

## BUS 363-01 Environmental & Natural Resources Economics - Fall 2018

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**Office hours:** MW 1:00-3:00 pm | UR 12:30-1:30 pm

*“the welfare of the individual depends on the extent to which he can identify himself with others, and that the most satisfactory individual identity is that which identifies not only with a community in space but also with a community extending over time from the past into the future.”*

Kenneth E. Boulding (1910-1993), *the Economics of the Coming Spaceship Earth*, 1966.

### Catalog Course Description

An introductory course in the environmental and natural resource economics, it is designed to help students explore the important role of economics in the design and implementation of policy and management of natural and environmental resources. Prerequisites: ECON 200 and ECON 201.

### AUK College of Business and Economics Mission Statement

The College of Business and Economics prepares students through an American liberal arts educational experience combining quality intellectual challenge and ethical professional practice for careers in Kuwait and beyond.

**COURSE OBJECTIVES & LEARNING OUTCOMES:** this introductory course is designed to illustrate the important role of economics in environmental and natural resources management. The course further develops critical and analytical thinking while incorporating principles of micro- and macroeconomic to develop a theoretical framework for the understanding of environmental and natural resources problems, identify their causes and consequences and ways to address them. It enables students to develop, evaluate and critique alternative management and policy options for environmental and natural resources on national and international levels.

Upon completion of this course, students will be able to:

1. Describe the criteria used to classify natural resources and identify the settings in which environmental and natural resources problems arise
2. Explore the various dimensions of efficiency and its role in addressing various static and dynamic resources allocations.
3. Apply the “tragedy of the commons” metaphor to gain deeper understanding of the “unintentional” common resource depletion and environmental degradation.
4. Apply the market system framework to evaluate environmental and natural resources problems (externalities, public goods, etc.) and illustrate limitations of the market system.
5. Apply the economics framework to pollution, describe and assess pollution control policies.
6. Evaluate the role government intervention to address market failures and describe the various policy options to improve market outcome.
7. Describe the criteria of sustainability, greening the economy and their relationship to efficiency and explore various policy options to achieve them.
8. Apply cost-benefit analysis in environmental protection and public goods valuation.

9. Evaluate various energy sources, their market structure and analyze the energy supply mix appropriate for the future, with emphasis on Kuwait and the extended region.
10. Evaluate causes and consequences of climate change, responses and economic analysis of climate change.
11. Assess the global S&D for water and shortages; and describe water pricing, water rights, water markets, and water privatization.
12. Describe Kuwait water system hydrology, problems and economics; and evaluate water policy.

**COURSE OBJECTIVES RELATION TO AACSB ACCREDITATION:** CBE is in the process of pursuing AACSB (<http://www.aacsb.edu/>) accreditation and is currently in the Initial Accreditation Phase. AACSB is the hallmark for excellence in business teaching and research. Roughly about 5% of business degrees-awarding programs around the world are accredited by AACSB. Achieving this accreditation entails subscribing to the highest standards adopted by the very best business programs in the world. As part of this accreditation process CBE has developed a set of learning goals that are emphasized in the Bachelor of Business Administration (BBA) curricula. The specific goals which are being underscored in this course are listed below.

Program Goal	Learning Objective Students will:
Critical Thinking and Decision skills	Demonstrate critical thinking skills with application of principles to business situations.
Ethics and Social Responsibility	Apply ethical reasoning and social responsibility aspects of business situations.
Global, Regional, and Multi-cultural Aspects of Business	Assess global, regional and multicultural aspects of business operations and their impacts on business.

**PREREQUISITES:** ECON200, ECON201.

**REQUIRED TEXTS:** Environmental and Natural Resource Economics: A Contemporary Approach, 4th ed. by Jonathan Harris & Brian Roach, 2018 – Routledge (ISBN-13: 9781138659476).  
[http://www.ase.tufts.edu/gdae/publications/textbooks/env\\_nat\\_res\\_economics.html](http://www.ase.tufts.edu/gdae/publications/textbooks/env_nat_res_economics.html)

**SUPPLEMENTARY READING:** you are responsible for reading reports, articles, and case studies, among others, which will be available via email or in Moodle. In addition, you are encouraged to regularly check the Project Syndicate <http://www.project-syndicate.org> for engaging and thought-provoking commentaries and opinions and share them in class. You may also want to regularly check the economic and environment sections of leading newspapers, journals, and other prominent media outlets.

