

Chemical Engineering Laboratory I – 40579 – CHEE 4500 – 001

Section 001: Thursday 8:00 - 8:50 AM, PL 3070; Thursday 9:00 AM -12:00 PM, NI 1070

Section 002: Tuesday 12:00 - 12:50 PM, PL 3170; Tuesday 1:00 - 4:00 PM, NI 1070

"If you're the boss, and you like to play golf, you will find that the people below you play golf too. And if you're concerned about safety, they'll be concerned about safety!" Bao-Lang Chen, Chairman, Formosa Petrochemical. Chemical and Engineering News, p. 1 & p. 13, Vol 90, No. 1, Jan. 2, 2012.

Prerequisites

CHEE 2110: Process Fluid Mechanics; CHEE3030: Separation Processes; CHEE3110: Heat Transfer

Student Learning Outcomes

Students are expected to demonstrate the following outcomes during the course of the semester:

1. an ability to apply knowledge of mathematics, science, and engineering
2. an ability to design and conduct experiments, as well as to analyze and interpret data
3. an ability to function on multi-disciplinary teams
4. an ability to identify, formulate, and solve engineering problems
5. an understanding of professional and ethical responsibility (including safety and environmental concerns)
6. an ability to communicate effectively
7. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

Textbook

None. Experimental procedures are available on Blackboard along with the format for Preand Final laboratory reports.

Instructor

Thihal Ponnaiyan, Lecturer, NI1065-A, Thehazhnan.Ponnaiyan@utoledo.edu

Office Hours

I am available whenever I am in the office unless otherwise occupied. Special meeting times can be arranged on request.

TA

Greg Avery, Greg.Avery@rockets.utoledo.edu

Course Communications and Access to Course Content

- Students, Instructors, and Teaching Assistants will access all course documents and communicate via the Blackboard web assisted course site at <http://blackboard.utdl.edu/>.
- Laboratory experiments will be conducted in NI 1070.
- Lectures will be conducted in PL 3070.

Laboratory Notebook

Each group should obtain a notebook from the department secretary in NI3048, and record in it all data from lab experiments.

Experiments

- A. Centrifugal Pump in a Piping Network, 1stFloor, NI1070
- B. Heat Transfer, 1stFloor, NI1070
- C. Pump Characteristics and Flow Measurement, 2ndFloor, NI1070
- D. Distillation, 2ndFloor, NI1070

Grading

Letter grades will be assigned based on the percentage of points accumulated using the scale: A, 100-90; B, 89-80; C, 79-70; D, 69-60; F, 59-. The point total will consist of a sum of the following items:

Pre-Laboratory Reports (4, graded by instructor and TA)	20%
Final Laboratory Reports (4, 1 long and 3 short graded by instructor and TA)	50%
Oral Presentation (2, graded by instructor and TA)	20%
Leadership/Participation (graded by students, instructor, and TA)	10%

- Pre-Laboratory Preparation: Each team member must read and understand the lab experiment instructions before coming to the lab. A team leader's responsibility includes making sure all team members come to the lab well-prepared. Instructor and TA will verify preparedness by inspecting performance and asking questions.
- Written Report Guidelines: Obtain detailed explanation from class web site. The first report is the only report in the long format.
- Oral Presentation Instructions: Obtain detailed explanation from class web site.
- Leadership: Each team member must take a leadership role at least once. When turning in each final report, every team member must fill out and submit a team assessment form.
- Participation: Students attend all lectures and labs. Being late or absent from class reduces grade by one-half letter grade for each absence. Student must notify instructor at least one day before a lab or lecture to avoid a penalty.

Academic Policies

Students are responsible for following all academic policies of the University. The student handbook is available at:

<http://www.utoledo.edu/studentaffairs/index.html>

Academic Policies can be read in their entirety on the Academic Policy Webpage at:

<http://www.utoledo.edu/policies/academic/undergraduate/index.html>

Academic Dishonesty

Academic dishonesty will not be tolerated. Among the aims of education are the acquisition of knowledge and development of the skills necessary for success in any profession. Activities inconsistent with these aims will not be permitted. Students are responsible for knowing what constitutes academic dishonesty. If students are uncertain about what constitutes plagiarism or cheating they should seek the instructor's advice. For examples of Academic dishonesty please visit the policy webpage.

