



# ENVIRONMENTAL SCIENCES

From the atmosphere to the earth, scientists in this field of study research the different areas that affect the well-being of the population and the world we live in. Whether it's a food scientist who works to ensure the soil is healthy enough to produce quality products, or an environmental scientist working to eliminate various pollutants that could damage the soil, these professionals are all connected to cultivating an environment where both people and sustainable resources can thrive.



## Career Pathway: Agricultural & Food Scientists



From the health of the soil that food comes from to the health of the bodies that consume it, agricultural and food scientists study it all. Working for various farms, production companies, and processing plants, they research ways of improving food quality and safety.



## **Colleges & Universities to Consider**

Auburn University | California Polytechnic State University, San Luis Obispo | Cornell University
Ohio State University | Pennsylvania State University | Purdue University | Texas A&M University
University of California, Davis | University of Florida | Virginia Polytechnic Institute and State University

\$64,020
MEDIAN ANNUAL SALARY

\$46,000 AVERAGE STARTING SALARY

**+7%**GROWTH BY 2026



### Career Pathway: Environmental Scientists & Specialists



Environmental protection is a main focus for this group of scientists. With degrees in natural science, or another related field, environmental specialists work with different industries and policymakers to identify sources affecting the environment and human health. They work together to eliminate hazardous sources and help restore polluted areas.



#### **Colleges & Universities to Consider**

Colby College | Colorado College | Miami University (OH) | Pomona College | Sewanee: The University of the South | Sonoma State University | SUNY College of Environmental Science and Forestry University of Hawaii at Hilo | University of South Florida | University of Vermont

**\$71,130**MEDIAN ANNUAL SALARY

\$36,000
AVERAGE STARTING SALARY

**+8%**GROWTH BY 2026



## Career Pathway: Urban & Regional Planners



Before a community is born, there is usually a plan. Urban planners develop programs to turn land into thriving communities that accommodate a growing population. Working with local officials, commissions, and neighborhoods, planners work to revitalize an area with physical facilities and initiatives to support the residents and visitors.



#### **Colleges & Universities to Consider**

Arizona State University | East Carolina State University | Iowa State University | Michigan State University | Rutgers University | University of British Columbia | University of California, Irvine University of Massachusetts, Amherst | University of Texas at Arlington | University of Virginia

\$73,050
MEDIAN ANNUAL SALARY

\$48,000
AVERAGE STARTING SALARY

**+11%**GROWTH BY 2026



## ENVIRONMENTAL SCIENCES

## **Laurel Springs Core Course Offerings**

#### **AP Calculus AB**

AP Calculus AB is a comprehensive introduction to calculus that is comparable to one semester of college-level, introductory calculus. The material helps students understand the concepts of calculus and applications to the study of science, business, and engineering.

#### **AP Calculus BC**

AP Calculus BC is a comprehensive introduction to calculus that is comparable to two semesters of college-level, introductory calculus. The course moves at a faster pace as compared to AP Calculus AB. This course helps students understand the concepts of calculus and applications to the study of science, engineering, and advanced mathematics.

#### **AP Computer Science A**

Develop the skills to design, develop, and analyze algorithms to correctly solve specific problems. Understand of the basic hardware and software components of computer systems and the responsible use of these systems that make programs understandable, adaptable, and—when appropriate—reusable.

#### **AP Computer Science Principles**

Explore how computing and technology can impact the world. With a unique focus on creative problem solving and real-world applications, this course introduces students to the foundational concepts of computer science and explores the impact computing and technology has on our society.

#### **AP Environmental Science**

This course provides students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world. Identify and analyze various environmental problems, and examine alternative solutions for resolving or preventing these issues.

#### **AP Human Geography**

The AP Human Geography course is designed to provide college level instruction on the patterns and processes that impact the way humans understand, use, and change Earth's surface. Students use geographic models, methods, and tools to examine human social organization and its effect on the world in which we live.

#### Calculus

Calculus introduces students to universal concepts in the graphing of functions and optimizations. Students then apply derivatives to solve real-world problems. The course continues with the fundamental theorem of calculus and various applications of integration.

#### **Earth Science**

Earth Science is an introductory course that begins with a discussion about the nature of science, the processes of science, and instruction on how to carry out scientific investigations in the lab and the field. From the solar system to the Earth's tectonic, atmospheric, and oceanic systems, learn how human activities impact the atmosphere and the ocean.

