

**Course Structure for M.A. Program**  
**Graduate Program in English, Department of Computer Science and Information Engineering**  
**National Taiwan Normal University**

Adaptive to Class of	Required Credit(s)	Elective Credit(s)	Free Elective Credit(s)	Minimum Total Credits for Graduation
111	0.0	9.0	18.0	27.0

Note: The first alphabet "E" on the course name refers to the course in English as a medium of instruction

**I. Required Courses: 0.0 credit is required**

**II. Elective Courses: 0.0 credit is required**

**III. Courses Offered to Students in Different Divisions**

Required Course, 0.0 credit is required

Elective Course: 9.0 credits are required

Course Code	Course Name	Credit(s)	Credit Unit		Note
			Lecture Hour	Lab/Practice Hour	
<b>1 Seminar</b> 3.0 credits are required, Graduate students can use an extra 3-credit EMI course offered by our department to apply for the seminar course exemption (Information Science (I, II), 3 credits in total) after the student has completed 24-credit EMI courses.					
CSC8002	1-1 E Seminar on Information Science (I)	1.0	0.0	2.0	This course can be retaken
CSC8003	1-2 E Seminar on Information Science (II)	1.0	0.0	2.0	This course can be retaken
<b>2 The Core Elective Courses</b> 6.0 credits are required					
CSC0056	2-1 E Data Communication	3.0	3.0	0.0	
CSC0036	2-2 E Advanced Computer Networks	3.0	3.0	0.0	
CSC0032	2-3 E Artificial Neural Network	3.0	3.0	0.0	
CSC9005	2-4 E Data Visualization	3.0	3.0	0.0	
<b>3 Free Electives</b>					
CSC0029	3-1 E Computer Vision	3.0	3.0	0.0	
CSC0010	3-2 E Wireless Communications	3.0	3.0	0.0	
CSC9008	3-3 E Cyber-Physical Systems	3.0	3.0	0.0	
CSC9006	3-4 E Real-Time Systems	3.0	3.0	0.0	

**IV. Free Elective Credits: 18.0 credits are required**

1.All EMI fields required courses of our department can be considered as EMI elective courses. 2.Students who take EMI courses from other departments or universities can apply for an exemption. 3.In addition to meeting all rules of our department and university, the approval from the student's advisor is required before taking courses from other departments of universities.