**RECOMMENDED READINGS:**

- The United Nation Environmental Program (UNEP) *Global Environmental Outlook 5: Environment for the Future We Want*, <http://www.unep.org/geo/assessments/global-assessments/global-environment-outlook-5>.
- *Sustainable Entrepreneurship: Business Success Through Sustainability* by Christina Weidinger, Franz Fischler and Rene Schmidpeter, Springer 2014.

- *Groundwater Economics*, by Charles Job, CRC Press, 2010.
- *The Post Carbon Reader: Managing the 21st Century's Sustainability Crises*, by Heinberg, Richard and Lerch, Daniel, Univ. of California Press, 2010.
- *The End of Growth Format: Trade Paper*, by Richard Heinberg, New Society Publishers, 2011.
- *The Our Renewable Future: Laying the Path for One Hundred Percent Clean Energy*, by Richard Heinberg and David Fridley, Island Press, 2016.
- *Afterburn: Society Beyond Fossil Fuels* by Richard Heinberg, Post Carbon Institute, 2015.
- *Snake Oil: How Fracking's False Promise of Plenty Imperils Our Future* by Richard Heinberg, Post Carbon Institute 2013

### CLASS POLICIES:

- **Email communication protocol:** all electronic mail communications must be generated using your AUK account, no exception to this policy. Emails in violation of policy will not be acknowledged. Under all circumstances, email can in no way be used to communicate or discuss class grades.
- **Attendance:** student is expected to attend all classes, arrive on time and leave after I take roster at the end of class. AUK policy on attendance will be enforced and so if you miss more than 15% (6 class meetings) of the class sessions should expect to fail, unless verifiable documented evidence is submitted to justify absence. Student who does not submit documented evidence for absences exceeding the limit are expected to withdraw from the course. It is the student's responsibility to withdraw from the course by the specified deadline, as indicated on the Academic Calendar. Students who withdraw from a course receive a grade of "W." Student who does not withdraw from a course nor submit supporting documents for excessive absences will receive a grade of "FN" (failure for non-attendance).
- **Free-pass policy:** designed to help you deal with emergencies, which could result in missing class. Each student is entitled to 2-free passes.
- **Make-up exams:** No make-up exams will be given, and no additional projects are assigned in order to increase one's grade after an exam, or at the end of the semester.
- **Orderly Conduct:** Disruptive or disorderly conduct will not be tolerated. Basically, any activities or attitudes that hinder the ability of the instructor to carry out classroom duties or create distraction to the instructor or fellow classmates are deemed disruptive. This includes, but not limited to: leaving the classroom in the middle of lecture, use of smart devices during class, side conversation, to mention just few. Disorderly conduct could result in loss/reduction course grade leading all the way to a failing grade.

**PEDAGOGY:** This course is an oral communication intensive course and as such, it will integrate the goals of reading, critical thinking, and application. My objective in this class is to challenge students to ask the kind of questions which engender deep reflection on various economic concepts, processes, approaches, and policies. Interaction between the teacher and students, therefore, is viewed as the medium through potential learning takes place. Based on my experience, love of learning is much more important than learning itself because it creates a conducive learning environment and provides the energy and the stimulus for people to actively listen, read, discuss, and debate. To this end, this course utilizes the followings:

- **Reading assignments:** are expected to be completed before coming to class since lectures will make more sense if reading is done first. Lectures and readings are complementary and although lectures will often follow the logical sequence of the textbook, some lecture material is not available in the text and some reading material will not be repeated during lectures. Lectures cannot always cover all reading material, but they allow for more focus and reflections on more important and relevant topics.

