

PROFESSIONAL MASTER OF ARTS IN ENVIRONMENTAL SCIENCE EDUCATION

Department: College of Liberal Arts and Sciences (<https://catalog.bradley.edu/graduate/liberal-arts-sciences/>)

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The PMA in Environmental Science Education is a professional master's degree for secondary and middle school (6-12) teachers who want to become teacher-leaders in middle-school/secondary level STEM education. Program objectives for the PMA in Environmental Science Education specify that the teachers will be able to gain knowledge and expertise in the following areas:

- increase the teachers' content knowledge in math, science, and engineering
- increase teachers' ability to use inquiry-based teaching of ENS in their classrooms
- improve the ENS achievement for all learners in the classrooms of the teachers
- help enrollees develop leadership skills to become teacher leaders
- teachers will understand the transdisciplinary and universal nature of environmental science.

Admission Requirements

Entrance requirements for the program include all held by Graduate Education. In addition, applicants must be a certified, secondary science teacher or a certified teacher who has completed at least 18 hours of course work in at least two different science content areas with a C or better and must pass a mathematics placement exam demonstrating proficiency in college-level algebra and precalculus skills. Regulations for the teachers to continue to be enrolled will be those established by Graduate Education and a requirement of continuous enrollment in the course of study as described at the time of admission. Other requirements to complete the program include those described by ISBE to satisfy the endorsements included in the program design. Students progress through the program as a cohort. A new cohort will begin no more than once per calendar year. Check with Graduate Education for the next cohort start date.

Degree Requirements

The program is comprised of 35 hours of graduate (600 level) courses to be completed in 36 months, the majority of which will be in environmental sciences, including related work in mathematics and technology, content, and in STEM education.

Sample Course Of Study

Course	Title	Hours
First Year		
Spring		
MST 615	Introduction to the Interdisciplinary Nature of Environmental Science	3.0
Hours		3
Summer		
MST 62x: Science through Inquiry II		3.0

MST 661	Directed Research in Environmental Science	1.0
MST 612	Introduction to Teacher Leadership	1.0
First elective in Environmental Science Education ¹		2.0
Hours		7
Fall		
MST 616	The Mathematics of Environmental Science	3.0
Hours		3
Second Year		
Spring		
MST 665	Environmental Systems I	2.0
Hours		2
Summer		
MST 666	Environmental Systems II	2.0
MST 650	Inquiry-Based Curriculum: Development & Analysis	3.0
MST 662	Research in Environmental Science	2.0
Hours		7
Fall		
MST 670	Action Research: Methods and Practice	1.0
Second elective in Environmental Science Education ¹		2.0
Hours		3
Third Year		
Spring		
MST 681	Advanced Teacher Leadership	2.0
Hours		2
Summer		
MST 680	Nature of Inquiry and Innovation	3.0
Third elective in Environmental Science Education ¹		2.0
Hours		5
Fall		
MST 685 or MST 686	Stem Education Project or Environmental Sciences Research Project	3.0
Hours		3
Total Hours		35

¹ Electives options currently include: MST 635 The Science of Global Climate Change, MST 637 Scientific Myths and Misconceptions, MST 640 Water: The Human Perspective, and MST 641 Nanotechnology in the 21st Century.