

Courses	Outline	Credits	Hours
Electric Circuits Practice	1.Introduction of Electronic Instruments 2.Testing of Passive Component Characteristics 3.Testing of Diode Characteristics 4. Rectifier, Filter and Regulator Circuits 5. Clipper and Clamper Circuits 6. Testing of Bipolar Junction Transistor(BJT) Ic-Vbe Characteristics 7. Testing of BJT Amplifier Bias Circuit 8. Common-Emitter, Common-Collector and Common-Base Amplifier of BJT 9. Multistage Transistor Amplifier	2	4
Introduction of Safety and Hygiene	1.Environmental Hygiene and Safety 2.Global Environmental Change 3.Occupational Hygiene and Safety 4.Personal Hygiene and Hazard 5.Protective Equipment and Emergency Response	3	3
Elementary Mandarin Conversation	1.Chinese pinyin 2. Self introduction 3. Say hello 4. Meet new people 5. My family 6. Buying things 7. Recreation 8. Taiwanese culture	2	2
Computer - Aided Manufacturing Practice	1.cnc concept 2.coordinate definition and type 3.Tool classification 4.nx interface 5.nx experience 6.preparation 7.mill contour 8.cutter pattern	2	4
Technology English	This course gives students the language they need for real life, hands-on tasks like describing a problem, giving instructions, discussing logistics, or explaining procedures. From maintenance to customer service, and from manufacturing to technical support, the focus is always on getting the job done.	3	3

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Electric Circuits	1. Electric Circuit Concepts 2. DC Network Analysis 3. AC Network Analysis 4. Semiconductor & Diode 5. Diode Application 6. BJT characteristic Analysis 7. BJT Logical Circuit Analysis 8. FET Characteristic Analysis	3	3
Engineering Mathematics	1.Introduction to Different Equation (a) Definition and Terminology (b) Initial-Value Problem (c) Differential equipment as mathematical Models 2.First-Order Differential Equations (a) Separable Variables (b) Linear equation(integral factor) (c) Exact equation (d) Solution by substitutions (e) Linear Models 3.High-Order Differential Equations (a) Linear equation (b) Reduction of order (c) Homogenous equation with constant coefficient (d) Undetermined coefficient (e) Variation of parameters (f) Cuachy-Euler equation (g) Linear models- with initial value problem (h) Linear models- with boundary value problem 4.The Laplace Transform (a) Definition (b) The inverse transform (c) ranslation Theorems (d) Additional operational properties (e) Dirac Delta function 5.Vectors (a) Vector in 2-D space (b) Vector in 3-D space (c) The Dot product	3	3

	(d) The Cross product (e) Vector Space		
Computer Graphics and Practice	1. OrCAD Pspice and Capture 2. Basic analysis of PSpice 3. Basic analysis of semiconductor (diode, BJT, CMOS) 4. Advanced analysis of PSpice 5. Analysis of system level 6. Digital circuit simulation and component modification 7. Optimal circuit design	2	4