

# Curriculum Planning for NTU CSIE Students

## B.S. Program

### A. Core Required Courses: 51 credits

	Course Name	Credits		Course Name	Credits
1 <sup>st</sup> I	Calculus (1)(2)	4	1 <sup>st</sup> II	Calculus (3)(4)	4
	Introduction to Computer Programming	3		Data Structures and Algorithms	3
	General Physics/Chemistry/Biology no less than 6 credits, exceeded credits will be included in General Elective credits (If it is a full-year course, you must complete both the first and second courses to count towards the required credits; if it is one semester course, you only need to accumulate at least six credits.)				
2 <sup>nd</sup> I	Linear Algebra	3	2 <sup>nd</sup> II	Probability	3
	Systems Programming	3		Operating Systems	3
	Algorithm Design and Analysis	3			
	Service Education(a) <sup>1</sup>	0		Service Education(a) <sup>1</sup>	0
3 <sup>rd</sup> I	Formal Languages and Automata Theory	3	3 <sup>rd</sup> II	Foundations of Artificial Intelligence	3
	Computer Architecture	3		Computer Network Laboratory <sup>2</sup>	2
	Computer Networks	3		Computer System Laboratory <sup>2</sup>	2
				Special Project <sup>3</sup>	2
	Service Education(b) <sup>1</sup>	0		Service Education(b) <sup>1</sup>	0

1. Service Education(a)(b) required (0 credits). Students whose ID is odd/even number take during fall/spring semester respectively

2. Only one lab course is required (Computer System Lab and Computer Network Lab), exceeded credits will be included in Core Elective credits

3. Students can register for Special Project starting from Sophomore year, at least 2 credits are required, exceeded credits will be included in Core Elective credits

### B. Core Electives Courses: at least 30 credits

### C. Cross-departmental courses: 23 credits

### D. General Courses(共同科目): Chinese 6 credits, English/other language 6 credits

### E. Liberal Education Courses(通識課程): 12 credits

- F. Physical Education I II III IV required (1 credit each), 4 credits in total, but not included in total required credits for graduation**
- G. Total number of credits needed for graduation: 128**

## **M.S. Program**

### **A. Required courses**

1. M.S. Thesis: required during last semester.
2. Special Project: required for all but the first semester. Must complete at least two semesters of Special Project before graduating.
3. Seminar: must complete at least two semesters of Seminar before graduating.

**B. Must complete 24 credits** (not including M.S. Thesis, Special Project, or Seminar), at least 15 of which must be for courses offered by Information Sciences departments.

## **Ph.D. Program**

### **A. Required courses**

1. PhD Thesis.
2. Special Project: required every semester.
3. Seminar: must complete at least 4 semesters by graduation.

**B. CSIE courses:** at least 18 credits; those in the accelerated PhD program must complete at least 30 credits. This does not include PhD Thesis, Special Project, or Seminar.

**C. A “cross-department elective application”** must be submitted before registering to take courses offered by departments other than CSIE. After approval, these credits will apply to the PhD graduation credit requirements. Cross-department electives must be research-related and may not exceed 9 credits, or 15 credits for students in the accelerated PhD program.