Introduction to Chemical Engineering I

ChE 101, Fall 1999

Tuesday, 1:00—4:00 P.M. 337 FA
Thursday, 10:00—10:50 A.M. 337 FA
Friday, 12:00—12:50 P.M. 315 LME

Instructor: Dr. W. B. Whiting, 784-4307, wwhiting@unr.edu, 313 LME

Textbooks:

Objectives:

- To understand what chemical engineers do. We will discuss career paths, opportunities in the field, the role of engineers in society. Upon successful completion of this course, students should be able to explain chemical engineering to others.
- To understand what chemical engineering students do. We will discuss how the various courses and other activities in the program fit together and how they prepare students for engineering careers. We will discuss computer, tutoring, student professional society, and other resources available on campus. We will discuss successful studying habits to help students get the most out of courses. Upon successful completion of this course, students should be prepared to participate actively with their advisors in planning their academic program. Knowing how the various courses fit together should enable students to learn more and to do better in their courses. Students should be able to find and to use effectively campus academic resources to enhance their education.
- To understand the way engineers solve problems. We will study some key engineering problem solving strategies. Upon successful completion of this course, students should be able to apply these strategies to a variety of problems to develop effective solutions and to present their finding to others.

Topics
(Actual schedule may vary according to the needs of the students in the class.)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Class hours (approx.)</th>
<th>Homework/Exam Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to ChE and UNR</td>
<td>3</td>
<td></td>
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<tr>
<td>Curriculum</td>
<td>3</td>
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<tr>
<td>Strategic Learning</td>
<td>3</td>
<td></td>
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<tr>
<td>ChE principles (Chapters 1-7 of Solen &amp; Harb) and Excel</td>
<td>14</td>
<td>90</td>
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<tr>
<td>Examinations (mid-term &amp; final)</td>
<td>2</td>
<td>200</td>
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<tr>
<td>Field trips</td>
<td>9</td>
<td></td>
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<tr>
<td>Project</td>
<td>3</td>
<td>30</td>
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<tr>
<td>Experiment</td>
<td>4</td>
<td>40</td>
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<tr>
<td>Learning styles/teamwork</td>
<td>2</td>
<td></td>
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<tr>
<td>Seminars on ChE education, careers, and student groups</td>
<td>11</td>
<td></td>
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<tr>
<td>Internships</td>
<td>2</td>
<td></td>
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<td><strong>Total</strong></td>
<td><strong>56</strong></td>
<td><strong>360</strong></td>
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Attendance:
Students are expected to attend every class meeting. If for any reason you cannot make it to class, e-mail
the instructor prior to class. If there is an emergency, send the e-mail as soon as possible. Alternate
assignments will be made for missed classes.

Other requirements:
All engineering majors are required to meet with their advisors every semester. Students who do not have a
signed, official Advisement Form on file before the end of the first week of class are automatically dropped
from engineering classes.
All students in ChE 101 must present a signed official Advisement Form for Spring 2000 before the end of
Finals Week to receive a grade in ChE 101.
Before the end of the first week of class, each student must obtain a UNR e-mail account and send a
message to the instructor. You are expected to check your e-mail frequently for course updates.
Homework assignments must be submitted at the beginning of class. Makeup exams are not given. If there
is an emergency, please contact the instructor immediately.
Reading assignments must be completed before class. Active classroom participation is expected. In some
cases, students will make presentations to the rest of the class.

Student conduct is important in this and every class. You will conduct yourself as a professional (or soon
to be professional). Your behavior reflects on your ability to find a job and to be recommended for a job by
those you come in contact with during your tenure at the University of Nevada, Reno, and beyond. In
class, you will be graded according to your conduct and participation. Participation includes attending
class and contributing to a positive learning environment. If a student’s conduct disrupts this positive
environment, this conduct will translate into a loss of points. Keeping the points earned on assignments is
basically a no-brainer for most people—behave yourself, attend class, and take advantage of your situation
here to learn the concepts covered in this class. Students may be asked to answer questions about reading
assignments or topics covered in class. It is a matter of success to you, courtesy to your colleagues, and
safety to the public that you learn the concepts of this and the other courses in the curriculum properly
before you enter an engineering career.

Grading:
A: 324-360 points
B: 288-323 points
C: 252-287 points
D: 216-251 points
F: 0-215 points

The above scale assumes that all attendance and “other requirements” are met.
Extra credit is available for web site contributions. These contributions must describe a Friday seminar, a
field trip, or the laboratory and must be written clearly and without grammatical errors to be accepted. A
maximum of 40 points (10 for each contribution) may be earned.

Workload:
The standard university workload is 3 to 4 hours per week (for 15 weeks) per credit hour.