

# CERTIFICATE IN ENVIRONMENTAL STUDIES

## Department of Physics, Astronomy, Geology and Environmental Sciences

Dr. Felicia Armstrong  
Moser Hall 2080  
330-941-1385  
fparmstrong@ysu.edu

### Certificate Description

This sequence of 15 semester hours is designed to meet the needs of students and working professionals preparing for leadership roles in environmental science or management. The graduate certificate is focused in two tracks, with specialization in risk management and industrial/institutional management. This program is especially useful for careers with:

- regulatory agencies,
- industries seeking compliance with environmental regulations or focusing on environmental management systems,
- research facilities, and
- consulting firms providing state-of-the-art assessment, management, and remediation.

The program will also prepare the student to continue graduate studies leading to higher degrees.

### Admission Requirements

Applicants for this graduate certificate must meet the requirements for admission to the College of Graduate Studies at YSU.

Undergraduate courses will not qualify for the certificate, but the following may be suggested for preparation for courses above:

COURSE	TITLE	S.H.
CHEM 3764	Chemical Toxicology	3

### Certificate Requirements

To receive a certificate in environmental studies, all students must complete 15 semester hours of credit from coursework listed below. A grade point average of 3.0 or above must be achieved for all 15 semester hours of credit.

#### Risk Management Track

COURSE	TITLE	S.H.
<b>Core courses (taken by certificate candidates in both tracks)</b>		
ENST 6900	Advanced Environmental Studies	3
ENST 6901	Sources of Contamination	3
<b>Risk Management Track</b>		
ENST 6931	Ecological Risk Assessment	3
Select one of the following:		3
AHLT 5807	Epidemiology	
BIOL 5806	Field Ecology	
BIOL 6996	Topics in Ecology	
CHEM 6941	Advanced Organic Chemistry 1	
ENST 5830	Toxicology and Risk Assessment	

**Total Semester Hours** 12

#### Industrial/Institutional Management Track

COURSE	TITLE	S.H.
<b>Core courses (taken by certificate candidates in both tracks)</b>		
ENST 6900	Advanced Environmental Studies	3
ENST 6901	Sources of Contamination	3
<b>Industrial/Institutional Management Track</b>		
ENST 6920	Environmental Compliance	3
ENST 6921	Industry/Institutional Management for the Environmental Professional	3
Select one of the following:		3
ENGR 6925	Applied Environmental Management	
ENST 5800	Environmental Impact Assessment	
ENST 5830	Toxicology and Risk Assessment	

**Total Semester Hours** 15

### Learning Outcomes

The Risk Management track is designed to enable professionals in environmental science positions to:

- Identify and assess potential sources of environmental risk in the public sector
- Advise industrial partners in developing protocols for proper attentive measures
- Enable the student to continue graduate studies leading to higher degrees

The Industrial/Management Track is designed to meet the needs of students and working professionals preparing for leadership roles in environmental science or management. The graduate certificate is focused in two tracks, with specialization in risk management and industrial/institutional management. This program is especially useful for careers with:

- regulatory agencies,
- industries seeking compliance with environmental regulations or focusing on environmental management systems,
- research facilities, and
- consulting firms providing state-of-the-art assessment, management, and remediation.

The program will also prepare the student to continue graduate studies leading to higher degrees.