

## Biology Education Initial/Professional Certification

This program is for those who:

- do not hold a valid NYS Initial Teacher Certificate in Biology grades 7-12.
- are seeking the Master of Education as well as a recommendation for the Initial Teacher Certificate in Biology grades 7-12 with a grades 5-6 extension.

Subject Code & Number	Course Title	CH	SEM	GRADE
<b>Core Courses: 18-21 CH</b>				
CEP 400*/501 AND ELP 405*/548/585 OR LAI 663	Psychological Foundations of Education AND Foundations of Education or Sociological Bases of Education OR Socio-cultural Dimensions in Learning and Human Development	3-6		
LAI 474*/574	Teaching the Exceptional Learner	3		
LAI 414*/514	Adolescent Writing Across the Curriculum	3		
LAI 552	Middle Childhood/Adolescent Literacy Methods	3		
LAI 619	Teaching Science Gr 5-12	3		
LAI 698	Instructional Strategies in the Inclusive Classroom	3		
<b>Major Requirements: 6 CH (Courses listed are for illustrative purposes only. Students select coursework in consultation with an advisor)</b>				
LAI 515	Action Research to Improve Teaching and Learning	3		
LAI 533	Science Instruction Topics	3		
<b>Major Area Content Electives: 12 CH In consultation with an advisor, student selects LAI 534 and three courses from the following: (courses listed are for illustrative purposes only).</b>				
LAI 531	Science Curricula: Current Approaches	3		
LAI 532	Technology and STEM Teaching	3		
LAI 534	Assessment and Measurement in STEM Education ( <i>recommend</i> )	3		
LAI 535	Environmental Education	3		
LAI 637	Seminar for STEM Equity and Diversity	3		
LAI 639	History and Philosophy of Science for Science Teachers	3		
With advisor approval, choose graduate level courses (500 or above) in Biology or within GSE.				
<b>Clinical Experiences: 12 CH</b>				
LAI 667	Field Experience	3		
LAI 674	Seminar in Teaching	3		
LAI 668	Supervised Teaching I	3		
LAI 595	Supervised Teaching II	3		
<b>Culminating Event: 0-6 CH</b>				
Project	Programmatic Portfolio	0		
LAI 700TUT or LAI 701TUT	Individual Guidance Project or Individual Guidance Thesis ( <i>With permission of Faculty Advisor only</i> )	0-6		
<b>Total Credit Hours: 48-51</b>				

**Advisement notes:**

- Successfully completing 667 and 674 with a B- or higher satisfies the LAI 700 capstone requirement
- To progress to student teaching, students must successfully complete all previous grad work with a B- or better *at minimum*:
- Undergraduate coursework (LAI 414, CEP 400, and ELP 405) is only applicable if previously completed as a UB undergraduate student with a grade of “B-” or better.

Completion of Program

To successfully earn a Master of Education degree (EdM) from the University at Buffalo, students must:

- Earn grades of B- or better in all program coursework
- Achieve overall GPA of at least 3.0
- Meet any conditions of admission and/or continued admission
- Complete any required content area or general education courses

Applying for Teacher Certification

Students who successfully complete this program are eligible to receive initial/professional certification through the New York State Department of Education (NYSED) Approved Teacher Preparation Program pathway. For more information about the certification process, please contact the Office of Educator Preparation at 716-645-2461, <http://ed.buffalo.edu/edprep>

*For additional program information, visit:*  
<http://ed.buffalo.edu/teaching/academics/teacher-ed/biology.html>