

DEPARTMENT OF CHEMICAL ENGINEERING
College of Engineering
University of the Philippines Diliman

PROPOSED PROGRAM OF STUDY

BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING
153 units

FIRST YEAR

1st Semester	20	units	Grade	2nd Semester	19	units	Grade
ChemE 101		3	_____	ChemE 102		3	_____
ChemE 103		1	_____	ChemE 105		3	_____
Chem 16		3	_____	Chem 17		3	_____
Chem 16.1		2	_____	Chem 17.1		2	_____
Math 21 ¹		4	_____	Math 22		4	_____
Physics 71		4	_____	Physics 72		4	_____
Eng 13/Speech 30		3	_____	PE		(2)	_____
PE		(2)	_____				_____

SECOND YEAR

1st Semester	20	units	Grade	2nd Semester	20	units	Grade
ChemE 104		1	_____	ChemE 123		3	_____
ChemE 106		3	_____	ChemE 130		3	_____
ChemE 122		3	_____	ChemE 131		3	_____
Chem 28		3	_____	Chem 31		3	_____
Chem 28.1		2	_____	Chem 31.1		2	_____
ES 101		4	_____	Kas 1		3	_____
Math 23		4	_____	Philo 1		3	_____
PE		(2)	_____	PE		(2)	_____
NSTP ²		(3)	_____	NSTP ²		(3)	_____

THIRD YEAR

1st Semester	19	units	Grade	2nd Semester	19	units	Grade
ChemE 128		4	_____	ChemE 133		3	_____
ChemE 132		4	_____	ChemE 143		2	_____
ChemE 134		3	_____	ChemE 145		2	_____
ChemE 135		2	_____	ChemE 170		3	_____
ES 102		3	_____	ARTS 1		3	_____
FIL 40		3	_____	Soc Sci 1/Soc Sci 2		3	_____
			_____	STS 1/DRMAPS		3	_____

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FOURTH YEAR

1st Semester	17 units	Grade	2nd Semester	19 units	Grade
ChemE 144	2	_____	ChemE 136	2	_____
ChemE 146	3	_____	ChemE 147	3	_____
ChemE 151	3	_____	ChemE 191	2	_____
ChemE 182	3	_____	S&T Elective ⁴	3	_____
Track Elective ³	3	_____	B&M Elective ⁵	3	_____
GE Elective	3	_____	PI 100	3	_____
		_____	GE Elective	3	_____

¹ All students required to take Math 21 must have passed any of the following: (1) Pre-Calculus from the STEM or equivalent strand of K-12; (2) the Validation Examination for Math 20 (Pre-Calculus: Functions and their Graphs) administered by the UPD Institute of Mathematics; or (3) Math 20 as a non-credit course.

² As a requirement for graduation, all students must take six (6) units in one of the National Service Training Program (NSTP) components: Civil Welfare Training Service (CWTS), Literacy Training Service (LTS), and Reserved Officers' Training Corps Military Science (ROTC Mil Sci). These are offered by UPD.

³ **TRACK ELECTIVES:**

- ChE 150 Environmental Process Engineering
- ChE 153 Industrial Pollution Control
- ChE 171 Introduction to Biochemical Engineering
- ChE 174 Biochemical Engineering Laboratory
- ChE 197 Special Topics^a
- ChE 198 Special Problems^a
- EEE 1 Essentials of Electrical and Electronics Engineering
- EgyE 101 Introduction to Energy Engineering

Other research-related courses as recommended by the research adviser and approved by the Department.

^aResearch-based topics as recommended by the research adviser and approved by the Department.

⁴ **SCIENCE AND TECHNOLOGY ELECTIVES:**

- ChE 197 Special Topics^b
- ChE 198 Special Problems^b
- Chem 156 Introduction to Quantum Chemistry
- CE 21 Engineering Statistics
- CE 131 Elements of Environmental Engineering
- EEE 1 Essentials of Electrical and Electronics Engineering
- EEE 4 Industrial Electronics and Equipment
- EEE 5 Introduction to Semiconductor Devices and Circuit Theory
- EgyE 101 Introduction to Energy Engineering
- FS 101 Introduction to Food Technology
- IE 27 Probability and Statistics for Industrial Engineering
- IE 41 Operations Research I



1	Geol 11	Principles of Geology
2	MatE 10	Engineering Materials
3	MatE 11	Fundamentals of Materials Engineering I
4	ME 10	Survey of Manufacturing Processes
5	ME 73	Mechanical Measurement and Instrumentation
6	MetE 11	Principles of Metallurgy
7	MetE 143	Elements of Materials Science
8	MS 102	The Marine Sciences
9	Stat 101	Elementary Statistics
10	Stat 114	Descriptive Statistics

11 Other courses offered by other units as recommended by the program adviser and
 12 approved by the Department, including another Track Elective.

13 ^bAny science and technology-centered topics, including research-based topics, as
 14 recommended by the program adviser and approved by the Department.
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16 ⁵ **BUSINESS AND MANAGEMENT ELECTIVES:**

17	Acctg 1	Introduction to Financial Accounting
18	BA 101	Introduction to Business Management
19	BA 102	Philippine Business Environment
20	BA 151	Human Behavior in Organizations
21	ChE 197	Special Topic: Project Management for Chemical Engineers
22	Econ 100.1	Introduction to Macroeconomic Theory and Policy
23	Econ 100.2	Introduction to Microeconomic Theory and Policy
24	IE 3	Introduction to Industrial Engineering
25	IE 41	Industrial Organization and Management
26	IE 138	Manufacturing Management
27	IE 159	Introduction to Technology Technopreneurship
28	IE 197	Special Topic: Technopreneurship

29 Other courses as recommended by the program adviser and approved by the Department.
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