

Required Courses of Department of Electrical Engineering Applicable to Students Enrolled in School Year 2021

Subject Category	Course Name	1st Year		2nd Year		3rd Year		4th Year		
		Semester								
		1	2	3	4	5	6	7	8	
General Education Course	Language Literacy	Critical thinking and expression in Chinese	2	2						
		General English	2	2						
		English Proficiency Standard	0							
	Inter-college Electives	Inter-college Electives <i>*Choose in 1st and 2nd Year.</i>	2	2	2					
	Liberal Arts Courses	Liberal Arts Courses <i>*Choose in 2nd Year and above.</i>				13				
	Practical Experience courses	Primer on College Life: A Lecture Series <i>*Take six sessions of lectures approved by Si Wan College before 3rd year.</i>	0							
		Service Learning <i>*Available only for 2nd Year and above.</i>			1					
Sport & Health courses	Sport & Health courses	1	1	1	1					
	Calculus (I)	3								
	Calculus (II)		3							
	General Physics (I)	3								
	General Physics (II)		3							
	Introduction to Computers	3								
	Design of Digital Systems	3								
	Computer Programming	3								
	Linear Algebra		3							
	Differential Equations		3							
	Circuit Theory (I)		3							

Department
of Electrical
Engineering
Course

Required
Courses

Course Name	1st Year		2nd Year		3rd Year		4th Year	
	Semester							
	1	2	3	4	5	6	7	8
Signals and Systems			3					
Electronics (I)			3					
Electrical Engineering Lab. (I)			1					
Circuit Theory (II)			3					
Electromagnetic Theory (I)			3					
Electronics (II)				3				
Electrical Engineering Lab. (II)				1				
Electrical Machines				3				
Electromagnetic Theory (II)				3				
Electrical Engineering Lab. (III)					1			
Control Systems					3			
Communication Systems					3			
Electrical Engineering Lab. (IV)						1		
Electrical Engineering Lab. (V)							1	
[A]: One of the following subjects must be taken								
Complex Variables					3			
Probability Theory				3				
Discrete Mathematics						3		
[B]: One of the following subjects must be taken								
Independent Studies in Electronic Practice						2		
Independent Studies in Control Practice						2		
Independent Studies in Computer Practice						2		
Independent Studies in Electric Power Practice						2		

Required
Courses - Core
Elective
Courses

Course Name	1st Year		2nd Year		3rd Year		4th Year	
	Semester							
	1	2	3	4	5	6	7	8
Independent Studies in Wave and Optics Practice						2		
Independent Studies In Communication Practice						2		
Independent Studies in System-on-Chip Design						2		

Minium graduation credits	132	<p>1. <u>General Education Course: 28 credits</u> (Sport & Health courses 4 credits are required but are not included in the minimum graduation credits.)</p> <p>2. <u>Department of Eletrical Engineering - Required Courses: 67 credits</u></p> <p>3. <u>Department of Eletrical Engineering - Elective Courses: at least 24 credits</u></p> <p>4. <u>Other elective course: at least 13 credits.</u> Students can choose any courses they are interested in.</p> <p>5. Core Elective Courses [B]:</p> <p>(1) Students of 2 to 3 form a group studying under a professor. The students usually have regular meeting with their supervisor.</p> <p>(2) Depending on the topics of their projects, the students may have either hardware or software oriented tasks to complete in one semester. A project report is required to complete the course.</p> <p>6. Should meet at least one of the following "<u>International or Interdisciplinary Studies</u>" graduation requirements.</p> <p>(1) International Study: At least one semester of exchange (or training abroad) or completion of at least 2 credits of the foreign study program (or foreign study program at least 36 hours of study) approved by EE department.</p> <p>(2) Interdisciplinary Study: A minor, double major, or education program from NSYSU or another university, or a microprogram offered by NSYSU (The program or faculty must be an inter-institutional collaboration), Integrated or Interdepartmental professional programs.</p>
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