Chang Gung University Courses for Ph.D. Program in CME Department (107 Academic Year Calendar)

Fall semester: August 2018~January 2019

	Course Code	E / C	SUBJECT	Crt.	Grade	1Semes.	2Semes.		Course Code	E / C	SUBJECT	Crt.	Grade	1Semes.	2Semes.
Compulsory Courses	CED627	C	Seminar	4	1,2	1	1	Professional Elective Courses	CEM180	E	Principles and Applications of Adsorption Process	3	1	3	
	CED001 CED002	C	English Technical Writing (1)(2)	2	1	1	1		CEM161	E	Enzymes and Cell Immobilization	3	1	3	
									CEM131	E	Polymer Structure and Physical Properties	3	1	3	
									CEM201	E	Instrumental Analysis Special Topics	3	1	3	
									CEM101	E	Air Pollution Control Theory and Design	3	1	3	
Core Elective Courses	CEM030	E	Advanced Reaction Engineering	3	1	3			CEM350	E	Particulate Engineering	3	1	3	
	CEM052	E	Advanced Transport Phenomena(1)	3	1	3			CEM153	E	Membrane Technology	3	1	3	
	CEM120	E	Advanced Organic Materials	3	1		3		CEM080	E	Opto-Polymers & Their Application	3	1	3	
	CEM060	E	Advanced Transport Phenomena(2)	3	1		3		CEM740	E	Special Topics in Advanced Electrochemistry	3	1	3	
	CEM220	E	Advanced Process Engineering	3	1		3		CEM750	E	Research Methodology	3	1	3	
	CEM123	E	Advanced Inorganic Materials	3	1	3			CEM760	E	R&D and Patents Practice	3	1		3
	CEM270	E	Advanced Thermodynamics	3	1		3		CEM091	E	Solid State Chemistry	3	1		3
	BEM121	E	Biochemical Engineering	3	1		3		CEM034	E	Statistics and Analysis for Engineers	3	1	3	
	BEM122	E	Biomedical Engineering	3	1		3		CED005	E	Applied Industrial Microbiology	3	1	3	
									CED007	E	Tissue Engineering	3	1	3	
									CEM016	E	Theory and Design of Wastewater Treatment	3	1		3
									CEM540	E	Bioreactor	3	1		3
									CEM452	E	Polymer Blends	3	1		3
									CEM21Y	E	Design of Experiments	3	1		3
									CEM454	E	Thin Film Processing	3	1		3
									CEM256	E	Battery and Energy Conversion	3	1		3
									CEM520	E	Functional Polymers	3	1		3
									CEM017	E	Advanced Separation Process	3	1		3
									CEM530	E	Bioseparation Processes	3	1		3
									CEM032	E	Cell Therapy and Regenerative Medicine	3	1		3
										E	Clinical Applications of Biomedical Engineering and Materials	3	1	3	

Remarks

1 At least 30 credit hours are required to receive Ph.D. degree : 12 credit hours from the required courses (including 6 credit hours of Thesis) and 9 credit hours of core elective courses.

2 Max.of 6 credit hours outside of CME Department and Biomed Graduate Institutes are counted for graduation requirement.

3 Students have to take least 3 courses from 9 core elective courses.

4 Ph.D. students must take the compulsory Seminar course in the first year and second year (total 4 credit hours).

5 All graduate students must pass/meet the English proficiency test/requirement as outlined in "English Proficiency Assessment for Foreign Students, College of Engineering, Chang Gung University".

6 International students may take elective courses in English and provided by the departments /graduate institutes of CGU toward graduation requirement or graduation requirement of core elective courses , within the caps of 12 credit hours for M.S. students and 9 credit hours for Ph.D. students. These courses are subject to review by advisor and graduate student affairs committee. This applies to the international students admitted through the international student admission

7 E:Elective / C:Compulsory

所長簽章：_____ 2019/12/13