Cheating/Plagiarism

All students are expected to adhere to the academic integrity policy found in the UT Student Handbook. Students found cheating or plagiarizing will be referred for appropriate disciplinary action.

Missed Class Policy

Students are expected to attend every class meeting of courses in which they are registered. Only in specific, unavoidable situations does the university excuse absences from class (see policy for specific on excused absences).

Academic Accommodations

Any student who feels s/he may need an accommodation based on the impact of a disability should contact me privately to discuss. Students with documented disabilities need to contact the Office of Accessibility at 419.530.4981 in RH 1820 to coordinate reasonable academic accommodations in accordance with ADA and Section 504 of the Rehabilitation Act of 1973.

Adding a Course

A student may add a course within the first five calendar days of fall or spring term with no signature required as long as a seat is available. Student wishing to add a class between the sixth calendar day and the 15th calendar day inclusively of a new term may be able to do so with approval and signature of the course instructor. A late registration fee is assessed for initial registrations on or after the first day of the semester. The form to add a class is available on the registrar's web site. For more information visit the policy webpage.

Dropping a Course

An undergraduate student has the right to make changes to their schedule of classes prior to the end of business on the fifteenth calendar day of the term. Summer sessions within the summer term are prorated.

Class Schedule Section 001

Week	Date	Activity
1	27-Aug	Class Overview
2	3-Sep	Pre-lab 1
3	10-Sep	Lab 1
4	17-Sep	
5	24-Sep	Pre-lab 2 (Report 1 Due)
6	01-Oct	Lab 2
7	8-Oct	
8	15-Oct	Pre-lab 3 (Report 2 Due)
9	22-Oct	Lab 3
10	29-Oct	Oral Presentations
11	5-Nov	Pre-lab 4 (Report 3 Due)
12	12-Nov	Lab 4
13	19-Nov	
14	26-Nov	Thanksgiving, No Class
15	3-Dec	(Report 4 Due)
16	10-Dec	Oral Presentations

Groups

Group	Members				
1	Alabbad, Mohammed A.	Aldurihem, Mohannd A.	Alkahtani, Theb F.	Baker, Alexis R.	Borton, Mathew
2	Enoch, Jared P.	Gable, Aaron J.	Hoffman, John R.	Lancia, Brittney P.	Leavens, Shane R.
3	Leopold, Chris D.	Pickrell, Paxton J.	Robbins, Ashley N.	Rogers, Cameron H.	Spudie, Alexa D.
4	Villa-Chandler, Isaiah E.	Watson, Rachel M.	Winslow, Patrick A.	Xiong, Yiqu	Zalesak, Cory J.

Experiments

Laboratory	Group Number			
	1	2	3	4
9/3	A	B	C	D
9/24	B	C	D	A
10/15	C	D	A	B
11/5	D	A	B	C

Class Schedule Section 002

Week	Date	Activity
1	25-Aug	Class Overview
2	1-Sep	Pre-lab 1
3	8-Sep	Lab 1
4	15-Sep	
5	22-Sep	Pre-lab 2 (Report 1 Due)
6	29-Sep	Lab 2
7	6-Oct	Fall Break, No Class
8	13-Oct	
9	20-Oct	Pre-lab 3 (Report 2 Due)
10	27-Oct	Lab 3
11	3-Nov	Oral Presentations
12	10-Nov	Pre-lab 4 (Report 3 Due)
13	17-Nov	Lab 4
14	24-Nov	
15	1-Dec	(Report 4 Due)
16	8-Dec	Oral Presentations

Groups

Group	Members			
1	Beddies, Corey M.	Calvillo, Jose E.	Kremer, Ryan J.	
2	Matuszewski, Eric A.	Matzinger, Zachary S.	Mettler, Alexis H.	
3	Murawa, Jacob	Reck, Sean P.	Schmidt, Ryan	
4	Shrider, Derek A.	Siebeneck, Jacob L.	Zamora, Kyle J.	

Experiments

Laboratory	Group Number			
	1	2	3	4
9/1	A	B	C	D
9/22	B	C	D	A
10/20	C	D	A	B
11/10	D	A	B	C