

Tamkang University Academic Year 114, 1st Semester Course Syllabus

Course Title	EARTH'S ECOSYSTEMS AND ENVIRONMENT	Instructor	TA-KEN HUANG
Course Class	TNUZB0F GLOBAL TECHNOLOGY REVOLUTION, OF	Details	◆ General Course ◆ Required ◆ One Semester ◆ 2 Credits
Relevance to SDGs	SDG11 Sustainable cities and communities SDG13 Climate action SDG14 Life below water SDG15 Life on land		
D e p a r t m e n t a l A i m o f E d u c a t i o n			
Students will understand recent development of modern science and technology and its impact on human society and global environment. Through the design of course students will also be familiar with broadly-based fundamental technical knowledge and improve.			
Subject Schoolwide essential virtues			
1. A global perspective. (ratio:20.00) 2. Information literacy. (ratio:10.00) 3. A vision for the future. (ratio:20.00) 4. Moral integrity. (ratio:10.00) 5. Independent thinking. (ratio:10.00) 6. A cheerful attitude and healthy lifestyle. (ratio:10.00) 7. A spirit of teamwork and dedication. (ratio:10.00) 8. A sense of aesthetic appreciation. (ratio:10.00)			
Course Introduction	This course is designed to provide an overview for the topics of earth’ s environments, ecosystems, and natural resources, etc. The impacts of global climate changes and technological developments on human society, and adaptation strategy will also be discussed.		

The correspondences between the course's instructional objectives and the cognitive, affective, and psychomotor objectives.

Differentiate the various objective methods among the cognitive, affective and psychomotor domains of the course's instructional objectives.

I. Cognitive : Emphasis upon the study of various kinds of knowledge in the cognition of the course's veracity, conception, procedures, outcomes, etc.

II.Affective : Emphasis upon the study of various kinds of knowledge in the course's appeal, morals, attitude, conviction, values, etc.

III.Psychomotor: Emphasis upon the study of the course's physical activity and technical manipulation.

No.	Teaching Objectives	objective methods
1	This course is designed to provide an overview for the topics of earth' s environments, ecosystems, and natural resources, etc. The impacts of global climate changes and technological developments on human society, and adaptation strategy will also be discussed.	Cognitive

The correspondences of teaching objectives : core competences, essential virtues, teaching methods, and assessment

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1		12345678	Lecture, Discussion, Publication, Practicum	Testing, Study Assignments, Report(including oral and written), Activity Participation

Course Schedule

Week	Date	Course Contents	Note
1	114/09/15 ~ 114/09/21	課程介紹:了解我們的環境	
2	114/09/22 ~ 114/09/28	環境系統:物質、能量與生命	
3	114/09/29 ~ 114/10/05	演化、物種互動與群落	
4	114/10/06 ~ 114/10/12	人口、生物群落區與生物多樣性	
5	114/10/13 ~ 114/10/19	環境保育:森林、草原、公園與自然保留區	
6	114/10/20 ~ 114/10/26	糧食與農業	
7	114/10/27 ~ 114/11/02	氣候與空氣污染	
8	114/11/03 ~ 114/11/09	水資源與水污染	
9	114/11/10 ~ 114/11/16	Midterm Exam/Midterm Assessment Week (teachers can adjust the week as needed)	

10	114/11/17 ~ 114/11/23	環境地質學與地球資源	
11	114/11/24 ~ 114/11/30	能源、固體與有害廢棄物	
12	114/12/01 ~ 114/12/07	經濟發展與都市化	
13	114/12/08 ~ 114/12/14	環境政策與永續	
14	114/12/15 ~ 114/12/21	同學讀書心得分享	
15	114/12/22 ~ 114/12/28	演講	
16	114/12/29 ~ 115/01/04	Final Week of Diverse Assessments	
17	115/01/05 ~ 115/01/11	Final Week of Diverse Assessments/Flexible Teaching Week for Teachers	
18	115/01/12 ~ 115/01/18	Flexible Teaching Week for Teachers	
Key capabilities		Interdisciplinary	
Interdisciplinary			
Distinctive teaching			
Course Content		Sustainability issue	
Requirement			
Textbooks and Teaching Materials		Using teaching materials from other writers:Textbooks Name of teaching materials: 白子易/編譯(2018)·環境科學概論：結合全球與在地永續發展(第八版)(原 著：Cunningham & Cunningham (2017), Principles of Environmental Science: Inquiry & Applications, 8e)·東華書局總經銷 (02-23114027) 。	

References	<p>文獻 1. 柳中明(2010)・全球環境變遷・華都文化事業有限公司出版・ISBN：9789866860850。</p> <p>2. 許靖華著・甘錫安譯(2012)・氣候創造歷史・聯經出版公司出版・ISBN：9789570840308。</p> <p>3. 梁皆得(導演)(2016)・老鷹想飛(DVD)・采昌國際多媒體股份有限公司發行・ISBN：4711404126017。</p> <p>4. 郭箴誠・商鼎科普編輯小組(2011)・暖化戰爭 首部曲：全球暖化與氣候變遷・商鼎數位出版有限公司出版・ISBN：9789861440873。</p> <p>5. 淡江大學(2012)・全球科技革命・淡江大學出版・ISBN 9789865982072。</p> <p>6. IPCC(2014) Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp., ISBN: 9789291691432, http://ar5-syr.ipcc.ch/ipcc/ipcc/resources/pdf/IPCC_SynthesisReport.pdf.</p> <p>7. IPCC(2019), Global warming of 1.5°C-Summary for Policymakers, https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf.</p> <p>8. MIT (2021) Global Change Outlook, https://globalchange.mit.edu/sites/default/files/newsletters/files/2021-JP-Outlook.pdf.</p> <p>9. 周桂田等 (2019)・日常生活的能源革命：八個臺灣能源轉型先驅者的故事・春山出版・ISBN：9789869735957</p>
Grading Policy	<p>◆ Attendance： 10.0 % ◆ Mark of Usual：20.0 % ◆ Midterm Exam： 25.0 %</p> <p>◆ Final Exam： 25.0 %</p> <p>◆ Other〈讀書報告和分享〉：20.0 %</p>
Note	<p>This syllabus may be uploaded at the website of Course Syllabus Management System at https://web2.ais.tku.edu.tw/csp or through the link of Course Syllabus Upload posted on the home page of TKU Office of Academic Affairs at http://www.acad.tku.edu.tw/CS/main.php.</p> <p>※"Adhere to the concept of intellectual property rights" and "Do not illegally photocopy, download, or distribute." Using original textbooks is advised. It is a crime to improperly photocopy others' publications.</p>