CHEMICAL ENGINEERING (THESIS) (M.SC.) (45 CREDITS)

Offered by: Chemical Engineering (Faculty of Engineering)
Degree: Master of Science
Program credit weight: 45

Program Description

The M.Sc. in Chemical Engineering (Thesis) is a research-oriented program that focuses on advanced materials and polymers, biomedical engineering and biotechnology, environmental engineering, energy, plasma science and artificial intelligence-assisted design and optimization. This program offers advanced training in fundamentals as well as research methods, laboratory safety and research ethics and is, therefore, the more relevant program for those whose primary interest is research as well as a suitable preparation for a career in industry.

Note: For information about Fall 2025 and Winter 2026 course offerings, please check back on May 8, 2025. Until then, the "Terms offered" field will appear blank for most courses while the class schedule is being finalized.

Thesis Courses (31 credits)

Expand allContract all

Course	Title	Credits
CHEE 697	Thesis Proposal.	6
CHEE 698	Thesis Research 1.	12
CHEE 699	Thesis Research 2.	13

Required Courses (4 credits)

Expand allContract all

Course	Title	Credits
CHEE 681	Laboratory Safety 1.	1
CHEE 682	Laboratory Safety 2.	1
CHEE 687	Research Skills and Ethics.	2

Complementary Courses (10 credits)

4 credits from the following:

Expand allContract all

Course	Title	Credits
CHEE 611	Heat and Mass Transfer.	4
CHEE 621	Thermodynamics.	4
CHEE 631	Foundations of Fluid Mechanics.	4
CHEE 641	Chemical Reaction Engineering.	4
CHEE 651	Advanced Biochemical Engineering.	4
CHEE 662	Computational Methods.	4
CHEE 672	Process Dynamics and Control.	4
CHEE 688	Advanced Materials in Chemical Engineering.	4

A minimum of 3 credits of Chemical Engineering courses at the 500, 600, or 700 level.

Any remaining complementary course credit requirements may be fulfilled by completing Chemical Engineering or other Engineering or Science courses at the 500, 600, or 700 level.