



# North Central Michigan College

## Master Course Syllabus

### PART 1:

Course Name: Introduction to Environmental Economics

Course Number: ECO 220

Credit Hrs. 3      Lecture Hrs. 0      Lab Hrs. 0      Clinical Hrs. 0      Variable Hrs. 0

Total Hours of Instruction: 3      Total Contact Hours: 52.8  
(Total Contact hour's formula: (lecture hrs. + lab hrs. + clinical hrs) x 17.6)

#### Course Description:

Provides an introduction to the application of economic principles to issues of environmental quality and sustainability within the context of a market-based economic system. Market concepts of supply and demand will be examined, with emphasis placed on efficiency and examination of externality-caused market failures. Emphasis will also be placed on cost/benefit analysis with applications to such issues as air and water quality, resource extraction and land use, fisheries, and waste disposal and recycling. Policy approaches to managing such issues will also be examined.

Prerequisite (s): None

Co-requisite (s): None

#### Course Objectives:

- Use the concepts of supply and demand to define market outcomes.
- Describe the impact of externalities on the efficiency of market outcomes.
- Relate economic concepts to current environmental issues.
- Describe how cost/benefit analysis is applied to current environmental issues.
- Describe basic policy approaches to environmental issues within the context of environmental economics.
- Demonstrate the ability to apply basic economic concepts to the analysis of an environmental issue.

Reasonable accommodations can be provided for students with documented disabilities. Please contact Learning Support Services to arrange for these (231)348-6687 or (231)348-6817, Room 533 SCRC.



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## **PART 2:**

### **Course Objectives and Linked Lumina DQP Outcomes**

See **PART 3** of this syllabus for the complete language of each Lumina DQP outcome.

*Please identify the Lumina DQP outcome(s) supported by the course objectives. List each course objectives (from **PART 1**), followed by the corresponding Lumina DQP Outcome number(s) in parentheses.*

- Use the concepts of supply and demand to define market outcomes. (DQP # 1 and 2)
- Describe the impact of externalities on the efficiency of market outcomes. (DQP # 1 and 2)
- Relate economic concepts to current environmental issues. (DQP # 7 and 8)
- Describe how cost/benefit analysis is applied to current environmental issues. (DQP # 1 and 2)
- Describe basic policy approaches to environmental issues within the context of environmental economics. (DQP # 8)
- Demonstrate the ability to apply basic economic concepts to the analysis of an environmental issue. (DQP # 8)



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## **Suggested Methods of Instruction:**

Lecture, discussion, group work

## **Suggested Methods of Assessment and Evaluation:**

Exams, research paper, presentation

## **Adopted Text at Time of Course Adoption/Revision:**

Environmental Economics: An Introduction by Barry C. Field and Martha K. Field, 6th ed. (2013)

## **Topics Covered During the Semester:**

*Sequence of topics and time allowance are at the discretion of the instructor*

- Week 1: Economics and the environment
- Week 2: Economics concepts and tools: supply and demand
- Week 3: Economic concepts and tools: efficiency and equity
- Week 4: Economic concepts and tools: market failure: externalities
- Week 5: Application: Identification of current environmental issues and application of economic concepts
- Week 6: Economic analysis of environmental issues: benefit/cost analysis
- Week 7: Economic analysis of environmental issues: benefit/cost analysis
- Week 8: Economic analysis of environmental issues: discounting
- Week 9: Economic analysis of environmental issues
- Week 10: Application: Economic analysis of current environmental issues
- Week 11: Analysis of environmental policy: Decentralized (liability laws, property rights)
- Week 12: Analysis of environmental policy: Command and Control (emission standards, technology standards)
- Week 13: Analysis of environmental policy: Incentive based (emission charges, transferable emission permits)
- Week 14: Analysis of environmental policy
- Week 15: Application: Environmental policy, economic analysis, and current environmental issues
- Week 16: Application: Environmental policy, economic analysis, and current environmental issues

Part 1 & Part 2 approved by CRDAP on: 02 19 16

Part 2 approved by AD:

Date:

Part 2 approved by CRDAP Chair:

Date:

Rev02/15



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### **PART 3:**

**LUMINA DQP OUTCOMES** – Use this reference sheet for **PART 2** of Master Course Syllabus.

#### **Specialized Knowledge**

1. Describes the scope and principal features of the field of study, citing at least some of its core theories and practices, and offers a similar explication of at least one related field.
2. Illustrates contemporary terminology used in the field.
3. Generates substantially error-free products, reconstructions, data, juried exhibits or performances as appropriate to the field.

#### **Broad Integrative Knowledge**

4. Describes how existing knowledge or practice is advanced, tested and revised
5. Describes and examines a range of perspectives on key debates and their significance both within the field and in society.
6. Illustrates core concepts of the field while executing analytical, practical or creative tasks.
7. Selects and applies recognized methods of the field in interpreting characteristic discipline-based problems.
8. Assembles evidence relevant to characteristic problems in the field, describes the significance of the evidence, and uses the evidence in analysis of these problems.
9. Describes the ways in which at least two disciplines define, address and interpret the importance of a contemporary challenge or problem in science, the arts, society, human services, economic life or technology.

#### **Intellectual Skills – Analytic Inquiry**

10. Identifies, categorizes and distinguishes among elements of ideas, concepts, theories and/or practical approaches to standard problems.

#### **Intellectual Skills – Use of Information Resources**

11. Identifies, categorizes, evaluates and cites multiple information resources necessary to engage in projects, papers or performance in his or her program.

#### **Intellectual Skills – Engaging Diverse Perspectives**

12. Describes how knowledge from different cultural perspectives would affect his or her interpretations of prominent problems in politics, society, the arts and/or global relations.

#### **Intellectual Skills – Communication Fluency**

13. Presents accurate calculations and symbolic operations, and explains how such calculations and operations are used in either his or her specific field of study or in interpreting social and economic trends.
14. Presents substantially error-free prose in both argumentative and narrative forms to general and specialized audiences.

#### **Applied Learning**

15. Describes in writing at least one substantial case in which knowledge and skills acquired in academic settings are applied to a challenge in a non-academic setting; applies that learning to the question; and analyzes at least one significant concept or method related to his or her course of study in light of learning outside the classroom.
16. Locates, gathers and organizes evidence on an assigned research topic addressing a course-related question or a question of practice in a work or community setting; offers and examines competing hypotheses in answering the question.

#### **Civic Learning**

17. Describes his or her own civic and cultural background, including its origins and development, assumptions, and predispositions.
18. Describes diverse positions, historical and contemporary, on selected democratic values or practices, and presents his or her own position on a specific problem where one or more of these values or practices are involved.
19. Takes an active role in a community context (work, service, co-curricular activities, etc.), and examines the civic issues encountered and the insights gained from the community experience.

The Degree Qualifications Profile was adopted by CRDAP: April 11, 2012