

Prairie View A&M University
Chemical Engineering Department
CHEG 1021-P01: Introduction to CHEG Lab
Fall 2019 Syllabus

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Office Hours: W 11 - 2 p.m.; TR 11:00 - 1:00 p.m.

COURSE

Meeting Time: T 3:00 – 5:50 p.m.

Location: C.L. Wilson 202

Prerequisites: Senior standing in the Chemical Engineering major. CHEG 3062 and MATH 4173

References:

1. “Spreadsheet Tools for Engineers Using Excel Including Excel 2002” by Byron S. Gottfried, McGraw Hill (Boston, 2003), ISBN 0-07-248068-8
2. “Basic Principles and Calculations in Chemical Engineering” by David Himmelblau, 7th Edition (2003), Prentice Hall, ISBN 978-0-131-40634-6

Overview: This course will introduce freshmen to chemical engineering as a field of study and professional practice and explore the role of chemical engineers in society and the importance of chemical engineering in our daily life. To provide freshmen an understanding of the basics of engineering activities and become familiar with engineering terminology, methods, and tools used by engineers and engineering companies in accordance with ABET.

Description: **(1-0) Credit 1 semester hours.** Introduction to the field of engineering, industries, careers, and the curriculum. Basic engineering terms, concepts, calculations problem solving skills, ethics, and computer applications.

Course Outcomes/Objectives

At the end of this course, the student will have achieved and demonstrated the following outcomes.

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| 1 | Be able to present the role of engineers in society, career opportunities, career paths, job environment, and performance expectations. |
| 2 | Be able to state academic performance expectations for chemical engineering students and discuss (a) curriculum synergy and how it applies to their professional careers, (b) computer facilities, tutoring, student professional societies, and other campus resources, and (c) successful studying habits to help students get the most out of a course. |
| 3 | Be able to solve engineering problems using engineering problem solving strategies and computer applications software. |
| 4 | Be able to work in a teamwork to solve engineering problems |
| 5 | Be able to effectively communicate ideas using both oral and written communications |
| 6 | Be able to discuss the importance of continuing education and the process for becoming a professional engineer. |
| 7 | Be able to assist advisor in academic and career planning. |
| 8 | Be able to design experiments, and collect and analyze data |
| 9 | Be able to understand their ethical and professional responsibility as an engineer |

GRADING POLICY

Item	Points
Homework	200
Class Activities/Projects	250
Midterm	300
Final	250
<i>Complete Course Notebook</i>	<i>Extra 50</i>

Grade Scale:	Points
A =	1000 - 900
B =	899 - 800
C =	799 - 700
D =	699 - 550
F =	549 or below

A signifies that the student has mastered the subject matter and understands all concepts covered.

B signifies that the student has a good understanding of the subject matter with few exceptions.

C signifies that the student has an adequate understanding of the material and can follow most concepts.

D signifies that the student does not understand important class concepts needed to be successful in future courses.

F signifies that the student has missed significant assignments or does not understand several concepts.

TESTS & TESTING POLICY

- All tests are closed book and closed notes.
- **NO MAKE-UP EXAMS WILL BE GIVEN.** A missed exam due to an excusable absence will not be added into the students Test Average; instead, only two tests will count for that student. **NO EXCEPTIONS!**
- No electronic device will be allowed including iPads and eReaders.
- No graphing or programmable calculators are allowed for any test or quiz. Students must purchase a small scientific calculator to use on exams. A cell phone cannot be used as a replacement for a calculator on an exam. Doing so will result in a zero.
- No bathroom breaks are allowed during a test. If a student leaves the room during this time, their exam/quiz will be collected and considered finished by the student.
- Any act of cheating will result in a grade of zero for that student, and the student will be referred to the department head. Such meetings must take place within a week of the violation.

