North Iowa Area Community College
Course Outline

Please follow the included instructions when completing this form. Direct questions to Division Chair. After Course Outline is completed, please submit to Division Chair for review, who then submits to Administrative Assistant to the Vice President for Academic Affairs for review by the Curriculum and Academic Affairs Council (CAAC).

Prepared by:	Craig Zoellner
Date Approved by CAAC:	September 9, 2019
Course Title:	Environmental Science
Course Number:	ENV-110
Equivalent Prior Course Numbers:	70-104; ENVR-101
Academic Division/Department:	Natural Science

Credits – Semester Hours (s.h.): 3

Contact Hours As defined by the Iowa Department of Education in consultation with Division Chair/Registrar (see attached instructions).

Lecture:	30	1 s.h. = 15 contact hours
Lab:	30	1 s.h. = 30 contact hours
Clinical Practice:	0	1 s.h. = 45 contact hours
Work Experience:	0	1 s.h. = 60, 75, 90, or 105 contact hours
Total:	**60**	

Prerequisite(s):

None

Corequisite(s):

None

Course Description:

The study of ecological principles and the interrelationships among populations, resources, and pollution in developing a sustainable society. Lecture and laboratory-based topics include: population ecology, soil, water, land, air, and energy resources, plus air, water, soil and waste management. Environmental decision making strategies to resolve current and future environmental issues are stressed.

Required Textbook(s) and Other Required Materials:

Okoboji Wetlands, Lannoo, 1995; A Country So Full of Game, Dinsmore, 1994; IOWATER Manual; Field & Laboratory Exercises in Environmental Science, NIACC EDITION & Other handouts

Purpose of Course Check one [X] in consultation with Division Chair.

X	Arts and Sciences (General Education)
	Arts and Sciences
	Career and Technical (General Education)
	Career and Technical
	Developmental

If course is offered only in specific semesters, please explain below:

Fall, Summer

Maximum number of weeks for which the course is offered:

16

[Do not edit the following section. Managed by Academic Affairs]

Is this a Core Competency Anchor Course? YES ☐ NO ☐

If "Yes," list Core Competency Student Learning Outcome Numbers being taught and assessed in this course (2.2, 3.1, etc.)

(Example) 2.2 [Press Tab to create new rows for each SLO]

Student Learning Outcomes (SLOs):

GENERAL OBJECTIVES

A. To learn ecological principles that are basic to an understanding of environmental issues and solutions.
B. To develop an attitude of a sustainable society - one that conserves natural resources, recycles, uses renewable resources, reduces pollution and controls population growth.
C. To identify major pollution problems and discuss the legal, technical and personal solutions to address these problems.
D. To strengthen decision-making skills and to encourage student involvement in resolving current and future environmental issues.

SPECIFIC OBJECTIVES

1. The student should understand why environmental issues and solutions are complex and interrelated.
2. The student should understand what is meant by an ecosystem approach to environmental problem solving.
3. The student should understand that environmental science is a discipline that includes both applied and theoretical aspects of traditional science, and that social, economic, and political aspects are also involved.
4. The student should be able to define ecology and describe the structure and function of an ecosystem.
5. The student should be able to identify the factors that affect ecosystem balance and imbalance and to assess the impact of human activities on terrestrial and aquatic ecosystems.
6. The student should recognize that most of the world still has a rapidly growing population, which may alter the worldwide ecosystem.
7. The student should understand the concept of carrying capacity of a region, the environmental implications of over reproduction and identify actions to limit population growth.
8. The student should be able to identify problems associated with land and water uses and to specify best management practices associated with each.
9. The student should be able to identify current energy sources, consumption, trends and conservation practices.
10. The student should be able to identify endangered species and wildlife management practices to preserve all plant and animal species.
11. The student should be able to identify specific actions to reduce air, water, and hazardous and solid waste pollution.
12. The student should recognize that environmental decision-making includes ethical, economical and political considerations and each of us has a responsibility to be involved in the transition to a sustainable society.