This is a course in computer science using the Java programming language and the Grid World case study. This course deals with complex data structures and algorithms. The course also prepares students to take the Advanced Placement Computer Science Exam. After the AP Exam, topics related to real world applications will be discussed. These topics may include desktop applications or game programming.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:

Prerequisites: Successful completion of prior computer science course or teacher approval.

Target Audience: 11-12 grade students.

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Science Research

Introduction to Science Research:

Want to make a difference in the world of science? Interested in pursuing a career in a STEM (science, technology, engineering, or mathematics) field? Or perhaps you'd like the opportunity to work with a leading scientist to research Alzheimer's disease, program a functional web application for Astrophysicists, identify the best treatments for certain types of cancer, or look into the impact of climate change on animal populations? Fox Lane High School Science Research is a 3-year program that allows students to independently pursue a topic of their own interest. Students will attend class periods that meet every other day and biweekly meetings with the Science Research teacher to set goals and monitor progress. Students will learn, use, and strengthen, skills in the areas of authentic research, time management, communication and public speaking, the presentation of research ideas, technical writing, graphic design, and more applicable to other subject areas. Students will also reach out to and connect with a professional scientist mentor in their field in order to conduct research over the summer. Students have been mentored at institutions such as NYU, Columbia, Yale, Harvard, New York Medical College, Mount Sinai, Albert Einstein College of Medicine, Rockefeller University, and many others. Starting the summer between sophomore and junior year, students are eligible to earn 2 college credits from SUNY Albany. Students who complete the 3-year program can graduate with a total of 12 college credits.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: Parental and Instructor Permission, completion of summer assignment. Target Audience: 10-11 grade students. [BACK TO TOP](#)

Intermediate Science Research:

Students who complete their first year of the Science Research Program move on to Intermediate Science Research. This is where all of the summer research comes together in the form of a research paper and poster which students then enter in local, regional, and international science competitions and symposia. With the guidance of the student's scientist mentor and Science Research teacher, students are prepared to present their research at events such as the Westchester-Rockland Junior Science and Humanities Symposium, the Westchester Science and Engineering Fair, the International Sustainable World, Energy, Engineering, and Environment Project Olympiad, and the international Genius Olympiad. Students can qualify for elite events such as the Intel International Science and Engineering Fair, often referred to as the Olympics of Science. Our students have earned many awards, honors, and scholarships, and have even been invited to present their research at international conferences or been interviewed on the radio. Over the summer between junior and senior year, students will either conduct a study that they planned and developed during the school year. Students can earn a total of 6 college credits from SUNY Albany in the course of their junior year.

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: Intro to Science Research, completion of summer assignment. Target Audience: 11-12 grade students. [BACK TO TOP](#)

Advanced Science Research:

The third year of Science Research is the program's capstone experience. In this course, students make use of all acquired skills and knowledge of their topic of choice by pulling together their summer work into a final authentic research project in the form of a technical paper, poster, and digital presentation. Students will again participate in local, regional, and international science competitions and symposia including the prestigious Regeneron Science Talent Search (formerly the Westinghouse and then the Intel Science Talent Search) and the Siemens Competition. Conducting research at a graduate level and beyond, students have been invited to become published authors in peer reviewed journal articles, present at international conferences, and even earn paid summer internships before their freshman year of college. Students are eligible for 4 college credits from SUNY Albany for their senior year. You are the future of science!

½ Year: Full Year: Full Year w/ Lab: Regents Exam: Honors: Potential College credit: Summer Assignment:
Prerequisites: Intro & Intermediate Science Research, completion of summer assignment Target Audience: 12 grade students.

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