### Course Structure for M.A. Program

# Graduate Program in English, Graduate Institute of Science Education

## National Taiwan Normal University

Adaptive to Class	of Re	equired Credit(s)	Elective Credit(s)	Free Elective Credit(s)	Minimum Total Credits for Graduation	
111		4.0	18.0	6.0	28.0	

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, 4.0 credits are required

			Credit Unit			
	Course Code	Course Name	Credit(s)	Lecture Hour	Lab/Practice Hour	Note
	SEC8014	1 E Foundation of Science Education	2.0	2.0	0.0	
1	SEC8013	2 E Business Communication	2.0	2.0	0.0	

Elective Course: 18.0 credits are required

	Course Name		Credit Unit		
Course Code			Lecture Hour	Lab/Practice Hour	Note
	1 Science Education				
SEC8016	1-1 E Introduction to Science Education Research	3.0	3.0	0.0	
SEC0019	1-2 E Analysis of Science Instructional Activities	3.0	3.0	0.0	
SEC0065	1-3 E Philosophy of Science in Practice and Science Education	3.0	3.0	0.0	
SEC0086	1-4 E Topics on the Development and Process of Scientific Reasoning	3.0	3.0	0.0	
	2 Research Methods				
SEC8012	2-1 E Academic Writing in Science Education	3.0	3.0	0.0	
SEC8015	2-2 E Elementary Statistics	3.0	3.0	0.0	

#### IV. Free Elective Credits: 6.0 credits are required

There are 6 credits of free electives, which are science subjects, and EMI science subjects are selected by all departments of the College of Science.