

## Required Courses of Department of Electrical Engineering Applicable to Students Enrolled in School Year 2024

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	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**

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				
Probability Theory				3				
Control Systems					3			
Communication Systems					3			
Electrical Engineering Lab. (III)					1			
<b>[A]: One of the following subjects must be taken</b>								
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		
Independent Studies in System-on-Chip Design						2		
Independent Studies in Biomedical Signal Processing & Instrumentation						2		

**Required  
Courses - Core  
Elective  
Courses**

Minium  
graduation  
credits

132

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 [A]:
  - (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.