

# MS ENVIRONMENTAL SCIENCES AND MANAGEMENT

## Program Learning Objectives

Graduates of the MS in Environmental Science and Management will be able to:

1. Apply appropriate research methods for data collection, analyses, and communication of environmental science and management problems.
2. Analyze a research problem or objective/hypothesis (knowledge gap) and develop a research plan to address the problem or objective/hypothesis.
3. Execute a research plan (research design, data collection, analyses, and communication) or professional project plan to completion.
4. Communicate research or professional project outcomes effectively using oral, written and digital media communication appropriate for the discipline.
5. Synthesize and communicate core knowledge content contained within at least one environmental science sub-discipline.
6. Apply scientific knowledge to the management of environmental problems.
7. Demonstrate ethical reasoning and choose an appropriate course of action based on ethical standards in the research discipline and the research process in general, including publication and intellectual property.
8. Analyze, interpret and explain how environmental, economic, and social systems interact to promote the sustainable management of environmental and natural resources.

### Research Skills

ESCI 501	Research Planning	4
ESCI 502	Research Methods and Data Analysis	4
ESCI 581	Graduate Seminar in Environmental Sciences	2
Select one of the following options:		11
ESCI 599 & ESCI 500	Thesis and Individual Study <sup>1</sup>	
OR		
ESCI 596 & ESCI 500	Environmental Sciences and Management Project and Individual Study <sup>2</sup>	

### Environmental Sciences

ESCI 550	Advanced Environmental Science	4
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### Environmental Management

ESCI 590	Advanced Environmental Management	4
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### Approved Electives

Electives <sup>3</sup>		16
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<b>Total units</b>		<b>45</b>
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<sup>1</sup> Students in the research thesis option take 9 units of ESCI 599 and 2 units of ESCI 500.

<sup>2</sup> Students in the professional project option take 6 units of ESCI 500.

<sup>3</sup> Students in the research thesis option need to consult with their research supervisor for the selection of electives. Students in the professional project option need to consult with the graduate program coordinator for the selection of electives.