

**JAMESTOWN COMMUNITY COLLEGE**  
**State University of New York**

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**INSTITUTIONAL COURSE SYLLABUS**

**Course Title:** Intro to Environmental Science lecture

**Course Abbreviation and Number:** BIO 1551

**Credit Hours:** 3

**Course Type:** Lecture

**Course Description:** This course offers an exploration of environmental science, with an emphasis on the historical development of environmental issues, global biomes, and the complex interactions between species and their physical environment- air, water, and soil. Through a combination of lectures, discussions, and hands-on activities, students will investigate key topics such as biological resources, population dynamics, toxicology, energy use and sustainability, and land use management. Designed for both science and non-science majors, this course provides a comprehensive foundation in understanding and addressing contemporary environmental challenges.

Eligibility: ENG 1510 without supports or Corequisite: ENG 1510 with supports; Corequisite: MAT 0550 or Eligibility: college level mathematics.

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**General Education Requirements Met**

**SUNY**

Natural Sciences

**JCC**

Global Perspectives

Scientific Reasoning

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**Student Learning Outcomes:**

Students who demonstrate understanding can:

1. Analyze and explain the interrelationships between organisms and their environment and evaluate the impact of human activities on ecological systems.
2. Demonstrate awareness of global issues and the impact of individual and collective decisions on life around the world. [JCC Gen Ed – Global Perspectives]
3. Demonstrate an understanding of the methods scientists use to explore natural phenomena, including observation, hypotheses development, measurement and data collection, experimentation, evaluation of evidence, and employment of data analysis or mathematical modeling. [SUNY Gen Ed – Natural Sciences SLO 1]
4. Application of scientific data, concepts, and models in one of the natural sciences. [SUNY Gen Ed – Natural Sciences SLO 2]

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**Topics Covered:**

- Environmental Problems
- Science, Matter, Energy, and Systems
- Ecosystems: What are they and how do they work
- Biodiversity and Evolution
- Species Interactions, Ecological Succession and Population Control
- The Human Population and Urbanization
- Climate and Biodiversity
- Sustaining Biodiversity: Saving Species
- Sustaining Biodiversity: Saving Ecosystems
- Food Production and the Environment
- Water Resources and Water Pollution
- Geology and Nonrenewable Mineral Resources
- Energy Resources
- Environmental Hazards and Human Health
- Air Pollution, Climate Change, and Ozone Depletion
- Solid and Hazardous Waste
- Environmental Economics, Politics, and Worldview

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**Information for Students**

- Expectations of Students
  - [Civility Statement](#)
  - [Student Responsibility Statement](#)
  - [Academic Integrity Statement](#)
- [Accessibility Services](#)  
Students who require accommodations to complete the requirements and expectations of this course because of a disability must make their accommodation requests to the Accessibility Services Coordinator.
- [Get Help: JCC & Community Resources](#)

- [Emergency Closing Procedures](#)
- Course grade is determined by the instructor based on a combination of factors, including but not limited to, homework, quizzes, exams, projects, and participation. Final course grade can be translated into a grade point value according to the following:

A=4.0	B+=3.5	B=3	C+=2.5	C=2	D+=1.5	D=1	F=0
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- Veterans and active duty military personnel with special circumstances (e.g., upcoming deployments, drill requirements, VA appointments) are welcome and encouraged to communicate these to the instructor.

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**Effective Date:** Spring 2026