



ChE 144

Chemical Engineering Research II

Course Description: Continuation of ChE 143. Research project implementation.

Course Prerequisite: ChE 143

Course Credit: 2.0 units (6 h laboratory)

Program Educational Objectives (BS Chemical Engineering)

The program aims to educate students such that three to five years from graduation, they:

1. take leadership roles in their respective fields and/or effectively work in or manage a team;
2. are equipped with the extensive knowledge and relevant skills necessary to succeed in their chosen careers and to become responsive citizens;
3. are able to demonstrate strong research & innovative capability as they recognize and address opportunities and challenges in their respective spheres of influence;
4. have shown strong commitment to the ethical practice of their profession; to health, safety and environment; and service to society.

Course Outcomes

At the end of the course, the student should be able to:

1. Prepare experimental setup and gather data,
2. Analyze and present data from experiments,
3. Write a complete scientific article, and
4. Present a scientific paper (posters and oral presentations)
5. Perform risk assessments of planned activities and observe good housekeeping; and
6. Prepare final reports including financial and clearance reports.

Student Outcomes Satisfied by Course Outcomes

- [a] Ability to apply knowledge of mathematics and science to solve engineering problems
- [b] Ability to design and conduct experiments, as well as to analyze and interpret data
- [c] Ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability, in accordance with standards
- [d] Ability to function on multidisciplinary teams
- [e] Ability to identify, formulate, and solve engineering problems
- [g] Ability to communicate effectively
- [i] Recognition of the need for, and an ability to, engage in life-long learning
- [k] Ability to use the techniques, skills, and modern tools for engineering practice

Course Assessment

Final Technical Report	40%
Research Report formatted as a scientific journal article	20%
Discussions and Oral Presentations	40%

Presentation in the Colloquium is required.

Gantt Chart of activities and a report as to how this was followed is to be submitted at the end of the semester (template will be provided).

Peer evaluations for group mates must also be submitted (template will be provided).

Grading System

1.00	1.25	1.50	1.75	2.00	2.25	2.5	2.75	3.00	5.00
[92,100]	[88,92)	[84,88)	[80,84)	[76,80)	[72,76)	[68,72)	[64,68)	[60,64)	[0,60)

List of Instructors

Dr. Rizalinda de Leon

Dr. Bryan Pajarito

Dr. Maria Lourdes Dalida

Dr. Terence Tumolva

Dr. Jose Muñoz

Dr. Analiza Rollon

Dr. Florencio Ballesteros, Jr.

Dr. Joey Ocon

Prof. Ralph Villa

Prof. Kristian July Yap

Prof. Jonas Karl Christopher Agutaya

Prof. Jhud Mikhail Aberilla

Prof. Karl Ezra Pilario

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