

Required Courses of Department of Electrical Engineering Applicable to Students Enrolled in School Year 2023

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 <i>*Choose (I) or (II) in 1st Year and above.</i>	3							
		General English <i>*Choose in 1st Year and above.</i>	3							
		English Proficiency Standard	0							
	Inter-college Electives	Inter-college Electives <i>*Choose in 1st Year and above. *Three credits must take EAP/ESP course.</i>	8							
	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 Eletrical
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			
Required Courses - Core Elective Courses	[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		
	Independent Studies in Wave and Optics Practice						2		
	Independent Studies In Communication Practice						2		

Course Name	1st Year		2nd Year		3rd Year		4th Year	
	Semester							
	1	2	3	4	5	6	7	8
Independent Studies in System-on-Chip Design						2		
Independent Studies in Biomedical Signal Processing & Instrumentation						2		

Minium graduation credits

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1. General Education Course: 28 credits (Sport & Health courses 4 credits are required but are not included in the minimum graduation credits.)
2. Department of Eletrical Engineering - Required Courses: 65 credits
3. Department of Eletrical Engineering - Elective Courses: at least 26 credits (including EE elective lab course, at least 2 credits)
4. Other elective course: at least 13 credits. Students can choose any courses they are interested in.
5. Core Elective Courses [B]:
 - (1) Students of 2 to 3 form a group studying under a professor. The students usually have regular meeting with their supervisor.
 - (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.
6. Should meet at least one of the following "International or Interdisciplinary Studies" graduation requirements.
 - (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.
 - (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.