

**ECON 240 Environmental Economics**  
**Spring 2013**

**Location:** Comenius 218  
**Time:** MW 2:35 PM-3:45 PM  
**Instructor:** Dr. Sonia Aziz  
**Office:** Comenius 204  
**Office Hours:** 3:45 – 4:45 p.m. M,W; 1:00-3:00 p.m. T, or by appointment  
**Phone:** 610-625-7702  
**Email:** aziz@moravian.edu<sup>1</sup>

**Course Content:**

The theory of externalities and market failure will provide the basis for applying microeconomic concepts to the study of environmental issues. Analytical tools will be explained and applied to problems with environmental dimensions. Criteria and strategies used in the development and implementation of environmental policies will be defined and summarized. Theoretical and policy formulations will be pursued with respect to environmental issues such as air and water quality.

**Course Objectives**

- i) To apply microeconomic theory to the study of environmental issues.
- ii) To identify and critically evaluate economic policy issues.
- iii) To develop written and verbal skills in communicating an environmental economic perspective.

**Prerequisites:**

Please be aware that math and graphical analysis will be used throughout the course (lectures, exams and assignments).

**Course Materials:**

**Required Text:** Environmental Economics by Field and Field, 5e, McGraw-Hill, Irwin, Publishers, 2009.

**Supplemental Readings:**

The Theory of Environmental Policy by Baumol and Oates, Cambridge University Press.  
Economics of the Environment: Selected Readings by Dorfman and Dorfman. Norton Publishers.  
Environment and Resource Policies for the World Economy by Cooper. Brookings Institution.  
Economics of the Environment by Stavins. Norton Publishers.  
Selected readings/films (Placed on Blackboard/library reserve)

**Evaluation:**

There will be two semester exams and a final. The final is cumulative. You must notify me BEFOREHAND if you need to reschedule an exam. If you do not take an exam on the date it is given without first making alternative arrangements, you will receive a score of zero for that exam. The class grade will be computed from grades on quizzes, participation in class discussions/debates, take

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<sup>1</sup> Please note that emails should follow protocol, which means it should include a salutation at the beginning (eg. Dear Dr. A. Leon) followed by a standard sign-off at the end (eg, Thanks, G. Arcturus).

home assignments, in class assignments and presentations. Moravian college policies regarding academic honesty will be enforced. Please read the **Academic Honesty Policy** that is included in the student handbook.

### **Assignments, Classroom Participation and Expectations:**

Students are required to read scheduled chapters before coming to class. Additional readings may be distributed in class, posted on blackboard or placed on reserve in the library. Homework must be turned in on time for full credit. Regular attendance is expected. Because contribution to the classroom community is counted as part of the class grade (see below for full breakdown), regular attendance is necessary to receive full credit in this category. The use of cell phones in the classroom is not permitted. The use of laptops in the classroom (subject to need for individual accommodations - see below) is also not permitted.

### **Weights:**

<b>Test 1</b>	<b>20 %</b>
<b>Test 2</b>	<b>20 %</b>
<b>Final</b>	<b>30 %</b>
<b>Class Grade*</b>	<b>30 %</b>

\* Based on attendance, classroom discussion, quizzes, in class assignments, take home assignments, classroom debate and presentations. Classroom discussion, in class assignments and quizzes count as 15% of the class grade; take home assignments and presentations count for 15% of the class grade.

### **Test Grading Policy:**

Test questions are short answer (analytical, definitional), multiple choice and essay questions (analytical and/or writing intensive). Sometimes a student will disagree with a grade assigned to particular question. This is a legitimate concern and will be addressed in the following procedure. To have an answer reevaluated, the student must submit a *written* request for a reevaluation. This request should identify the question in dispute, provide a written explanation why the student feels the question was incorrectly evaluated, and propose a suggested remedy. It is within the instructor's purview to apply qualitative judgment in determining grades for an assignment or for a course.

### **Grading Scale:**

<b>A (92-100)</b>	<b>C (72-77.9)</b>
<b>A- (90-91.9)</b>	<b>C- (70-71.9)</b>
<b>B+ (88-89.9)</b>	<b>D+ (68-69.9)</b>
<b>B (82-87.9)</b>	<b>D (62-67.9)</b>
<b>B- (80-81.9)</b>	<b>D- (60-61.9)</b>
<b>C+ (78 – 79.9)</b>	<b>F (0-59.9)</b>

### **Accommodation:**

Should you have any individual concerns regarding disability please discuss this with me during the first week of class in person or via email. In addition, individuals from the counseling center will work with you to verify your need for accommodation and will help determine the environment in which you will have the opportunity to succeed in this course. To this end, students who wish to request accommodations in this class for a disability should contact Elaine Mara, Assistant Director of Learning Services for Disability Support, 1307 Main Street (extension 1510). Accommodations cannot be provided until authorization is received from the Academic Support Center.