- **Class Participation:** Participation is measured in terms of attendance; performance on pop quizzes homework assignments, among others. These are designed to help you remain focused and stay current on your reading and enhance your articulation of economic principles. In addition, they provide a rare opportunity to explore applications to address real world problems we face in Kuwait and beyond.
  - **Homework:** assignments are designed help make the structured course content more comprehensible by applying what you read, see and hear during lectures. They also challenge you to learn by doing. When doing your assignments, always take the time to invoke your graphical skills by articulating some of your ideas using economic models and graphing tools. Take the time to show pride by producing graphs that are neat, labeled, color-coded and using graphing papers.
  - **Case studies:** topic-related cases are provided as supplemental reading to facilitate discussions. They are designed to provide working knowledge of' the environmental issues and application of economic tools and methodologies to address environmental and natural resource problems.
  - **Pop quizzes:** on previous lectures or currently assigned material. They can be given at any time during the class and there is no make-up for missed quizzes.
  - **Field trips:** provide an opportunity to develop a basic understanding of a given environmental and natural resources problem(s) facing Kuwait. The field trip often develop into case study where you will be required to do preliminary research on a given problem and site visit of production or processing facility related to a given problem. It involves interaction with professionals addressing the problem and may pave the way for further collaboration and investigation.
  - **Extracurricular activities** that enhance and enrich your educational experiences as well as others.
- **Exams:** There will be 2 mid-terms and a Final Exam. Midterms are given on the scheduled dates announced in the syllabus while the Final is according to AUK Final Exam Schedule.
- **Research Project:** This requirement is designed to test your understanding of concepts, tools and theories and methods presented in this class to real world problems. Ideally, the project, which can be in group, needs to demonstrate your ability to understand a specific resource problem, survey and analyze existing policies, and propose a set of prescriptive alternative policies to remedy the problem. One word of caution, avoid using journalist approach (you will not get any credit), and instead your writing must embody a style of economic way of thinking. Meaning, you need to think systematically about a specific issue, characterize it as an economic problem (i.e. market failure), and formulate a model in order to perform analysis (under certain assumptions), make judgments and arrive at reasonable conclusions on the basis of relevant analytical principles; and whenever possible, on reliable statistical information. The topic needs to be Kuwait- or GCC-related must be approved by professor.
- **Paper Submissions:** Once you select a topic, you need to submit a one-page proposal describing plan and scope of research. No paper will be accepted without approved proposal. You are encouraged to consult with me and discuss your research plan. Eventually, you will receive the proposal with written feedback. The proposal **deadline is due Oct 3<sup>rd</sup>**. The research paper needs to be submitted in two parts. Part I is about half of the paper and it must include, beside the proposal with the written feedback, the followings: brief description of the problem, market characterization where the problem occurs, market participants (including external ones), role of government (if any), and description of the problem in economic terms. This Part I is **due Oct 31<sup>st</sup>**. The full paper, which must include Part I (with changes if any) is due **Nov 28<sup>th</sup>**. The latter part of the paper needs to include analysis and discussion of the problem(s) and alternative options to address them. In this Part, you need to specify the information and analytical tools you need to identify sources of market failure and how to address them. You are expected to employ

sound arguments in support for your choice of options. The paper needs to be at least 10 double-spaced pages (excluding reference page) and must follow standard term paper format (one-inch margins on all sides and a 12-point typeface).

**EVALUATION & GRADING:** Students' performance is evaluated using the following criteria:

Class Participation (attendance, quizzes, assignments)	20%
Research Paper	15%
Two Midterm Exams (20% each)	40%
Final Exam	25%
<b>Total</b>	<b>100%</b>

Letter of grade is assigned based on the following scale

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
94-100	90-93	87-89	84-86	80-83	77-79	70-74	74-76	67-69	64-66	60-63	0-59

**AUK POLICY & ACADEMIC HONESTY AND INTEGRITY:** upon admission to AUK, you took upon yourself to act responsibly in areas such as personal, social and academic, among others, which are explicitly stated in the AUK STUDENT CODE OF CONDUCT. The University has the right to, through the due process, to take disciplinary action against students for violations of this Code and any institutional standards of behaviors and academic regulations and procedures, which are defined in the catalog and the Student Planner & Handbook. This includes cheating and plagiarism in any form (e.g. exam, research papers). Violations of this Code will be penalized by a failing grade in exam and/or course and may also lead to student's dismissal from the University.

**ACADEMIC SUPPORT:** If you have any difficulties, please come see me right away, as I am here to help you. In addition, AUK offers a host of resources designed to help you develop the skills you need to succeed in college. The Academic Advising Center provides Academic Skills Workshops throughout the semester such as: effective study habits, time management, classroom etiquettes, note-taking, productivity and critical thinking, building reading skills, thinking styles, building self-esteem & self-motivation, test-taking, communications skills, stress management. Also, for technical assistance related to the writing of the research paper, you may want to consider the support of AUK Writing Center. It is imperative that you become aware of these resources and utilize them to optimize learning and achieve your academic goals in a timely and efficient manner.

