

# ISYE 4501: Energy, Efficiency and Sustainability

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## Course Information

Instructor: Constance Crozier (constance@gatech.edu)

Course Prefix and Number: ISYE 4501

Term: Fall 2026

## Course Description

Analysis and modeling of energy production and use, material and energy efficiency, sustainability, and cost for systems, products, and services.

## Course Learning Outcomes

By enrolling in this course, students will:

- Understand energy systems and sustainability principles
- Analyze energy production and consumption models
- Evaluate efficiency and cost trade-offs in systems
- Apply quantitative tools to sustainability problems
- Communicate findings through presentations and projects

## Required Course Materials

No required textbooks are specified. Students are expected to have background knowledge in introductory physics, optimization, and basic coding skills.

## Grading Policy

Projects: 40%

Topic Presentation: 5%

Midterms: 30%

Final: 25%

### **Attendance Policy**

Attendance is expected. If attendance drops significantly, attendance may become mandatory for the remainder of the semester.

### **Academic and Research Honesty/Integrity Statement**

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to adhere to the Academic Honor Code and maintain the highest ethical standards.

### **Accommodations for Students with Disabilities**

Students requiring accommodations should contact the Office of Disability Services as soon as possible to obtain an accommodations letter and coordinate with the instructor.