

National Kaohsiung University of Applied Sciences 2014 Academic Year Chemical Engineering and Materials Engineering two-year curriculum

Academic year	First Year		Second Year	
Semester	First Semester	Second Semester	Third Semester	Fourth Semester
School Required Subject (8/16)	Chinese Practical Writings2/2 Physical education (1)0/2 Service learning (1)0/2	Physical education (2)0/2 Advanced Practical English2/2 Service learning (2)0/2	Core curriculum (5)- democracy & rule of law2/2 General course2/2	
subtotal	2/6	2/6	4/4	0/0
Department of Professional compulsory subjects (34/46)	Transport phenomena and unit operation (1)3/3 Engineering mathematics3/3 Thermodynamics of materials3/3 Introduction to Materials Science3/3 Chemical technology practice1/3	Transport phenomena and unit operation (2)3/3 Kinetics of chemical reaction engineering3/3 Chemical engineering thermodynamics3/3 Practical project (1)1/3 Off-Campus Practicum 2	Process control3/3 Special topics (1)0/2 Special topics (2)1/3 Chemical process design3/3 Chemical material experiments1/3	Chemical engineering lab.1/3 Special topics (2)0/2
subtotal	13/15	12/12	8/14	1/5
Dep. of Prof. Electives subjects (30)	Electrochemistry2/2 Electrical engineering2/2 Synthesis of Organic Chemistry2/2 Analytical chemistry2/2 Polymer chemistry3/3 Polymer physics3/3 Biochemistry2/2 Introduction to biotechnology2/2 Inorganic Optoelectronic Materials2/2 Special Topics on Nano-microscopic Technology2/2 Solid state physics2/2 Atomic energy and the environment3/3 Introduction to Environmental Science2/2 Special topics of organic chemistry2/2 Industrial safety and hygiene2/2 Environmental Chemistry2/2 Introduction of Environmental Engineering2/2 Nanotechnology for environmental engineering2/2 Analysis of Organic Chemistry2/2 Inorganic chemistry2/2 General printed circuit board technology2/2 Process Automatic Instruments2/2 Introduction to photo-electric engineering2/2 Materials for photo-electric applications2/2 Introduction to solar cell devices2/2 Plant Management2/2		Computer Aided Design and Practice 1/2 Off-campus practicum (1) 9 Off-campus practicum (2) 9 Introduction to Biochemical Engineering2/2 Polymer nanocomposite2/2 Fabrication of ceramic film2/2 System Engineering2/2 Principles of electrochemical sensors and biosensors2/2 Special Topics on Organic Optoelectronic Materials2/2 Processing and applications of polymeric materials3/3 Nano-materials2/2 Optoelectrical polymeric materials 2/2 Environment Examination2/2 Overview of nuclear engineering and energy technology3/3 Interface sciences2/2 Sequential Control2/2 Fundamental and Technology of Electrochemical Deposition2/2 Wastewater treatment2/2 Solid Waste Treatment2/2 Air pollution control2/2 Principles of plasma2/2 Cosmetic chemistry2/2 Semiconductor Materials 2/2 Metallic Materials and Surface Treatment2/2 Fuel Cells2/2 Thin film material and coating2/2 Introduction to green energy technology2/2 Surface treatment of materials 2/2	

*When the number of credits in each subject "credit / hour" mark.