#### **Economics**

This course serves as a survey of the basic principles concerning production, consumption, and distribution of goods and services within the free enterprise system. Students examine the rights and responsibilities of consumers and businesses, analyze the interaction of supply, demand, and price, and study the role of financial institutions. Critical thinking skills are needed to create economic models, evaluate activity patterns, and apply skills to personal financial matters.

#### **Marine Science**

In the marine science course, students delve deep into Earth's bodies of water and study geologic structures and how they impact the oceans. Discover just how much our oceans and lakes affect climate, weather, and seasonal variations. Explore the relationships among living organisms and see how they are affected by our oceans currents, tides, and waves.

#### **World Cultures**

From the six essentials of geography to a broad survey of the Earth's structure, hydrosphere, and climates, students discover the influence geography has on economic activities, human culture, and history. Then they investigate the impact of human activity on the environment and consider the implications.

## **Laurel Springs Elective Course Offerings**

#### **Agriscience 1**

Explore the importance of agriscience from learning about its history and contribution to civilization to growing plants and designing garden spaces. This course completes the picture of how agriscience continues to develop the world. Special attention is paid to safety, promoting a healthy environment, and designing for sustainability.

#### **Agriscience 2**

Science and technology are revolutionizing many areas of our lives. From aquaculture to genetic engineering, agriscience is finding new ways to better produce and manage plants, animals, and other natural resources. This course builds on existing knowledge of plant and animal science and delves deeper into important areas of soil science and weed management.

## Biotechnology: Unlocking Nature's Secrets

In this course, students explore the history and challenges of biotechnology, including early attempts at food preservation, the development of antibiotics, and changes to food crops around the world. Research expands into new biotechnologies and how they are changing the world we live in.

## **Concepts of Engineering and Technology**

Learn more about engineering and technology careers and what skills and knowledge are needed to succeed in these fields. Explore innovative and cutting-edge projects that are changing the world, and examine the design and prototype development process.

## Great Minds in Science: Ideas for a New Generation

Today, scientists, explorers, and writers are working to answer all of life's questions and working on problems that may revolutionize our lives. This course focuses on 10 of today's greatest scientific minds. Each unit takes an in-depth look at one of these individuals, and shows how their ideas may help to shape tomorrow's world.

#### **Human Geography: Our Global Identity**

How do language, religion, and landscape affect the physical environment? Explore the diverse ways in which people affect the world around them and how they are affected by their surroundings.

## Introduction to Forestry and Natural Resources

Forests and other natural resources play an important role in our world, from providing lumber and paper products to providing habitat for birds and animals. In the Introduction to Forestry and Natural Resources course, learn more about forest ecology, management, and conservation. Discover the related careers and important issues facing forestry professionals today.

## Manufacturing: Product Design and Innovation

Have you ever wondered how the products you buy make it to the store shelves? There are many types of manufacturing systems and processes used to create the products we buy every day. Discover the various career opportunities in the industry including those for engineers, technicians, and supervisors. Then plan your own manufacturing process for a new product or invention!

#### Nutrition

A comprehensive study of nutritional principles and guidelines. Students gain important knowledge and skills to aid them in attaining and maintaining a healthy and nutritious lifestyle.

## Principles of Agriculture, Food, and Natural Resources

In Agriculture and Natural Resources, students learn how food travels from farm to table. The course begins with the history of agriculture through animal husbandry, plant science, and managing our use of natural resources and ends with a broad understanding of the subject matter.

#### **Renewable Technologies**

In the Introduction to Renewable Technologies course, students learn about this cutting-edge field and the exciting new technologies that are making it possible. New ways of generating and storing energy are explored, from biofuels to high-capacity batteries and smart electrical grids. Examine the environmental and social effects of renewable technologies and discover how people's energy decisions impact policies.

#### **Environmental Club**

**CLUB** | As members of a global community, there is nothing more important to many of Laurel Springs students than the environment. Laurel Springs is proud to have been the recipient of the United Nations Global Environmental 500 Award. This club is for those who love nature, Earth, and seek to find a closer connection with Earth, explore environmental literacy and environs; individually and as a community.