

National Yunlin University of Science and Technology
Department of Chemical and Materials Engineering
Course Plan Flow Chart for Graduate study

(Lecture-Lab-Credits)

Academic Year I		Academic Year II	
1 st Semester	2 nd Semester	1 st Semester	2 nd Semester
Obligatory Coruses (Total 9 credits)			
Seminar (一) 2-0-1	Seminar (二) 2-0-1	Seminar (三) 2-0-1	
		Thesis (一) 3-0-3	Thesis (二) 3-0-3
Elective Courses (Minimal 25 credits required)			
Advanced Transport Phenomena 3-0-3	Advanced chemical engineering kinetics 3-0-3		Seminar (四) 2-0-1
Advance Thermodynamics Chemical Engineering 3-0-3	Special Topics on Safety Design of Chemical Process 3-0-3		
Advanced Polymer Chemistry 3-0-3	Polymer Characterization 3-0-3	Macromolecular Rheology 3-0-3	Characteristics And Analysis Of Microstructures Of matenols 3-0-3
Special topics on organic synilesis 3-0-3	Special topic on surface Chemistry 3-0-3	Special topic on rubber materials 3-0-3	
Advanced polymer science 3-0-3	Special topic on functional polymer 3-0-3	Reaction engineering for polymerization 3-0-3	
Special Topics on Composite Materials 3-0-3	Special topic on electrode material 3-0-3	Special topic on chemical sensor 3-0-3	
Special topic irrorganic materials 3-0-3	Nanostructured Materials Chemistry 3-0-3		
Multimedia Transport Of hazardous Waste 3-0-3			
Corrosion prevention engineering 3-0-3	Fire proof Explosion proof materials 3-0-3		
	Hazard Evaluation for Chemical Process Industries 3-0-3		
Special Topics of Adsorptive Separation 3-0-3	Special topic on mass transfer 3-0-3	Heterogeneous Catalysts 3-0-3	Fluidized engineering 3-0-3
Advanced Numerical Analysis 3-0-3	Applied Experimental Design and Analysis 3-0-3	Non-linear process control 3-0-3	
	Advanced Process Control 3-0-3		
Special Topics on Biochemical Engineering 3-0-3	Food Chemistry 3-0-3	Biochemical Separation Processes 3-0-3	Biochemical Reaction Engineering 3-0-3
	Special topic on biolchemistry 3-0-3		
Enzyme Engineering 3-0-3	Recombinant DNA technology 3-0-3		

Minimal requirement for graduate is 34 credits (including 6 credits from thesis and 4 credits from seminar)

Minimal 2 courses among [Advanced Transport Phenomena](#), [Advanced chemical engineering kinetics](#), [Advance Thermodynamics Chemical Engineering](#), and [Special Topics on Safety Design of Chemical Process](#) should be elected to fulfill the requirement of graduate study.