The University of Western Ontario

Faculty of Engineering

DEPARTMENT OF CHEMICAL & BIOCHEMICAL ENGINEERING

CBE 4415 – Chemical Engineering Project

2026-2027

Course Description
Selection and investigation of an engineering problem. Analytical and/or experimental work is carried out by individual students under the supervision of a faculty member. Progress reports, a final engineering report and a public lecture are required. It is the responsibility of the student to identify a supervisor and suitable engineering problem for investigation before registering in the course.

Antirequisite(s): CBE 4425, CEE 4440, MME 4410, the former GPE 4415.

Prerequisite(s): Completion of third year of the Chemical Engineering program with a minimum 78% third year term average and permission of the department.

Extra Information: 6 laboratory hours.

Course Weight: 1.00

Coordinator:

- Anand Prakash (coordinator), Ph.D., P.Eng., TEB 441, email: aprakas2@uwo.ca t.: 519-661-2111 ex. 88528

Evaluation / Mark Distribution:

Research Proposal	5 %
Progress Oral presentation	15 %
Abstract for oral presentation	Required as part of final presentation
Final Oral or Poster presentation	20 %
Final written port	60 %
Total	100 %

Due dates are as follows:

Project Proposal	1st Friday of Oct.
Progress Oral Presentation	TBA (Late Nov – Early Dec.)
Abstract for oral presentation	2nd Friday of March
Final Oral or Poster Presentations	TBA (after CBE 4497 presentations)
Formal Written Report	The study day in April

Project Proposal (Written)

The research proposal should cover the following (3-5 pages):

Project Proposal, due first Friday of October, no presentation (worth 5%)

Research Proposal Marking - _____		
Items	Percent	Mark
Background introduction, significance of the research	20%	
Research objective	20%	
Methodology	30%	
Research plan and timeline	20%	
References (Enough to support the proposal)	5%	
Structure, logic, grammar (Clear, logical, with enough explanation)	5%	
Total mark		

The Research Progress Report (Oral)

The research progress report should cover the following:

Progress Report, presentation only, late Nov – early Dec. (worth 15%)

Progress Report Marking - _____		
Items	Percent	Mark
Background introduction, significance of the research	10%	
Short literature review – covering all essential areas?	10%	
Research objectives	10%	
Experimental design, equipment description, experimental procedure (For modelling work -- theory, analytical steps, calculation procedures)	20%	
Results thus far and discussion	30%	
Research Plan for the next few months and expected new results	10%	
Figures/tables (Clear and informative, enough to support the presentations - can draw your own additional figures)	5%	
Structure, logic, grammar (Clear, logical, with enough explanation)	5%	
Total mark		

The Final Presentation (Oral or Poster)

The Final Presentation (Oral or Poster) should cover the following:

Oral or Poster Presentation TBA (after CBE 4497 presentations) (worth 20 %)

Final Report Marking - _____		
Items	Percent	Mark
Background introduction, significance of the research etc. (correct, clear and easy to follow?)	10%	
Short literature review (comprehensive and covering essential areas?)	10%	
Experimental design, equipment description, experimental procedure (For modelling work -- theory, analytical steps, calculation procedures)	20%	
Results presentation (logical, informative ?)	25%	
Discussion (new points, arguments, and contributions)	25%	
Figures/tables (Clear and informative, enough to support the presentations)	5%	
Presentation style: logic, voice, body language , grammar	5%	
Total mark		

The Final Report (Written)

The final report should cover the following: (30-50 pages)

Formal written report: due the study day in April (worth 60 %)

Final Report Marking - _____		
Items	Percent	Mark
Background introduction, significance of the research etc. (correct, clear and easy to follow?)	10%	
Short literature review (comprehensive and covering all essential areas?)	10%	
Experimental design, equipment description, experimental procedure (For modelling work -- theory, analytical steps, calculation procedures)	20%	
Results presentation (logical, informative ?)	20%	
Discussion (new points, arguments, and inputs)	20%	
Figures/tables (Clear and informative to support the arguments, discussions)	5%	
References (complete?)	5%	
Structure, logic, grammar (Clear, logical, with enough explanation)	5%	
Report format (correct?) (Title, abstract, table of content, lists of tables/figures, sections with proper titles, conclusion, nomenclature, reference citation; tables and figures inserted right after they are referred.)	5%	
Total mark		