BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

(approved 09 July 2018; effective First Semester of AY 2018-2019)

		Subject	Course Title	Prerequisites, Corequisites & Stipulations	Credit Unit
FIRST YEAR	First Semester	ChemE 101	Chemical Engineering Process Analysis I	none	3
		ChemE 103	Chemical Engineering Practice I	none	1
		Chem 16	General Chemistry I	*coreq Chem 16.1*	3
		Chem 16.1	General Chemistry I Laboratory	*coreq Chem 16*	2
		Math 21	Elementary Analysis I	Math 20 or High School Precalculus[1]	4
		Physics 71	Elementary Physics I	*coreq Math 21*	4
		Eng 13 / Speech 30	Writing as Thinking / Public Speaking and Persuasion	none	3
		PE	Physical Education	none	(2)
					20
	Second Semester	ChemE 102	Chemical Engineering Process Analysis II	ChemE 101	3
		ChemE 105	Mathematical Methods in Chemical Engineering I	Math 21, *coreq ChemE 102*	3
		Chem 17	General Chemistry II	Chem 16 & Chem 16.1; *coreq Chem 17.1*	3
		Chem 17.1	General Chemistry II Laboratory	*coreq Chem 17*	2
		Math 22	Elementary Analysis II	Math 21	4
		Physics 72	Elementary Physics II	Physics 71	4
		PE	Physical Education	none	(2)
					19
SECOND YEAR	First Semester	ChemE 104	Chemical Engineering Practice II	*must have completed 38 units of required courses*	1
		ChemE 106	Mathematical Methods in Chemical Engineering II	ChemE 105; *coreq Math 23*	3
		ChemE 122	Chemical Engineering Thermodynamics I	ChemE 102 & ChemE 105; *coreq Math 23*	3
		Chem 28	Fundamentals of Analytical Chemistry	Chem 17 & Chem 17.1 or equivalent; *coreq Chem 28.1*	3
		Chem 28.1	Fundamentals of Analytical Chemistry Laboratory	to be taken with Chem 28	2
		ES 101	Mechanics of Particles and Rigid Bodies	Math 22	4
		Math 23	Elementary Analysis III	Math 22	4
		PE	Physical Education	none	(2)
		NSTP[2]	National Service Training Program	none	(3)
					20
	Second Semester	ChemE 123	Chemical Engineering Thermodynamics II	ChemE 106 & ChemE 122	3
		ChemE 130	Process Fluid Systems	Chem 106 & Math 23	3
		ChemE 131	Thermal Systems	ChemE 106; *coreq ChemE 130*	3
		Chem 31	Elementary Organic Chemistry	Chem 16 & Chem 16.1 or equivalent; *coreq Chem 31.1*	3
		Chem 31.1	Elementary Organic Chemistry Laboratory	to be taken with Chem 31	2
		Kas 1	Kasaysayan ng Pilipinas	none	3
		Philo 1	Philosophical Analysis	none	3
		PE	Physical Education	none	(2)
		NSTP	National Service Training Program	none	(3)
					20
THIRD YEAR	First Semester	ChemE 128	Chemical Reaction Engineering	Chem 31, ChemE 123 & Chem 131; *coreq ChemE 132*	4
		ChemE 132	Separation Processes I	ChemE 123 & ChemE 130	4
		ChemE 134	Particle Technology	ChemE 130	3
		ChemE 135	Process Engineering Laboratory	ChemE 123, ChemE 130, ChemE 131 & Chem 28.1	2
		ES 102	Mechanics of Deformable Bodies	ES 101	3
		FIL 40	Wika, Kultura at Lipunan	none	3
					19
	Second Semester	ChemE 133	Separation Processes II	ChemE 131 & ChemE 132	3
		ChemE 143	Chemical Engineering Research I	ChemE 135	2
		ChemE 145	Chemical Plant and Process Economics	ChemE 128, ChemE 132 & ChemE 134	2
		ChemE 170	Introduction to Bioprocess Engineering	ChemE 128 & ChemE 132	3
		ARTS 1	Critical Perspectives in the Arts	none	3
		Soc Sci 1 / Soc Sci 2	Foundation of Behavioral Sciences / Social, Economic or Political Thought	none	3
		STS 1 / DRMAPS	Science, Technology & Society / Disaster Risk Mitigation, Adaptation and Preparedness Strategies	none	3
					19
FOURTH YEAR	First Semester	ChemE 144	Chemical Engineering Research II	ChemE 143	2
		ChemE 146	Chemical Process Development and Simulation	ChemE 145	3
		ChemE 151	Introduction to Health, Safety, and Environment	ChemE 128 & ChemE 134	3
		ChemE 182	Chemical Process Dynamics and Control	ChemE 128	3
		Track Elective[3]	Track Elective	*(depends on the elective)*	3
		GE (Free Choice)	(any general education course)	none	3
					17
	Second Semester	ChemE 136	Chemical Engineering Thermodynamics Laboratory	ChemE 133, ChemE 134, ChemE 170 & ChemE 182	2
		ChemE 147	Chemical Engineering Plant Design	ChemE 146 & ChemE 151	3
		ChemE 191	Chemical Process Industries	ChemE 145	2
		S&T Elective[4]	Science and Technology Elective	*(depends on the elective)*	3
		B&M Elective[5]	Business and Management Elective	*(depends on the elective)*	3
		PI 100	Life and Works of Rizal	none	3
		GE (Free Choice)	(any general education course)	none	3
					19
		Total No. of Units			**153**

[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] Research-related courses as recommended by the research adviser and approved by the Department. ChE 197 and ChE 198 must have research-based topics as recommended by the research adviser and approved by the Department.

[4] ChE 197 (Special Topic), ChE 198 (Special Problem), or any science/technology course offered by other units as recommended by the program adviser and approved by the Department, including another Track Elective.

[5] Any business or management course as recommended by the program adviser and approved by the Department.