

Bachelor of Engineering in Chemical Engineering (International Program)

DEPARTMENT OF CHEMICAL ENGINEERING

FACULTY OF ENGINEERING

MAHIDOL UNIVERSITY

Study plan

Year 1 Semester 1

Course code	Course Name	Credits (lecture-practice-self study)
EGCG 171	Engineering Drawing	3 (2-3-5)
LAEN 180	English for Academic Purposes I	2 (2-0-4)
SCCH 161	General Chemistry	3 (3-0-6)
SCCH 169	Chemistry Laboratory	1 (0-3-1)
SCID 201	Learning Techniques	1 (1-0-2)
SCMA 101	Mathematics I	2 (2-0-4)
SCPY 111	Physics Laboratory I	1 (0-3-1)
SCPY 161	General Physics I	3 (3-0-6)
SCXX XXX	General Education (Basic Science and Mathematics)	3 (3-0-6)
Total		19 (16-9-35)

Year 1 Semester 2

Course code	Course Name	Credits (lecture-practice-self study)
EGCG 172	Computer Programming	3 (2-2-5)
EGCG 101	Chemical Engineering Principles and Calculations	3 (3-0-6)
LAEN 181	English for Academic Purposes II	2 (2-0-4)
SCMA 102	Mathematic II	4 (4-0-8)
SCPY 112	Physics Laboratory II	1 (0-3-1)
SCPY 162	General Physics II	3 (3-0-6)
SCXX XXX	General Education (Basic Science and Mathematics)	3 (3-0-6)
Total		19 (17-5-36)

Year 2 Semester 1

Course code	Course Name	Credits (lecture-practice-self study)
EGCG 201	Chemical Engineering Thermodynamics I	3 (3-0-6)
EGCG 202	Chemical Engineering Safety	3 (3-0-6)
EGCG 211	Chemical Engineering Laboratory I	1 (0-3-1)
EGCG 271	Engineering Mathematics	3 (3-0-6)
EGCG 272	Probability and Statistics	3 (3-0-6)
LAEN 283	Academic Presentations in English	2 (2-0-4)
LALA 280	Philosophy for Today's Life	3 (3-0-6)
Total		18 (17-3-35)

Year 2 Semester 2

Course code	Course Name	Credits (lecture-practice-self study)
EGCG 203	Chemical Engineering Thermodynamics II	3 (3-0-6)
EGCG 204	Chemical Engineering Fluid Mechanics	3 (3-0-6)
EGCG 205	Heat Transfer	3 (3-0-6)
EGCG 212	Chemical Engineering Lab II	1 (0-3-1)
EGCG 273	Engineering Mechanics	3 (3-0-6)
EGCG 274	Applied Numerical Methods for Engineers	3 (2-3-5)
EGID 490	English Communication for Engineers	3 (3-0-6)
Total		19 (20-6-42)

Year 3 Semester 1

Course code	Course Name	Credits (lecture-practice-self study)
EGCG 301	Chemical Engineering Kinetics and Reactor Design	3 (3-0-6)
EGCG 302	Mass Transfer	3 (3-0-6)
EGCG 303	Particle Technology	3 (3-0-6)
EGCG 304	Chemical Engineering Economics and Cost Estimation	3 (3-0-6)
EGCG 305	Engineering Materials	3 (3-0-6)
EGCG 311	Chemical Engineering Lab III	1 (0-3-1)
LAEN/ XXX SHHU	General Education (Social Sciences and Humanities)	2 (2-0-4)
Total		18 (17-3-35)

Year 3 Semester 2

Course code	Course Name	Credits (lecture-practice-self study)
EGCG 306	Environmental Chemical Engineering	3 (3-0-6)
EGCG 307	Process Equipment Design	3 (3-0-6)
EGCG 312	Chemical Engineering Lab IV	1 (0-3-1)
EGCG 313	Computer Applications in Chemical Engineering	3 (2-3-5)
EGCG 371	Fundamentals of Electrical Engineering	3 (2-3-5)
LAEN/ XXX SHHU	General Education (Social Sciences and Humanities)	2 (2-0-4)
PRPR 101	Population and Development	2 (2-0-4)
Total		17 (14-9-31)

Year 3 Summer

Course code	Course Name	Credits (lecture-practice-self study)
EGCG 395	Engineering Training	1 (0-35-10)
Total		1 (0-35-10)

Year 4 Semester 1

Course code	Course Name	Credits (lecture-practice-self study)
EGCG 401	Process Dynamics and Control	3 (3-0-6)
EGCG 402	Transport Phenomena	3 (3-0-6)
EGCG 495	Project Seminar	1 (0-3-1)
EGCG XXX	Chemical Engineering Elective	3 (3-0-6)
EGCG XXX	General Education (Social Sciences and Humanities)	3 (3-0-6)
PRPR 102	Regional Studies	2 (2-0-4)
XXXX XXX	Free Elective	3 (3-0-6)
Total		18 (17-3-35)

Year 4 Semester 2

Course code	Course Name	Credits (lecture-practice-self study)
EGCG 403	Chemical Engineering Plant Design	3 (3-0-6)
EGCG 496	Chemical Engineering Project	3 (0-9-3)
EGCG XXX	Chemical Engineering Elective	3 (3-0-6)
XXXX XXX	Free Elective	3 (3-0-6)
Total		12 (9-9-21)