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## Co-requisites

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CON 202/BIO 221

## First Year Experience/Capstone Designation

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**This course DOES NOT satisfy the outcomes applicable for status as a FYE or Capstone.**

## SUNY General Education

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**This course is designated as satisfying a requirement in the following SUNY Gen Ed category**

None

## FLCC Values

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### **Institutional Learning Outcomes Addressed by the Course**

Vitality, Inquiry, Perseverance, and Interconnectedness

## Course Learning Outcomes

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### **Course Learning Outcomes**

1. Exercise the steps of scientific method (e.g. experimental design, collecting observations, building hypotheses, analyzing and communicating results).
2. Integrate results from peer-reviewed studies to advance comprehension of laboratory activities and independent research.
3. Execute standard ecological procedures (e.g. plant and animal sampling techniques, data analyses, spreadsheet usage, statistical analyses).

## Outline of Topics Covered

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### I. Population Ecology

a. Population Dynamic Studies (e.g. life history / cohort tables, mark-recapture experiments, dendrochronology studies, intra-specific competition experiments)

### II. Community Ecology

a. Field Sampling of Different Communities

b. Species Interaction Experiments (e.g. interspecific competition experiments, predator-prey studies)

c. Species Richness / Biodiversity Sampling

### III. Ecosystem Ecology

a. Biogeochemical Studies (e.g. carbon flow experiments, nutrient cycling studies)