

Course Title	Earthquake Education
Objective	Undergraduate
General Description	(a)Fundamental theories and concepts in seismology (b)Earthquake education center guiding techniques (c)Guiding using second language
Grading	Homework (40%) Exercises (30%) Final Oral Presentation (20%) Attendance (10%)
Text Book	Modern Global Seismology

Syllabus

Weeks	Contents
1	Section I: What causes earthquakes? Plate tectonics, faulting types
2	The driving forces of plate tectonics; Students' oral presentation
3	Students' oral presentation for section I
4	Section II: seismic waves types, ray theory, velocity structures of the earth
5	Site effects; magnitude and intensity; Students' oral presentation(II)
6	Students' oral presentation (II)
7	Section III: focal mechanisms, waveform inversion, seismic precursors
8	Earthquake hazards; Students' oral presentation(III)
9	Students' oral presentation(III)
10	Section IV: Sandbox modeling and mountain building, fault related folds
11	Fault trench and paleoearthquakes; Students' oral presentation(IV)
12	Students' oral presentation(IV)
13	Special section: Environmental air quality monitoring project in NCCU
14	Students' oral presentation for special section
15	Final exam: Oral presentation using Maderine
16	Final exam: Oral presentation using Maderine
17	Final exam: Oral presentation using second language
18	Final exam: Oral presentation using second language