National Kaohsiung University of Applied Sciences
Division of Continuing and Extension Education
Mechanical Engineering Department, College of Engineering
Curriculum of Four-Year Program

Passed at Department Curriculum Committee Meeting on 16 03, 22
Passed at Department Affairs Meeting on 14 02, 17
Passed at College Curriculum Committee Meeting on 16 03, 30
Passed at University Curriculum Committee Meeting on 14 04, 25
Passed at Academic Affairs Meeting on 14 05, 21

Year	1st academic year		2nd academic year		3rd academic year		4th academic year	
Semester	Semester 1	Semester 1	Semester 1	Semester 2	Semester 1	Semester 2	Semester 1	Semester 2
University required common courses (20/30)	Physical education (1) 0/2 Chinese (1) 2/2 Practical English 2/2	Physical education (2) 0/2 Chinese (2) 2/2 Advanced Practical English 2/2	Physical education (3) 0/2 English Listening and Speaking Training(1)1/2 Core curriculm (5) 2/2	Physical education (4) 0/2 English Listening and Speaking Training (2)1/2	Core curriculm (1)2/2	Core curriculm (2)2/2	Core curriculm (3)2/2	Core curriculm (4)2/2
Total	4/6	4/6	3/6	1/4	2/2	2/2	2/2	2/2
College required common courses (6/6)	Physics(1) 3/3 Calculus (1) 3/3							
Total	6/6							
Department required professional courses (66/81)	Physics lab (1) 1/3 Computer Programming 2/3	Physics(2) 3/3 Physics lab (2) 1/3 Calculus (2) 3/3 Engineering Mchanics-Statics 3/3 Chemistry 3/3	Computer aided mechanical drawing 2/3 Dynamics 3/3 Precision manufacturing 3/3 Engineering materials 3/3	Engineering mathematics (1) 3/3 Thermodynamics 3/3 Mechanics of materials 3/3 Electromechanics 3/3	Engineering mathematics (2) 3/3 Fluid mechanics 3/3 Mechanisms 3/3 Materials Testing 1/3 Electrical Experiment. 1/3	Mechanical design 3/3 Heat transfer 3/3 Automatic control Systems 3/3	Applied electronics3/3 Computer numerical control and practice 2/3 Thermofluid experiment 1/3	Electronic circuit practice 1/3
Total	3/6	13/15	11/12	12/12	11/15	9/9	6/9	1/3
Department elective professional courses	Introduction of mechanical engineering 2/2	Engineering Graphics 2/3	Introduction to micro-system 3/3 Cutting principle 3/3 Casting 3/3 Hydraulic Engineering 3/3	Computer Aided Solid Geometric Design 3/3 Machine tools 3/3 Object-oriented programming 3/3 Pneumatic Engineering 3/3	Metal Forming 3/3 The Industrial Japanese 3/3 Industrial Safety and Sanitation 3/3 Applied Mechanics of Materials 3/3 Applied thermodynamics 3/3	Practical project (1) 1/3 Computer aided manufacture 3/3 Dynamics of Machines 3/3 Manufacturing process analysis and design 3/3 Numerical analysis 3/3 Heat Engines 3/3	Practical project(2)1/3 Ergonomics / human factors 3/3 Application of mechanical design 3/3 Creative Mechanism Design 3/3 Manufacturing processes and	Reverse Engineering3/3 Finite Element Analysis 3/3 Die & mold design 3/3 Patent analysis 3/3 Surface Treatment 3/3 Image Processing and Measurement 3/3 Operations

					Composite materials3/3	Fluid dynamics 3/3 Computer Aided Mechanism Design 3/3 Steel Sculpture Art 3/3 Optoelectronic engineering 3/3 Advanced computer aided mechanical drawing 3/3	equipments of semiconductor 3/3 Non-traditional machining processes 3/3 Mechanical Design & Drawing 3/3 Vibrations 3/3 Internal Combustion Engine 3/3 Taguchi quality design 3/3 Optimum Design 3/3 Laser Machining 3/3 Laser Machining 3/3 Professional ethics 1/1	Management 3/3 Automobile 3/3 Computer-Integrated Manufacturing 3/3 Factory management3/3 Plastics injection molding 3/3 Pprinciples and Applications of Microprocessor 3/3 Mechanical creativity application 3/3 Metal Forming Process and Die Engineering 3/3 Laser Machining 3/3 Powder metallurgy 3/3

Remarks:

1. This curriculum is applied to students admitted in Academic Year 2018
2. Credit hours of each course (or total) are marked with “credit/hour.”
3. The minimal credit number for graduation is 135, including 20 credits of university required common courses, 6 credits of college required common courses, 66 credits of department required professional courses, at least 43 credits of department elective professional courses. (Students may have a maximum of 12 credits from courses offered by other departments or not offered by Center of General Education.)
4. Courses of inter-disciplinary programs offered by other departments may be regarded as elective professional courses of the department.
5. For General Education, students are required to take 2 credits/hours in the categories of “Humanities and Art,””Nature & Technology,””Society & Management”respectively and acquire 6 credits/hours in total. The courses do not have to be taken in sequence and can be exempted with General Education Core IV or V of four-year daytime programs.
6. General Education Core IV (category of history) and General Education Core V (category of law) may be exempted with General Education Core IV and V of four-year daytime programs respectively or with relevant courses in the category of history and law offered in Division of Continuing and Extension Education.
7. Physical Education I to Physical Education IV are required courses. The credits are not counted to meet graduation requirements, but students who fail in the courses will not be allowed to graduate.
8. Elective Military Education course credits are not counted to meet graduation requirements.
9. Elective courses: the courses listed in the table are planned courses, which will be offered based on practical needs.
10. For other instruction on course selection, students must follow “Division of Continuing and Extension Education Course Selection Guidelines.”