

## ChE 240-002 – Chemical Process Calculations II

Spring 2017

**Marina Garis**

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**Class Hours:**

**Wednesday & Friday:**

1:00 PM – 2:25 PM

**Classroom:** CKB 223

**Office Hours:**

**Wednesday** 11:30 AM – 1:00 PM or by appointment.

### GENERAL

Chemical Process Calculations II (ChE 240) is one of the fundamental chemical engineering courses along with ChE 210 and ChE 230 for the basic understanding of Chemical Engineering. Please be advised that it is in your best interest to have a thoroughly comprehension of the material imparted for these three courses, what you learn will serve as the foundation for the more demanding courses in upcoming semesters. Spend a **minimum** of 10 hours per week practicing homework problems for this course. Failure to do so will jeopardize a successful completion of this and any future course in Chemical Engineering.

### TEXTBOOK

Felder, R. M., Rousseau, R. W., and Bullard, L. G., “Elementary Principles of Chemical Processes”, 4<sup>th</sup> Edition, John Wiley and Sons, New York, New York, 2016

### REFERENCE TEXTBOOK

Reid, Robert C., Prausnitz, John M. and Poling, Bruce E. “The Properties of Gases and Liquids” 4<sup>th</sup> Edition McGraw – Hill Book Companies, Inc., New York, New York 1987

## **ATTENDANCE**

### **ATTENDANCE IS MANDATORY.**

Our institute has reinstated the attendance policy. Our faculty has passed the following attendance policy.

### **ATTENDANCE POLICY OF UNDERGRADUATE STUDENTS**

1. The attendance policy passed by the faculty includes day and evening undergraduate students.
2. All undergraduates are expected to attend all regularly scheduled classes. In the case of hybrid and fully online classes, participation in discussion forums and other required online activities is expected.
3. Attendance, by itself, shall not constitute a basis for grading except for certain clearly designated courses. These courses include, but are not limited to, all Physics and Mathematics 100 and 200 level courses in which a student missing more than three classes may be required to withdraw.
4. Students who expect to miss classes or exams because of religious observance must submit to their instructors, by the end of the second week of classes, a written list of dates that will be missed. Students are expected to make up missed work. Faculty are expected to make reasonable attempts to accommodate students who are appropriately following this policy.
5. Instructors are obligated to explain clearly, on all syllabi to be distributed at the beginning of each semester, what is expected of students in terms of activities such as class participation, reading assignments, and reports and how these activities factor into student grades.
6. Instructors are not obligated to make allowances for student absences unless those absences are due to illness or similarly unavoidable causes.
7. When, in the opinion of the instructor, a student is jeopardizing the successful completion of the academic requirements of a subject due to excessive absences, the instructor will initiate an absence warning (Academic Warning Notice), which is to be sent to the student by the instructor.
8. It is understood that this policy on attendance is intended to reinforce students' personal responsibility to be present in class in order to:

- a) Gain mastery of the subject matter, ideas, and techniques developed in the course.
- b) Take examinations, tests and quizzes.
- c) Participate in oral presentations, seminars, and field trips.
- d) Participate in-group activities such as laboratory experiments and study projects
- e) Remain fully informed as to class plans, announcements, and assignments.

**HOMEWORK**

This is a “hands-on” material type of course. Homework assignments are the responsibility of the students. Homework problems will be collected and graded.

**WORKSHOP**

There is a workshop in conjunction with this course with another instructor. Attendance is mandatory and at the end of the semester, a Grade of Satisfactory (S) or Unsatisfactory (US) depending upon your performance will be submitted. If you receive a Grade of Unsatisfactory (US) you fail the course and you cannot graduate until you pass the course.

**EXAMINATIONS**

There will be three semester examinations [1 hour and 25 minutes each] and a comprehensive final exam. There will be no make-up exams. Exams will be open book, closed notes.

**COURSE GRADING**

The final course grade will be based upon the following:

Exam 1	20%
Exam 2	20%
Exam 3	20%
Homework/Group work	10%
Final Examination	30%
Total:	100%

## FINAL COURSE GRADE

Generally, the final grade distribution is on the following basis:

85 and above	A
80-84	B+
75-79	B
70-74	C+
65-69	C
55-64	D
< 55	F

DATE	TOPICS	HOMEWORK PROBLEMS
01/18/17	Chapter 5, Sec. 5–4b	Chapter 5 homework: 85, 86, 88
01/20/17	Chapter 6	Chapter 6 homework: 3, 11, 14, 22, 27, 62, 71, 76
01/25/17	Chapter 6	
01/27/17	Chapter 6	
02/01/17	Chapter 7	Chapter 7 homework: 5, 7, 12, 15, 18, 24, 37, 45, 51, 59, 61, 65
02/03/17	Chapter 7	
02/08/17	Chapter 7	
<b>02/10/17</b>	<b>Exam 1: Chapter 5, Sec. 5–4b, Chapter 6, Chapter 7</b>	
02/15/17	Chapter 8	Chapter 8 homework: 19, 27, 31, 34, 35, 36, 56, 58, 61, 62, 85, 86, 92, 97, 98, 101, 111, 113, 114, 115
02/17/17	Chapter 8	
02/22/17	Chapter 8	
02/24/17	Chapter 8	
03/01/17	Chapter 8	
03/03/17	Chapter 8	

03/08/17	Chapter 8	
03/10/17	Chapter 8	
03/22/17	Chapter 8	
<b>03/24/17</b>	<b>Exam 2: Chapter 8</b>	
03/29/17	Chapter 9	Chapter 9 homework: 5, 6, 8, 9, 12, 15, 17, 18, 23, 24, 26, 44, 48, 49, 57, 64, 66, 73, 74
03/31/17	Chapter 9	
04/05/17	Chapter 9	
04/07/17	Chapter 9	
04/12/17	Chapter 9	
04/19/17	Chapter 9	
04/21/17	Chapter 9	
<b>04/26/17</b>	<b>Exam 3: Chapter 9</b>	
04/28/17	Chapter 10	Chapter 10 homework: 21, 23, 25, 27
05/02/17	Chapter 10	
	Final Exam TBA	