清華學院國際學士班乙組電機資訊科技全英語學程
110 學年度入學學生必修科目、學分數暨畢業總學分表

類別 Type	科 目 名 稱 Courses		學分數Credits 上學期 1ˢᵗSem	學分數Credits 下學期 2ⁿᵈSem	備　　註 Remarks
校定必修（30學分）Compulsory（30 Credits）	大學中文 College Chinese		2		修讀華語課程得免修大學中文，請參考國立清華大學外國學生修讀華語課程實施要點 。Students who complete Mandarin courses are exempt from taking the "College Chinese" required course. Please refer to the Mandarin Course Requirements for NTHU International Students.
	英文 English		8		英文能力檢定通過者，得依學校規定申請免修或減修，請參照語文中心網頁。Students who pass the official English Proficiency tests could waive credits. Please refer to the website of NTHU Center of Language Education.
	通識課程 General Education Course	核心通識 Core General	8-12		至少修畢四門核心通識課程，並須含括四個核心向度。因應外籍生需要，可由本系自開部分課程抵免。Students are required to register four Core courses from at least four different dimensions. Foreign students could choose to take courses given by this department.
		選修科目 Elective Course	8-12		自由選修，可由本系自開部分課程抵免。Free electives. Students could also take courses given by this department.
		合　　計 Total	20		
	體育 Physical Education		0		1 至 3 年級必修 A required course for freshmen to juniors
	服務學習 Student Service		0		畢業前必修 60 小時 60 hours required before graduation
	操行 Conduct				每學期成績及格 Will be graded each term
基礎課程（任選24學分）Basic Core Course（24Credits）	微積分(一) Calculus (I)	微積分(二) Calculus (II)	3	3	
	普通物理(一) General Physics (I)	普通物理(二) General Physics(I I)	3	3	偏重資訊專長同學得免修 Students with computer science specialty can waive these courses
	計算機程式設計 Introduction to Programming		3		
	邏輯設計 Logic Design		3		
	離散數學 Discrete Mathematics		3		
	常微分方程 Ordinary Differential Equations		3		
	線性代數 Linear Algebra		3		
	機率 Probability		3		
	訊號與系統 Signals and Systems		3		
	實作專題一 Special Topic on Implementation (I)		1		三年級下學期（與導師共同商訂）2ⁿᵈ semester in the third year (Discuss with mentor)
	實作專題二 Special Topic on Implementation (II)		1		四年級上學期（與導師共同商訂）1ˢᵗ semester in the fourth year (Discuss with mentor)

類別 Type	科目名稱 Courses	學分數Credits		備 註 Remarks
		上學期 1st Sem	下學期 2nd Sem	
核心選修 （任選 15 學分） Core Course （15 Credits）	電子學 Electronics	3		
	電路學 Electric Circuits	3		
	電磁學 Electromagnetism	3		
	資料結構 Data Structures	3		
	計算機結構 Computer Architecture	3		
	計算機網路概論 Introduction to Computer Networks	3		
	作業系統 Operating Systems	3		
	計算方法設計 Design and Analysis of Algorithms	3		
專業選修 （33學分） Core Elective Course （33 Credits）	進階課程與導師共同商訂 Students will discuss with their mentors before taking advanced courses	27		電機資訊學院專業課程均可 與導師共同商訂之『非電機資訊』課程亦可 Students can choose courses given by the College of Electrical Engineering and Computer Science or can take other courses after discussing with their mentors
	實驗與導師共同商訂 Students will discuss with their mentors before taking advanced courses	6		任選下列三門實驗課程 Students can choose three lab courses from the following： 邏輯設計實驗(硬體設計與實驗) Logic Design、軟體設計與實驗 Software、電子電路實驗 Microelectronics、數位訊號處理實驗 Digital Signal Processing、 通訊系統實驗 Communication System, Electromechanical、電動機械實驗 Electrical Machinery、光電實驗 Optics and Photonics、固態電子實驗 Solid-state Electronics、積體電路設計實驗 Integrated Circuit Design、 嵌入式系統與實驗 Embedded Systems、普通物理實驗一, General Physics (I) (與導師共同商訂之『非電機資訊』實驗課程或暑期實習亦可。 Students can also take other lab courses or summer internships after discussing with their mentors.)
自由選修 (26 學分) Free Elective Course （26 Credits）		26		與導師共同商訂 Students will discuss with their mentors
最低畢業總學分 Minimum Credits Needed for Graduation		128		
備註	1. 中五學制學生畢業總學分應另增加 12 學分，詳細內容請洽詢國際班辦公室。			