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**DISABILITY ACCOMMODATION:** AUK is committed to providing equal opportunity to all students including those with disabilities. If you have a disability you are advised to immediately contact Dr. Huda Shaaban (2224 8399 ex. 3235; [hshaaban@auk.edu.kw](mailto:hshaaban@auk.edu.kw)), Assistant Director for Disability Services at the Student Counseling Center, to determine eligibility for disability-related accommodations. Registration with the Students Counseling Center is required for ALL disability-related accommodations. Accommodations cannot be applied retroactively in the event eligibility is determined later in the semester.

**DISCLAIMER:** Please note that contents of this syllabus may be subject to change. In the event changes are made to this syllabus, you will be notified in class. It is your responsibility to stay current of all changes announced in class.

ECON363 Course Outline (tentative)

Week	Reading	Notes
<i>Week1</i> Sep 9-13	Chapter 1: Changing Perspectives on the Environment <b>Sep 11 (Tue): Islamic New Year – University holiday</b>	
<i>Week2</i> Sep 16-20	Chapter 2: Resources, Environment, and Economic Development	
<i>Week3</i> Sep 23-27	Chapter 2: Resources, Environment, and Economic Development	
<i>Week4</i> Sep 20-Oct 4	Chapter 3: The Theory of Environmental Externalities	Res. Proposal, due Oct 4 <sup>th</sup>
<i>Week5</i> Oct 7-11	Chapter 4: Common Property Resources and Public Goods	
<i>Week 6</i> Oct 14-18	Chapter 4: Common Property Resources and Public Goods	
<i>Week7</i> Oct 21-25	Government Intervention in Market Failure	Midterm I
<i>Week8</i> Oct 28-Nov 1	Kuwait Water - Hydrology & Economics	Res Paper-Part I due Oct 28 <sup>th</sup>
<i>Week9</i> Nov 4-8	Chapter 5: Resource Allocation Over Time	
<i>Week10</i> Nov 11-15	Chapter 6: Valuing the Environment	
<i>Week11</i> Nov 18-22	Chapter 6: Valuing the Environment <b>Nov 22 (Thu): Prophet's Birthday – University holiday</b>	
<i>Week12</i> Nov 25-29	Chapter 7: Cost-Benefit Analysis	Research Paper due Nov 28 <sup>th</sup>
<i>Week13</i> Dec 2-6	Chapter 8: Pollution - Analysis and Policy	Midterm 2
<i>Week14</i> Dec 9-13	Chapter 11: Energy: The Great Transition	
<i>Week15</i> Dec 16-20	Chapter 11: Energy: The Great Transition	
<i>Week16</i> Dec 23-27	<b>Winter Break</b>	
<i>Week17</i> Dec 30-Jan 3	<b>Winter Break</b>	
Jan 8-13	<b>Comprehensive Final Exam</b> (check Final Exam schedule)	

**ECON 363-01: ENVIRONMENTAL & NATURAL RESOURCES ECONOMICS**  
Fall 2018 (CNR 8298) MW 3:30-4:45 pm – Room A204

**Instructor: Dr. Ali Aljamal**

Students enrolled in this class are required to complete this form and return it to the instructor no later than Wednesday Sept 19, 2018.

I, (Student's name) \_\_\_\_\_ have received a copy of the class syllabus and I understand the requirements and policies stated in it. I also acknowledge awareness of my rights and responsibilities as defined in the AUK STUDENT CODE OF CONDUCT.

\_\_\_\_\_  
Student's Signature

\_\_\_\_\_  
Date

**Consent to Release Class Scores (Optional)**

Student enrolled in this class has the option of viewing marks and running course grades in a score sheet posted to the course's homepage in **Moodle**. Scores are listed under a unique 5-digit identifier the student selects and maintains its anonymity. The identifier can be a mix of letters and numbers, excluding any which suggest or reveal individual's identity (cannot be your initials or AUK ID). This service is optional and student who consent now can opt out any time by submitting a written request to the instructor.

I, \_\_\_\_\_, enrolled in ECON363-01 in Fall 2018 do hereby consent to  
(print your full name)

releasing my marks in a score sheet posted to the course's homepage in **Moodle** under this identifier

\_\_\_\_\_. I understand that I take full responsibility for maintaining the confidentiality of this  
(5-digit max)

Identifier and that I will keep a copy of this consent for my record.

\_\_\_\_\_  
Student Signature

\_\_\_\_\_  
Date