

**Course Structure for M.A. Program**  
**GPE, Department of Earth Sciences**  
**National Taiwan Normal University**

Adaptive to Class of	Required Credit(s)	Elective Credit(s)	Free Elective Credit(s)	Minimum Total Credits for Graduation
110	4.0	21.0	0.0	25.0

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

### I. Required Courses: 4.0 credits are required

Course Code	Course Name	Credit(s)	Credit Unit		Note
			Lecture Hour	Lab/Practice Hour	
ESM0194	1 E Seminar (I)	1.0	2.0	0.0	
ESM0195	2 E Seminar (II)	1.0	0.0	2.0	
ESM0196	3 E Seminar (III)	1.0	2.0	0.0	
ESM0197	4 E Seminar (IV)	1.0	0.0	2.0	

### 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: 21.0 credits are required

Course Code	Course Name	Credit(s)	Credit Unit		Note
			Lecture Hour	Lab/Practice Hour	
ESC0133	1 E Sequence Stratigraphy	3.0	3.0	0.0	
ESC0242	2 E Advanced Synoptic Meteorology	3.0	3.0	0.0	
ESC0257	3 E Climate Change	3.0	3.0	0.0	
ESC0268	4 E Strain Analysis	3.0	3.0	0.0	
ESC0271	5 E Advanced Structural Geology	3.0	3.0	0.0	
ESC8036	6 E Core-Log Integration	3.0	3.0	0.0	
ESC8045	7 E Stress Regimes in Lithosphere	3.0	3.0	0.0	
ESC8047	8 E Theoretical Geophysics	3.0	3.0	0.0	
ESC9003	9 E Earthquakes of the Week	3.0	3.0	0.0	
ESC9016	10 E Planetary Geology	3.0	3.0	0.0	
ESC8014	11 E Topics on Seismology	3.0	3.0	0.0	
ESC0129	12 E Geochemistry	3.0	3.0	0.0	
ESC9019	13 E Introduction to Marine Geology	3.0	3.0	0.0	
ESC9033	14 E Tools for Modern Astronomy	3.0	3.0	0.0	
ESC0123	15 E Stable Isotope Geology	3.0	3.0	0.0	

### IV. Free Elective Credits: 0.0 credit is required