## **COURSE SCHEDULE**

Here is a tentative schedule and list of topics to be covered in class this semester. Schedule may be revised as we go forward. Also, depending on the background, interests and progress of the class we may cover more or less material or cover it in a different order:

### **I. Conceptual Foundations**

#### **Week of January 14**

01/14 Introduction to Environmental Economics – Chapter 1

01/16 Economy and Environment, Review of Economic Concepts and Analytical Tools - Ch 2: Ch 3

#### **Week of January 21**

01/23 Economy and Environment, Review of Economic Concepts and Analytical Tools - Ch 2: Ch 3

#### **Week of January 28**

01/28 General models in Pollution Control and Analytical Frameworks, Illustrations of Economic Perspectives (eg biodiversity) – Ch 5, Notes from Chapter 19

01/30 General models in Pollution Control and Analytical Frameworks - Ch 5, Ch 6

### **II. Economics of Environmental Quality and Analytical Methods**

#### **Week of February 4**

02/04 General models in Pollution Control and Analytical Frameworks - Ch 5, Ch 6

02/06 General models in Pollution Control and Analytical Frameworks - Ch 5, Ch 6

#### **Week of February 11**

02/11 **Test 1**

### **III. Environmental Policy Analysis**

02/13 Benefits and Costs: Benefit-Cost Analysis - Ch 7, Ch 8

#### **Week of February 18**

02/18 Benefits and Costs: Benefit-Cost Analysis - Ch 7, Ch 8

02/20 Benefits and Costs: Benefit-Cost Analysis - Ch 7, Ch 8

#### **Week of February 25**

02/25 Tools to Measure Benefits – Posted Readings

02/27 Tools to Measure Benefits – Posted Readings

Spring Recess

**Week of March 11**

03/11 Tools to Measure Benefits – Posted Readings

03/13 Tools to Measure Benefits – Posted Readings

**Week of March 18**

03/18 Averting Behavior - Water Pollution – Arsenic in Drinking Water

03/20 Exercise on benefits measurement/welfare

**Week of March 25**

03/25 Film viewing

03/27 Film Quiz/Review

**Week of April 1**

04/01 Test 2

04/03 Criteria for Evaluating Environmental Policies – Ch. 9, Decentralized Polices, Command-and-Control Strategies– Ch 10, Ch 11

**IV. International Environmental Issues**

**Week of April 8**

4/8 Criteria for Evaluating Environmental Policies – Ch. 9, Decentralized Polices, Command-and-Control Strategies – Ch 10, Ch 11, Command and Control versus Incentive Based–Ch 12

4/10 Command and Control versus Incentive Based Ch. 12; Special Topics; The Global Environment, Ozone Depletion, Global Warming – Ch 23, Handouts, Readings TBA, International Environmental Issues – Ch 21

**Week of April 15**

4/15 Review/Classroom Activity/Readings/Presentations

4/17 Classroom Activity/Readings/Presentations

**Week of April 22**

4/22 Classroom Activity/Readings/Presentations

4/24 Classroom Activity/Readings/Presentations

**ECON 225 Microeconomics**  
**Spring 2013**

**Location:** Comenius 105  
**Time:** MWF 10:20 AM-11:30 AM  
**Instructor:** Dr. Sonia Aziz  
**Office:** Comenius 204  
**Office Hours:** 3:45 – 4:45 p.m. M,W; 1:00-3:00 p.m. T, or by appointment  
**Phone:** 610-625-7702  
**Email:** aziz@moravian.edu<sup>1</sup>

I am typically on campus all day Monday through Thursday. Outside of office hours, please email so I know to expect you.

**GOAL**

The purpose of this course is to become familiar with the economic theories which describe the behavior of both firms and consumers. We will examine how and why consumers make the choices that they do, and what it means for firms to maximize profits and minimize costs. Applications of microeconomic theory such as externalities, market failure and market power will also be discussed in detail.

**TEXTS and Resources**

Microeconomics, 6<sup>th</sup> edition

by Robert S. Pindyck and Daniel L. Rubinfeld

Study Guide to Accompany Microeconomics is optional ([www.prenhall.com/pindyck](http://www.prenhall.com/pindyck)). NOTE that questions and material on this study guide do not place the same level of emphasis on graphs and quantitative problem solving that I do on the exams.

Teaching Assistants, Ben Hammel and Emily Lambright

This class is highly quantitative and prerequisite requirements must be completed before enrollment. Additional assistance on quantitative questions are available from teaching assistants, who will conduct weekly instruction sessions focused on problem solving.

