

**Course Structure for Undergraduate Program**  
**Department of Geography**  
**National Taiwan Normal University**

Adaptive to Class of	Common Courses Credit(s)	Required Credit(s)	Elective Credit(s)	Free Elective Credit(s)	Minimum Total Credits for Graduation
112	32.0	34.0	41.0	21.0	128.0

### I. General Course: 32.0 credits are required

Course Name	Credit(s)
<b>1 Chinese</b> 4.0 credits are required	
1-1 Chinese Reading and Thinking	2.0
1-2 Chinese Writing and Expression	2.0
<b>2 English</b> 6.0 credits are required, Students who major in Department of English must take the course which course code are ENU0168 and ENU0169 with a passing score for instead	
2-1 English(I)	2.0
2-2 English(II)	2.0
2-3 English(III)	2.0
<b>3 General Education Courses</b> 18.0 credits are required	
<b>3-1 Liberal Arts Course</b> 8.0 credits are required	
3-1-1 Humanities and Arts 2.0 credits are required	
3-1-2 Social Sciences 2.0 credits are required	
3-1-3 Natural Sciences 2.0 credits are required	
3-1-4 Logic and Computing 2.0 credits are required	
<b>3-2 Cross-domain Exploration</b> 4.0 credits are required	
3-2-1 College Common Course	
3-2-2 Cross-domain Professional Discovery Course	
3-2-3 Introduction to University Studies	
<b>3-3 Self-Directed Learning</b> maximum credits are 4.0	
3-3-1 Inquiry Study	
3-3-2 MOOCs	
<b>4 Physical Education</b> 4.0 credits are required, 4 courses are least required	
<b>5 Service-Learning</b> 1 course is least required	
5-1 Basic Service-Learning	0.0

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

### II. Required Courses: 34.0 credits are required

Course Code	Course Name	Credit(s)	Credit Unit		Note
			Lecture Hour	Lab/Practice Hour	
GEU0233	1 E Introduction to Geography (I)	2.0	2.0	0.0	
GEU0234	2 E Introduction to Geography (II)	2.0	2.0	0.0	
GEU0011	3 Geography of Taiwan	3.0	3.0	0.0	
GEU0167	4 Quantitative Geography	3.0	3.0	0.0	
GEU0001	5 Geomorphology	3.0	3.0	0.0	
GEU0014	6 E Geography of the World	3.0	3.0	0.0	
GEU0136	7 Climatology	3.0	3.0	0.0	
GEU0006	8 Economic Geography	3.0	3.0	0.0	
GEU0017	9 Cartography	3.0	3.0	0.0	
GEU0057	10 E Urban Geography	3.0	3.0	0.0	
GEU0166	11 E Geographic Information System	3.0	3.0	0.0	
GEU0118	12 Geographic Thoughts	3.0	3.0	0.0	

### III. Elective Courses: 41.0 credits are required

Course Code	Course Name	Credit(s)	Credit Unit		Note
			Lecture Hour	Lab/Practice Hour	
GEU0003	1 Hydrology	3.0	3.0	0.0	
GEU0004	2 Soil Geography	2.0	2.0	0.0	
GEU0005	3 Biogeography	3.0	3.0	0.0	
GEU0007	4 Settlement Geography	2.0	2.0	0.0	
GEU0008	5 Social Geography	3.0	3.0	0.0	
GEU0010	6 Cultural Geography	3.0	3.0	0.0	
GEU0015	7 Regional Geography	3.0	3.0	0.0	
GEU0016	8 E Statistics for Geography	3.0	3.0	0.0	
GEU0022	9 Fluvial and Coastal Geomorphology	3.0	3.0	0.0	
GEU0024	10 Geomorphology of Taiwan	3.0	3.0	0.0	
GEU0029	11 Climatology of World	3.0	3.0	0.0	
GEU0033	12 Climatology of Taiwan	3.0	3.0	0.0	
GEU0039	13 Climate Change	3.0	3.0	0.0	

