

# Master of Arts in Teaching Biology

## OVERVIEW

- ✦ For in-service teachers of grades 7-12
- ✦ Overall goals:
  - Provide additional content knowledge in biology to improve teaching proficiency
  - Increase science process knowledge (e.g. nature of science)
  - Increase biology pedagogical content knowledge - the ability to know HOW to teach particular content using research based best practices for known misconceptions and problem areas in specific subjects.
  - Provide additional professional coursework in pedagogy, curriculum development, and educational foundations
  - Provide the opportunity to use research to improve teaching effectiveness

## ADMISSION REQUIREMENTS

- Praxis II content specialization exam in Biology content, or Biology and General Science (or approved equivalent to include science content[e.g., NTE, or other Non-Ohio-State-mandated-science content test, or GRE science content area test])
- Valid Teaching Certificate/License (from any State within the United States) and 1 year teaching experience in Biology or approved related area
- Teacher Educator Dispositions Form to be completed by school administrator who has direct knowledge of applicants teaching
- Completed Application
- Application fee
- Official transcripts from all institutions attended
- 3 letters of recommendation

## DEGREE REQUIREMENTS

### **22-26 hours of graduate level biology courses including:**

- \* BIOL601 - Biological documentation techniques (1 credit)
- \* BIOL602 - Biodocumentation II (1 credit)
- \* BIOL550 - Teaching Evolution and the Nature of Science
- \* At least one seminar BIOL680/681 or Topics BIOL682/683 or Curriculum Topic Study
- \* Additional courses based on student need,
  - some courses may be interdisciplinary in nature (e.g., ENVS695 – GLOBE)
  - at least 10 hours must be formal coursework

### **9-13 hours in professional education, with the following courses required**

- EDFI677 – Contemporary Theory and Research (3 credits)
- an Education Practicum designed to meet NCATE key assessments [Practicum assessment of effective practices] (2-3 credits)
- EDTL689 – Practicum assessment of effective practices (3 credits)

### **In addition:**

- complete 35 semester hours of acceptable graduate course work with a cumulative grade point average of 3.0 or better
- Not accumulate more than 7 semester hours of credit below a “B”
- Complete the MAT within 6 years from date of first enrollment

- Write a library research paper which shall require study beyond usual course requirements and demonstrate the student's ability to interpret and apply research findings in a specific area of study (BIOL602 – may be done in conjunction with COSMOS Action Research)
- Final assessment: presentation of BIOL602 research to appropriate audience, e.g., COSMOS Inquiry series or at professional development meeting.