### ENE 400 Environmental Engineering Principles
Spring 2012 Course Syllabus

<table>
<thead>
<tr>
<th>Class</th>
<th>Mondays</th>
<th>6:30-9:10pm</th>
<th>KAP 148</th>
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<tbody>
<tr>
<td>Professor</td>
<td>Matin Lackpour</td>
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<tr>
<td>Office</td>
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</tr>
<tr>
<td>Phone</td>
<td>(818) 771-6756 Work — (661) 313-7112 Cell</td>
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<tr>
<td>Email</td>
<td><a href="mailto:lackpour@usc.edu">lackpour@usc.edu</a></td>
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<tr>
<td>Office Hours</td>
<td>Mondays 5:30-6:15 or by Appointment</td>
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<tr>
<td>Teaching Assistant</td>
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<tr>
<td>Prerequisites</td>
<td>Chem 105B or Chem 115B, and Math 226 and Phys 152</td>
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<tr>
<td>Textbook</td>
<td><em>Environmental Engineering Science</em>, by Nazaroff and Cohen</td>
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<td>Supplemental books and materials:</td>
<td>Additional Supplemental Material will be handed out by the instructor</td>
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<td>Course Objectives</td>
<td>Students will learn the role of environmental engineering principles in maintaining stability of our ecosystem.</td>
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<td>Learning Objectives</td>
<td>Analysis of water, air, and land pollution, including hazardous waste, and engineering of mitigation measures. Water and wastewater treatment systems.</td>
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### Synopsis:

ENE 400 examines the scientific and engineering aspects of the workings of ecosystems and how we can maintain the stability of it. The analysis of Water, Air, and land pollution will be studied and engineering of mitigation measures will be examined.

### Course Outline and Schedule

**Week 1**  
Introduction: The Nature and Scope of the Environment  
1-9-12

**Week 2**  
Holiday  
1-16-12
Week 3  Population and Economic Growth
  1-23-12
  * Energy Growth
  * Natural Environmental Hazards

Week 4  Human Environmental Disturbance
  1-30-12

Week 5  Physics and Chemistry
  2-6-12

Week 6  Atmospheric Sciences
  2-13-12

Week 7  Holiday
  2-20-12

Week 8  Microbiology and Epidemiology
  2-20-12

Week 9  Mid-Term
  3-5-12

Week 10  Ecology
  3-12-12
Week 11 Ecology 3-19-12 Water Pollution

Week 12 Ecology 3-26-12 Air Pollution

Week 13 Solid Waste 4-2-12

Week 14 Hazardous Waste & Review of the course 4-9-12
Key points of the course
Topics for further studies
Making best possible decisions with resources available
Student presentations

Week 15 student presentations 4-16-12

Week 16 student presentations & Final Exam 4-23-12 6:30 – 9:00 p.m.

Assignments will be given on weekly basis

Grading policy:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Homework</td>
<td>20%</td>
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<tr>
<td>Participation</td>
<td>15%</td>
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<tr>
<td>Midterm Exam</td>
<td>20%</td>
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<tr>
<td>Final Exam or Final Research paper</td>
<td>25%</td>
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<tr>
<td>Report &amp; Field Trip</td>
<td>20%</td>
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<tr>
<td>Total</td>
<td>100%</td>
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Course Requirement Including Report and Presentation

Homework will be assigned each week and will be due one week later.
A midterm and final will be given. About one third of the grade value will be in short essay questions, and
two thirds in problems. The final will be cumulative, but with some preference for material presented after
the midterm. The final may get replaced with a comprehensive Research Paper.
Report / Paper: We will discuss this in more detail in our class.
Field Trip: assessment of the impact of public use on rocky shore ecosystems at Cabrillo Beach or other
similar Field Trips.
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

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/.