國立東華大學

課　　綱　Course Outline

自然資源與環境學系學士班

中文課程名稱 Course Name in Chinese	普通地質學				
英文課程名稱 Course Name in English	Physical Geology				
科目代碼 Course Code	CES_10920	班 別 Degree	學士班 Bachelor’s		
修別 Type	學程 Program	學分數 Credit(s)	3.0	時 數 Hour(s)	3.0
先修課程 Prerequisite					

課程目標 Course Objectives
藉由課程的介紹，使同學瞭解地質學的特色及研究的範疇，使學生產生興趣，將所得的智識，應用其他相關學科的研究上。同時經由例證的介紹，瞭解地質學與環境之關連性。

系教育目標 Dept.’s Education Objectives	
1	培養兼具國際視野與本土關懷的學生 To develop students who care about local issues and have an international perspective
2	培養具備自然科學與社會科學知識的人才 To educate students to have knowledge of both the natural and social sciences
3	培養具備環境倫理與人文素養的環境公民 To teach students to be environmental citizens (i.e., knowledgeable about environmental ethics and human issues)

系專業能力 Basic Learning Outcomes		課程目標與系專業能力相關性 Correlation between Course Objectives and Dept.’s Education Objectives
A	具備自然科學與社會科學的基礎知識 To be knowledgeable of fundamental theories in the natural and social sciences.	
B	具備觀察、理解、闡釋自然環境與人類社會互動及變遷關係的能力 To be able to observe, understand, and interpret the changing interactions of natural resources and human society.	

C	具備多元資料收集策略、閱讀論文、撰寫環境報導及創意口頭報告的能力 To have the ability to collect data, understand scientific literature, and write and present environmentally related reports.	
D	能終身學習、對環境維持熱情、關懷、並願意做出對在地環境獻身的承諾 To cultivate the values of lifelong learning, to maintain enthusiasm and concern for the environment, and to develop commitment to the local environment.	
E	具備環境倫理觀、社會責任感與社會實踐力 To develop and implement environmental ethics and social responsibility.	
F	具備獨立思考、溝通協調與團隊合作的能力 To think independently, to communicate effectively, and to cooperate with others as a team.	
G	具備基本外國語文能力 The be able to communicate in a foreign language.	

圖示說明Illustration ：● 高度相關 Highly correlated ○中度相關 Moderately correlated

課程大綱
Course Outline

1.概論
2.地質時間
3.地質時間量測的方法
4.類地行星的形成
5.類地行星的早期歷史
6.大陸板塊的形成
7.大陸板塊的形成歷史
8.探測地球內部
9. 地震
10.風的作用
11.風成地形與沙漠
12.冰河的作用
13.冰河地形
14.地表作用
15.地表的形成過程

資源需求評估（師資專長之聘任、儀器設備的配合・・・等）
Resources Required (e.g. qualifications and expertise, instrument and equipment, etc.)

單槍投影機

課程要求和教學方式之建議
Course Requirements and Suggested Teaching Methods

課堂講授 Lecture
野外考察 Field Trip

其他
Miscellaneous

■平時成績 10%
■作業成績: 20%
■期中考試: 30%
■期末考試: 40%

教科書：

Grotzinger, J. and Jordan. T. (2010) Understanding Earth (6th edition). W. H. Greeman an d
Company, New York.
其他參考書目：
1.Skinner, B. J.and Porter, S. C. (2000) The Dynamic Earth: An Introduction to Physical Geology.
4th Edition. John Wiley and Sons. U.S.A. 575 pp.
2.何春蓀，1981，普通地質學，國立編譯館。台北。五南圖書出版公司。
3. Ernst, W.G. (Ed.) (1999) Earth Systems:Processes and Issues. Cambridge University Press, UK.