ENE 502 Environmental and Regulatory Compliance
Spring 2011 Course Syllabus

<table>
<thead>
<tr>
<th>Class</th>
<th>Wednesday</th>
<th>6:40-9:20pm</th>
<th>OHE 100B</th>
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<tbody>
<tr>
<td>Professor</td>
<td>Rezvan Ramezani</td>
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<tr>
<td>Office</td>
<td>KAP 203</td>
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<tr>
<td>Phone</td>
<td>213 740-0603 or mobile</td>
<td>(310) 872-9431 (text or voice)</td>
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<tr>
<td>Email</td>
<td><a href="mailto:rezvanra@usc.edu">rezvanra@usc.edu</a></td>
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<tr>
<td>Office Hours</td>
<td>Wednesdays before &amp; after the class or by Appointment</td>
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<td>Teaching Assistant</td>
<td>TBD</td>
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<td>Prerequisites</td>
<td>Graduate standing</td>
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<td>Textbook</td>
<td>Instructor hand-out</td>
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<td>Supplemental books and materials:</td>
<td>We also use as a source book the CEQA Deskbook by Bass, Herson and Bogdan, Solano Press (purchase of this book is optional). The lecture on site investigations relies on Investigation, Remediation and Closure by Arshud Mahmood, Government Institutes.</td>
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<td>Course Objectives</td>
<td>The course gives students a working knowledge of major environmental laws and the environmental impact assessment and permitting process.</td>
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<td>Learning Objectives</td>
<td>This course provides students with the knowledge of some of the key federal environmental statutes as well as the responsibilities of key regulatory agencies involved in environmental compliance. Students will undertake an environmental assessment of a major development project as a group project and participate in a “mock” public hearing or a final project at the end of the semester.</td>
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Synopsis:

ENE 502 examines a good portion of impact assessment and permitting process, and is devoted to learning techniques and sources of information necessary to evaluate the consequences on the environment as a result of a planned action or development. One of the goals of this course will be to teach students where to find the most current information on an environmental or regulatory matter. Therefore, the course will rely heavily on information from federal, state and local regulatory agencies that students will be required to download from the internet. Students will also be expected to download resources from the internet for class discussions and to use in completion of the homework assignments.

Course Outline and Schedule

**Week 1**

1/12/2011

Course Overview- Introduction to Environmental Regulations. How do you keep current?

Homework assignment for week 1: Laws, regulations and the EPA, CEQA On-line resources

**Week 2**

Economics of Environmental Policy (part I)
Environmental Economics deals with the efficient and equitable use of society’s scarce natural resources. Environmental resources include air, water, land, wilderness area, park, wildlife and other scarce ecological systems. The objective of this lecture is to develop the techniques of economic reasoning and to apply them to environmental regulations, compliance and permitting. We will cover the following topics in the next two lectures:

**Review of economic concepts**
- Optimal allocation of Resources
- Market system, supply and demand
- Public versus Private goods and the free rider problem
- Externalities, and market failure
- Consumer surplus, marginal cost, marginal returns, opportunity costs, and other cost concepts
- Cost and Benefit analysis and discounting concept

**Homework assignment for week 2:** handout in the class

**Week 3**

**Economics of Environmental Policy (part II)**

**1/26/2011 Economics of Environmental Regulations**
- Analyze government regulatory attempts to correct market failures in terms of their economic efficiency.
- Command-and-Control Strategies: The Case of Standards
- Incentive-Based Strategies: Emission Charges and Subsidies
- Incentive-Based Strategies: Transferable Discharge Permits, Cap and Trade Program.

**Homework assignment for week 3:** handout in the class

**Week 4 AIR QUALITY Impact Assessment**

**2/4/2011**
- Environmental Justice

**Homework4:** International EIA
    Air Quality Assessment - Part I

**Week 5 NEPA/CEQA/EIR/The Concept of Env. Assessment**

**2/11/2011**

**Homework5:** Air Quality Assessment - Part II

**Week 6 Noise Impact Assessment/Asbestos Regulations**

**2/18/2011**

**Week 7 Transportation/Service Systems Impact Assessment**

**2/25/2011**

**Homework6:** Transportation Assessment Ecological Assessments/Water Quality Regulations
Week 8 Regulatory Compliance Overview- Hazardous Waste Management
3/2/2011  RCRA, CERCLA, and SARA

Week 9  Midterm
3/9/2011

Week 10  Spring Break
3/16/2011  Spring Break

Week 11  Site Investigations/Underground Storage Sites
3/23/2011  Homework7: Contaminated sites where you live

Week 12  Non-point Source Pollution Management
3/30/2011  Homework 8: Pollution Prevention Plans

Week 13  Examination of a current civil works project
4/6/2011  Video- Three Gorges Dam, China

Week 14  Audits and Risk Assessments
4/13/2011  How health issues and health risk assessments relate to the Environmental process.

Week 15  Review of Student Projects / Presentation/preparations
4/20/2011  Review of Student Projects

Week 16  Presentation
4/27/2011
GRADING CRITERIA

<table>
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<tr>
<th>Item</th>
<th>% of Final Grade</th>
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<tbody>
<tr>
<td>Class Participation</td>
<td>10%</td>
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<tr>
<td>Homework</td>
<td>25%</td>
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<tr>
<td>Exam</td>
<td>30%</td>
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<tr>
<td>Term Projects and Presentation</td>
<td>35%</td>
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Homework

Most of the homework will be loaded up on our blackboard class site. You are required to complete the homework on time and be prepared to discuss it in class the session the homework is due which is typically the next class session. I will call on students at random to discuss the homework assignment. If your homework is late, you will be unable to participate in the class discussion which will affect your class participation grade. As you will see from the above grading breakdown, homework and class participation carries a significant weight in the overall grading.

Exam and Project

I will give one comprehensive exam about 3/4th through the semester (may be a take home). If the exam was administered during the class time, please note: there is no opportunity for a make-up exam so, please make sure and be present the day of the exam. For about half the semester you will work on a group project. Typically the class breaks into three or four groups depending on the size of the class in order to undertake the project. In this project, you will examine the environmental consequences of a major proposed development project such as expansion of LAX airport, development of an LNG receiving terminal in California, construction of a major commuter rail line, chemical/petroleum plant, or power plant, etc. Students could choose their project based on major and background. It will be necessary for students to contact the required agencies proposing the project, seek information on the project description and among the group, assign and develop the analyses to assess the proposed project. As this will likely be the first experience you may have had doing this kind of work, I will work with each group and guide them to key resources and contact people. At the end of the semester, students will present their project and, if lucky, survive a “mock” public hearing before the rest of the class who, acting in assigned “roles” will be prepared to comment on and critique your analyses. Because of the nature of this course project, there is no opportunity for you to make up the oral part of the presentation and public hearing. You must be present at this class session.

Statement for Students with Disabilities

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me (or to TA) as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776.

Statement on Academic Integrity
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USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one’s own academic work from misuse by others as well as to avoid using another’s work as one’s own. All students are expected to understand and abide by these principles. Scampus, the Student Guidebook, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A:

http://www.usc.edu/dept/publications/SCAMPUS/gov/.

Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The Review process can be found at:

http://www.usc.edu/student-affairs/SJACS/.

REFERENCES

14. Design cases (to be provided in the class).