

National Pingtung University of Science and Technology
Graduate School of Mechanical Engineering Course Plan (2017)

Academic Year	1st Academic Year						2nd Academic Year						Credits Total
Semester	1st semester			2nd semester			1st semester			2nd semester			
Course Type	Course	Code	Credits/Hours	Course	Code	Credits/Hours	Course	Code	Credits/Hours	Course	Code	Credits/Hours	
Required Courses	Seminar Engineering Statistics	30039 20038	1/2 2/2	Seminar	30039	1/2	Seminar Thesis	30039 30057	1/2 3/3	Seminar Thesis	30039 30057	1/2 3/3	
Sub-Total			3/4			1/2			4/5			4/5	12
Elective Courses	Physical Metallurgy	40402	3/3	Semiconductor Manufacturing Technology	40098	2/2							
	Computer Aided Mechanical	55071	3/3	Microchip Fabrication Lab.	40099	1/2							
	Structural Analysis			Chip Integrated Design	40318	2/2							
	Theory and Application of	55104	3/3	Chip Integrated Design Lab.	40319	1/2							
	Precision Manufacturing			Artificial Intelligence	20003	3/3							
	Semiconductor Optoelectronic	40207	3/3	Powder Technology	40581	3/3							
	Material and Technology			Phase Transformation	40487	3/3							
	Structural Vibration	40879	3/3	Turbulent Flow	40582	3/3							
	Viscous Fluid	41062	3/3	Experimental Modal Analysis	55092	3/3							
	Analytical Techniques for Material	20342	3/3	Theory and Analysis of Failure	40579	3/3							
	Advanced Engineering	40609	3/3	Computer Aided Heat/Flow System Analysis	55070	3/3							
	Mathematics	40307	3/3	Signal Processing	40588	3/3							
	Materials Science	55128	3/3	Alloy Design	40213	3/3							
	Theory of Elasticity	41017	3/3	Semiconductor Physics and Devices	40097	3/3							
	Robot Dynamics	40308	3/3	Multilayer Ceramic Devices	41020	3/3							
	Materials Thermodynamics	20343	3/3	Mechanics of Composite Materials	40994	3/3							
	Mechanical Behaviors of Materials	40599	3/3	Electronic Packaging Technology for	55062	3/3							
	Polymer Science and Engineering	20257	3/3	Electronics									
	Physics of Semiconductor Devices	40722	3/3	The Design and Trend of Original Solar Cell	40458	3/3							
	Control System Theory	30256	3/3	Digital Control System Design	55131	3/3							
	Theory and Application of			Machine Vision Applications Technology	41018	3/3							
	Precision Transmission	40492	3/3	Optical Devices and System Image	40208	3/3							
	Technical English Reading	40661	3/3	Processing									
	Advanced Numerical Analysis	30136	3/3	Technical English Writing	40491	3/3							
	Fluid Machinery Design	30314	3/3	Quality Engineering	20463	3/3							
	Computer-aided Mold Flow analyses			The Techniques of Automatic	40262	3/3							
				Basic Vietnamese	30134	2/2							
				Programming Design	21255	3/3							
				Microscopic Mechanics	40908	3/3							
				Physical Vapor Deposition Technique	20422	3/3							
Sub-Total			63/63			77/79							140

Note: All students have to acquire at least 36 credit points, including 12 credit points for required courses and at least 24 credit points for elective courses, before graduation.