Course Code	Course Name	Credit(s)	Credit Unit		Note
			Lecture Hour	Lab/Practice Hour	
GEU0046	14 Geology	3.0	3.0	0.0	
GEU0047	15 Meteorology	3.0	3.0	0.0	
GEU0050	16 Agricultural Geography	2.0	2.0	0.0	
GEU0053	17 Marketing Geography	2.0	2.0	0.0	
GEU0059	18 Geography of Population	3.0	3.0	0.0	
GEU0060	19 Behavioural Geography	3.0	3.0	0.0	
GEU0061	20 Geography of Tourism	2.0	2.0	0.0	
GEU0067	21 Geography of Europe	3.0	3.0	0.0	
GEU0068	22 Geography of America	3.0	3.0	0.0	
GEU0069	23 Geography of Asia	3.0	3.0	0.0	
GEU0070	24 Geography of Africa	2.0	2.0	0.0	
GEU0073	25 Remote Sensing	3.0	3.0	0.0	
GEU0074	26 Map Use and Analysis	3.0	3.0	0.0	
GEU0079	27 Geographic Information System Application	3.0	3.0	0.0	
GEU0086	28 E Geo-Ecology	3.0	3.0	0.0	
GEU0101	29 Natural Disasters	3.0	3.0	0.0	
GEU0103	30 Environmental Geography	2.0	2.0	0.0	
GEU0108	31 Oceanography	3.0	3.0	0.0	
GEU0120	32 Geography of China	2.0	2.0	0.0	
GEU0128	33 Application Computer Programming to Geography	3.0	3.0	0.0	
GEU0151	34 Soil and Water Conservation	3.0	3.0	0.0	
GEU0152	35 Digital Terrain Analysis	2.0	2.0	0.0	
GEU0154	36 Community Planning	3.0	3.0	0.0	
GEU0160	37 Political Economy of Space	3.0	3.0	0.0	
GEU0170	38 E Natural Resource Conservation	3.0	3.0	0.0	
GEU0174	39 Engineering Geomorphology	3.0	3.0	0.0	
GEU0176	40 Satellite Image Analysis and Applications	3.0	3.0	0.0	
GEU0178	41 Watershed Management	3.0	3.0	0.0	
GEU0179	42 E The Geography of Everyday Life	3.0	3.0	0.0	
GEU0183	43 E Geography of Development	3.0	3.0	0.0	
GEU0184	44 Surveying	3.0	3.0	0.0	
GEU0186	45 Urban Design and Regeneration	3.0	3.0	0.0	
GEU0187	46 National Park and World Heritage	2.0	2.0	0.0	
GEU0188	47 Site Planning	3.0	3.0	0.0	
GEU0194	48 Ecotourism and Recreation	3.0	3.0	0.0	
GEU0199	49 E Sustainable Tourism Management	3.0	3.0	0.0	
GEU0201	50 Reading the Classics in Human Geography	3.0	3.0	0.0	
GEU0202	51 Approach in Geography	3.0	3.0	0.0	
GEU0203	52 Spatial Decision Support System	2.0	2.0	0.0	
GEU0204	53 Urban Sociology	3.0	3.0	0.0	
GEU0209	54 Recreational Resource Management	2.0	2.0	0.0	
GEU0213	55 Studies in Teaching of Introduction to Geography	2.0	2.0	0.0	
GEU0214	56 Studies in Teaching of Regional Geography	2.0	2.0	0.0	
GEU0215	57 Spatial Experience and Observation	2.0	2.0	0.0	
GEU0216	58 Thinking Geographically in Film	3.0	3.0	0.0	
GEU0217	59 Field Surveying Practice	2.0	0.0	4.0	
GEU0218	60 The Global Positioning System	2.0	2.0	0.0	
GEU0226	61 Environmental Sustainability	3.0	3.0	0.0	
GEU0227	62 Land Laws and Regulations	3.0	3.0	0.0	
GEU0228	63 Advanced Geographic Information Systems	3.0	3.0	0.0	
GEU0229	64 Project-Based Learning in Geography	3.0	3.0	0.0	
GEU0230	65 Environmental Protection Administration	2.0	2.0	0.0	
GEU0231	66 Evaluation of Geography Education	2.0	2.0	0.0	
GEU0232	67 Research in Methods and Material of Teaching Geography	2.0	2.0	0.0	
GEU0235	68 Environmental Management and Regional Planning Practice	3.0	3.0	0.0	
GEU0236	69 Water Resources Engineering and Planning	3.0	3.0	0.0	
GEU0237	70 Landscape Graphic Drawing	3.0	3.0	0.0	
GEU0238	71 Geography of Railways	2.0	2.0	0.0	
GEU0239	72 Geovisualization	3.0	3.0	0.0	
GEU0240	73 Special Topics in the Inquiry and Practice of Social Studies	2.0	2.0	0.0	
GEU0241	74 Introduction to Social Studies	2.0	2.0	0.0	
GEU0242	75 Indigenous Geography	3.0	3.0	0.0	
GEU0243	76 Urban and Regional Planning	3.0	3.0	0.0	
GEU0244	77 Morphometry and Field Geomorphology	3.0	3.0	0.0	
GEU0256	78 Home Geography	2.0	2.0	0.0	

Course Code	Course Name	Credit(s)	Credit Unit		Note
			Lecture Hour	Lab/Practice Hour	
GEU0246	79 Computer-Aided Geography Instruction	2.0	2.0	0.0	
GEU0247	80 Urban Geographic Information System	3.0	3.0	0.0	
GEU0248	81 Location Analysis and Site Selection	3.0	3.0	0.0	
GEU0249	82 Introduction to Biodiversity and Conservation Biology	3.0	3.0	0.0	
GEU0250	83 Biodiversity in Taiwan	3.0	3.0	0.0	
GEU0251	84 Indigenous People for Environmental Conservation	2.0	2.0	0.0	
GEU0252	85 E Population, Culture and Migration in Europe	3.0	3.0	0.0	
GEU0253	86 E Sustainable Development in East Asia	1.0	1.0	0.0	
GEU0254	87 Toponymy	2.0	2.0	0.0	
GEU0255	88 Military and Strategic Geography	3.0	3.0	0.0	
GEC9002	89 E Social Network Analysis	3.0	3.0	0.0	
GEU0257	90 Food Culture Geography	3.0	3.0	0.0	
GEC9001	91 Web Crawler Practice	3.0	3.0	0.0	

IV. Free Elective Credits: 21.0 credits are required