HOMEWORK POLICY & GUIDELINES

- This course involves the usage of computer software. Several individual and group assignments will be given throughout the semester.
- Specific homework assignments will be given throughout the semester as the instructor examines the specific need of the class.
- **Students must submit these assignments BEFORE the beginning of class.**
- If a student chooses to disobey the university's honor code and copy the solution manual instead of submitting the student's own independent work, the student will receive a grade of zero on the assignment and will be referred to the department head. Such meetings must take place within a week of the infraction.
- **All homework assignments must be submitted on engineering paper.**
- Write only on the front of the paper.
- Staple assignment if it is more than one page.
- Write your name, date, and assignment number on the front page.
- Number your pages! From time-to-time, students staple the pages out of order.
- Homework is due at the beginning of the class period. **Late homework assignments will NOT be accepted!**

CLASS ACTIVITIES AND PARTICIPATION GRADES

- Students are expected to attend class on a regular basis and are expected to participate in classroom discussions. A student who fails to attend class is risking a poor mark in this area.
- There are zero opportunities to makeup a class activity.
- Students must submit these assignments during a given time frame.

FINAL EXAM PROCEDURES

- The comprehensive final exam is closed book.
- All students are required to take the final exam. No exemptions are given.
- It is the student's responsibility to arrive on time for the exam with all of the needed materials.

TENTATIVE LECTURE SCHEDULE

Wk	Lecture Topic	Reading Assignment	Graded Assignment
1	Introduction; Meet and greet; discuss syllabus.	Excel Basics	
2	Microsoft Excel Basics HOLIDAY: 9/2		
3	Creating/Maintaining a Course Binder; Using Engineering Paper	Matlab Basics	<i>Homework 1</i>
4	Introduction to Matlab	Ethics	<i>Homework 2</i>
5	Ethics in Engineering (Review Case Studies in Groups)		<i>Homework 3</i>
6	Case Study Debate #1		
7	Class Lab Activity #1 (Conversions using Mass, Mole, and Density)		
8		Plagiarism Scenarios	<i>Midterm Exam</i>
9	Preventing Plagiarism Presentation Case Study Debate #2		
10	Class Lab Activity #2 (Dimensions, Systems of Units, Significant Figures)	CHEG Processes	<i>Homework 4</i>
11	Introduction to Chemical Engineering Processes		<i>Homework 5</i>
12	AIChE Conference; (Groups meet to prepare for presentations)		
13	Group Presentations		
14	Group Presentations Holiday 11/28		
15	Review for Final: 12/2		
	Final Exam Period Final Exam Period: TBD		<i>Final Exam</i>

UNIVERSITY RULES AND PROCEDURES

Disability statement (See Student Handbook)

Students with disabilities, including learning disabilities, who wish to request accommodations in class should register with the Services for Students with Disabilities (SSD) early in the semester so that appropriate arrangements may be made. In accordance with federal laws, a student requesting special accommodations must provide documentation of their disability to the SSD coordinator.

Academic misconduct (See Student Handbook)

You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with your Student Handbook, especially the section on academic misconduct. Students who engage in academic misconduct are subject to university disciplinary procedures.

Forms of academic dishonesty

1. Cheating: deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not mastered; giving or receiving aid unauthorized by the instructor on assignments or examinations.
2. Academic misconduct: tampering with grades or taking part in obtaining or distributing any part of a scheduled test.
3. Fabrication: use of invented information or falsified research.
4. Plagiarism: unacknowledged quotation and/or paraphrase of someone else's words, ideas, or data as one's own in work submitted for credit. Failure to identify information or essays from the Internet and submitting them as one's own work also constitutes plagiarism.

Nonacademic misconduct (See Student Handbook)

The university respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise. Campus behavior that interferes with either (1) the instructor's ability to conduct the class, (2) the inability of other students to profit from the instructional program, or (3) campus behavior that interferes with the rights of others will not be tolerated. An individual engaging in such disruptive behavior may be subject to disciplinary action. Such incidents will be adjudicated by the Dean of Students under nonacademic procedures.

Sexual misconduct (See Student Handbook)

Sexual harassment of students and employers at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating this policy will be subject to disciplinary action.

Attendance Policy

Prairie View A&M University requires regular class attendance. Excessive absences will result in lowered grades. Excessive absenteeism, whether excused or unexcused, may result in a student's course grade being reduced or in assignment of a grade of "F". Absences are accumulated beginning with the first day of class.

Student Academic Appeals Process

Authority and responsibility for assigning grades to students rests with the faculty. However, in those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance, the student has a right to appeal by the procedure listed in the Undergraduate Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.