Department of Computer Science (NME Program)

2016/2017 Academic Year (AY) **(May 2016 Revision)**

Course Title	Required Credits	AY1		AY2		AY3		AY4		Remarks
		Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	
物理(一)(二) Physics (I)(II)	6	3	3							Pick 1 out of 3 (Note 1)
普通生物(一)(二) General Biology (I)(II)										
化學(一)(二) Chemistry (I)(II)										
微積分(一)(二) Calculus(I)(II)	8	4	4							
線性代數 Linear Algebra	3	3								
計算機概論與程式設計 Intro. to Computers and Programming	3	3								
資料結構與物件導向程式設計 Data Structures and Object-oriented Programming	3		3							
離散數學 Discrete Mathematics	3		3							
數位電路設計 Digital Circuit Design	3		3							
機率 Probability	3			3						
演算法概論 Intro. to Algorithms	3			3						
作業系統概論 Intro. to Operating Systems	3					3				
正規語言概論 Intro. to Formal Language	3				3					
計算機組織 Computer Organization	3				3					
資訊工程專題(一)(二) Computer Science and Engineering Projects(I)(II)	4						2	2		
導師時間 Mentor's Hours	0	0	0							(Note 2)
服務學習(一) Service Learning I	0		0							
服務學習(二) Service Learning II	0			0						
資訊工程研討 Computer Science Seminars	0					0				
基礎程式設計 Basic Programming	0				0					Pass=Passing Basic Computer Programming Exam (Note 3)
計算機網路概論	3			3						Network Pick 1

Intro. to Computer Networks											track course (9 credits)	out of 2 track (Note 4)
網路程式設計概論 Intro. to Network Programming	3					3						
網路通訊原理 Principles of Network Communications	3				3							
計算機圖學概論 Intro. to Computer Graphics	3					3					Multimedia track course (9 credits)	
影像處理概論 Intro. to Image Processing	3						3					
數值方法 Numerical Methods	3				3							
Total	57											

Graduation requirements: 128 credits (English-medium courses: 8 credits).

Note 1: 57 credits (NME Program)＋31 credits (Elective Professional Courses)＋12 credits (Free Elective Courses)＝100 credits (at least).

Note 2: Elective Professional Courses: all elective courses offered by the Dept. of CS (including elective courses in both undergraduate and graduate program)

Note 3: Free Elective Courses：all elective courses offered by the Dept. of CS and other department (Not including the courses of center of general education, Service Learning, Physical Education, Military Training office, health services).

1. Important prerequisite on course selection:

(1) **Data Structures and Object-oriented Programming [Spring of AY 1]**

→Pass the aforementioned course before taking **Intro. to Algorithm [Fall of AY 2]**.

(2) **Basic Programming [Spring of AY 2]**

→Pass the aforementioned course before taking **Computer Science and Engineering Projects (I) [both Fall and Spring of AY 3]** and **Computer Science and Engineering Projects (II) [Spring of AY 3 and Fall of AY 4].**

→Pass the aforementioned course before taking **Intro. to Compiler Design [Fall of AY 3]**.

→Pass the aforementioned course before taking **Introduction to Embedded Systems Design and Implementation [Spring of AY 3]**.

→Pass the aforementioned course before taking **Intro. to Network Programming [Fall of AY 3]** and **Intro. to Computer Graphics [Fall of AY 3]**

(3) **Computer Science and Engineering Projects (I) [both Fall and Spring of AY 3]**

→ Pass the aforementioned course before taking **Computer Science and Engineering (II) [Spring of AY 3 and Fall of AY 4]**.

2. Students must complete one professional, English-medium course offered by the Department of CS.
（**Note: Projects or seminars are not included**）

Note 1: Students who complete “Physics (I) and (II)”, which are 8 credits in total, may waive 2 credits from Elective Professional Courses.

Note 2: All the undergraduate freshmen are required to take “Mentor Hour” every semester (0 credits) and pass two courses before graduation.

Note 3: To pass “Basic Programming”, students must pass the “Basic Computer Programming Exam”.

Note 4: Pick 1 out of 2 track (Network track and Multimedia track), and pass all courses of the track.