**Assignments, Classroom Participation and Expectations:**

Students are required to read scheduled chapters before coming to class. Additional readings may be distributed in class or placed on reserve in the library. Homework must be turned in on time for full credit. Regular attendance is expected. Because contribution to the classroom community is counted as part of the class grade, regular attendance is necessary to receive full credit in this category. The use of cell phones in the classroom is not permitted. The use of laptops in the classroom (subject to need for individual accommodations - see below) is also not permitted. Your grade will be determined by the combination of homework quizzes, four exams including the final exam, and class participation. Most homework quizzes will consist of

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a few of the review questions from the chapters listed for each quiz. The intent of the quizzes is to create additional incentive to read the chapters and apply the material BEFORE you must do so in an exam setting. You should note that this course is quantitative in nature, making satisfactory exam performance heavily dependent on practicing of the methods and techniques used in problem solving. Make-up exams are not normally given. **Students failing to take an exam on the scheduled date without prior permission of the instructor will receive a grade of zero on that exam.**

#### **Academic Honesty:**

**I endorse and strictly enforce the College's academic honesty policy. Cheating violations of any kind will result in failure for the semester, no exceptions. The academic honesty policy can be found in the college handbook. Make sure you have read it and understand it.**

#### **Weights:**

Class grade*	18%
EXAMS 1-3	20% each
FINAL EXAM	22%

\* In class assignments and take home assignments count for 15% of the class grade. Attendance, classroom discussion and contribution to the classroom community count for 3% of the class grade: It is fully expected that all students will earn these points simply by being present (**physically and mentally**)

#### **Grading Scale:**

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#### **Accommodation:**

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#### **Class Scheduling**

In order to increase contact time roughly by 35 minutes per week, I have gone from a previous configuration of two eighty minute sessions per week to a configuration of three seventy minute sessions per week, and since we cannot schedule half class sessions, this ends up being more time than we need. Specifically, we do not require this additional time in its entirety. Therefore, a few Fridays this semester are denoted "No class" under the course schedule. In other words, the class schedule tentatively reflects the *schedule and number of* Fridays out of this semester that we shall \*not\* meet.

## COURSE SCHEDULE

Here is a tentative schedule and list of topics to be covered in class this semester. Schedule may be revised as we go forward. Also, depending on the background, interests and progress of the class we may cover more or less material or cover it in a different order:

Week/DATE	TOPIC	READING
<b>Week of Jan 14</b>		
1/14	Introduction	Ch. 1
1/16	Demand and Supply review	Ch. 2
1/18	Demand and Supply Review/Calc. review; In-class 1b	Ch. 2
<b>Week of Jan 21</b>		
1/23	In Class Problem Set #1	
1/25	HW quiz #1; Consumer Behavior	Ch. 3
<b>Week of Jan 28</b>		
1/28	Consumer Behavior Choice under uncertainty	Ch. 3 Notes, Ch. 5
1/30	HW quiz #2; Individual Demand	Ch. 4
2/1	No class	Ch. 4
<b>Week of Feb 4</b>		
2/4	Market Demand/Elasticity	Ch. 4
2/6	Demand Curve Estimation	Ch. 4
2/8	Review	
<b>Week of Feb 11</b>		
2/11	EXAM #1 (1-4)	
2/13	Production	Ch. 6
2/15	Production	Ch. 6
<b>Week of Feb 18</b>		
2/18	Production/cost	Ch. 6, 7
2/20	HW quiz #3; Cost	Ch. 7

2/22 No Class

**Week of Feb 25**

2/25 Cost/In-class # 3

Ch. 7

2/27 Cost

Ch. 7

3/1 Microeconomic Applications: Environmental Economics

Notes, Ch. 18

***Spring Break***

**Week of March 11**

3/11 End Micro Applications: Environmental Economics/Review

Notes, Ch. 18

3/13 Exam #2

3/15 Profit Maximization/Perfect Competition

Ch. 8

**Week of March 18**

3/18 Profit Maximization/Perfect Competition

Ch. 8

3/20 Perfect competition/Analysis of competitive markets

Ch. 8 – 9

3/22 No class

**Week of March 25**

3/25 HW quiz #4; Analysis of Competitive Markets

Ch. 9

3/27 Monopoly/Monopsony

Ch. 10

3/29 Monopoly

Ch. 10

**Week of April 1**

4/1 Monopoly

Ch. 10

4/3 In Class # 4

4/5 Review

**Week of April 8**

4/8 Exam #3

4/10 An Oligopolistic Example

4/12 Analysis of an Oligopolistic Example/In Class 4b



**Week of April 15**

4/15	Game Theory	Notes, Ch 11
4/17	Game Theory/Pricing Strategy	Notes, Ch. 11
4/19	<b>HW quiz #5</b> ; Monopolistic Competition Oligopoly 423-430/Game theory	Notes, Ch. 12-13

**Week of April 22**

4/22	Game Theory/In class 5	Ch. 13
4/24	In class 5a	
4/26	Review	

**FINAL EXAMS ARE April 29 through May 3.** Be sure that you do not plan travel or other commitments during that time! Travel immediately before or after breaks is not excused.