

文藻外語大學106學年度第1學期教學綱要
Wenzao Ursuline University of Languages
Syllabus for the 1st Semester of the 2017 Academic Year

「遵守智慧財產權觀念、不非法影印」

Please comply with intellectual property regulations and do not make
copies illegally.

壹、課程基本資料

課程名稱 Course Title	科技產業與環境保護 MODERN TECHNOLOGY AND ENVIRONMENTAL DEGRADATION		
課程類別 (學制) School System	日間部四技 4-Year College of Day Division		
開課單位 Department	通識教育中心		
授課教師 Instructor	陳秋豪	職稱 Position Title	助理教授
師生互動 Instructor's Contact Information	辦公室 Office	辦公室電話 Office Phone Number	7202
	電子信箱 E-mail	99626@mail.wzu.edu.tw	
	約談時間 Office Hours		
學分 Credits	2.0學分	選課別 Category	<input checked="" type="checkbox"/> 必修 Required Course <input type="checkbox"/> 選修 Elective Course
開課類別 Course Categories	<input type="checkbox"/> 學年課 For Academic Year <input checked="" type="checkbox"/> 學期課 For Academic Semester	開課年級 Year Taught: 3年級 授課班級 Class Taught: 日四技通識課程三	
課程概要 Course Description	<p>環境科學是一門利用跨領域的知識來探究地球與萬物和人相互共榮、共存及人如何解決所面臨的環境問題的學科。自然界是一個多元且複雜的生態系統，人類的自私與不當行為往往對地球環境造成無法修復的傷害。藉由本課程，學生們可以了解人類如何利用自然資源來維持生命的傳承，進而認識人類的行為如何影響自然環境，課程中，我們會探討許多環境相關的課題，例如：環境污染與防治、汙染動力學、生態系統、氣候變遷、生物多樣性、奈米與生物科技產業對環境的衝擊；另外，聯合國氣候變遷協議也會與課程內容連結並討論。環境問題的處理，經常會涉及社會、政治、科技、經濟等因素的考量，經由了解自然環境對人類生活的影響與衝擊，我們才知道如何開始著手處理環境的議題。</p> <p>Environmental science is an interdisciplinary study of how the earth works, how the earth works, how we interact with the earth, and how we can deal with the environmental problems we face. The natural world is complex and human activity can have unexpected consequences that are hard to reverse. You will learn how physical and biological processes maintain life, and how humans affects nature. From this course, you will study aspects of pollutions and control, pollution dynamics, ecosystems, climate change and biodiversity. In addition, the agreements of United Nations Climate Change Conferences will be mentioned in this course. Environmental problems and their associated solutions typically involve social, political, technology, and economic aspects. The impacts of nanotechnology and biotechnology to our environment will be discussed as well. It is only by under</p>		

	standing how the world works that we can begin to tackle the pressing environmental issues. In the end of the semester, students will be asked to present environmental related topics for their final projects.
課程目標 Course Objectives	<ol style="list-style-type: none"> 1. 同學們清楚了解地球的有限資源與維持生態平衡的重要系。 2. 培養同學們具備理解與分析環境相關的新聞、報告與學術文章的技能。 3. 讓同學能夠應用課堂所學的知識、觀念、定理於日常生活當中。 4. 使學生經由對環境議題的關注，養成同學們對社會具有責任感。 <ol style="list-style-type: none"> 1. Students will understand the importance of limited resources on earth and the stable balance in our ecosystem. 2. Students will demonstrate their ability to understand and analyze the environmental science related news, reports and articles. 3. Students will be able to apply the scientific knowledge and concepts, learned from this course, in their daily life. 4. Students will develop a sense of community responsibility by becoming aware of environmental issues.
評量方式與評分 比例分配 Evaluation Criteria	<ol style="list-style-type: none"> 1. Attendance 10% 2. In class Quiz 30% 3. Midterm Exam 30% 4. Final paper report 15% and oral presentation 15% (Everyone has to turn in your own report, any copies from your group-mate is not allowed. Late reports will be taken 50 pts off)
課堂要求 Course Requirements & Policies	<ol style="list-style-type: none"> 1. Students are required to attend all the classes on time and abide by all the classroom regulations of the college. Any sort of leave should be made beforehand and sick leave should be made on the day, before class starts, e-mail or phone call. The document should be signed along with a copy of prescription (or evidence signed by any relevant personnel) on the day when students return to school. 2. Students are not allowed to take any makeup test for any absence; Students are not permitted to use cellular phone in class; Students are regarded "ABSENT" if they are late by 10 minutes, unless a prior arrangement has been made. There are no make-up tests. If students have more than 5 unexcused absences, their semester score will have 30 points deduction. Students are required to check their attendance status regularly and make any necessary correction within one week. 3. Plagiarism is strictly prohibited. Assignment of plagiarism will be graded zero. Plagiarism will also be punished on the basis of school rules. 4. Teaching content might be adjusted in order to optimize students' learnings.
教科書 Textbooks	<p>「請學生務必使用正版教科書」 Please respect copyright and use original text books.</p> <p>1、書名：Living in the Environment 18th Edition 作者：G. Tyler Miller (Author), Scott Spoolman (Author) 出版社： 出版年： ISBN：9781133940135 是否自製教材：Y</p>
指定參考書目或 網址 References	<ol style="list-style-type: none"> 1、書名：環境科學概論2版 作者：毛明忠·王良榮·林郁欽·洪文洋·許俊鏘·陳明媛·劉如潔·鄭宇 出版社：普林斯頓出版社 2、書名：環境與生活 作者：陳健民 黃大駿 李得元 出版社：新文京出版社
補充資料 Additional Remark	本科目無相關下載檔案。

貳、課程內容與進度 (Course Content & Schedule)

週次 Week	上課日期 Date	單元名稱 Units	授課方式 Instructional Approaches	作業、報告、考試 或其它 Assignments, Tests and Others	備註 Remarks
1	106/09/18 ~ 106/09/24	Introduction of the environmental science	Lecture, Video, Discussion		
2	106/09/25 ~ 106/10/01	Introduction of Biology	Lecture, Video, Discussion		
3	106/10/02 ~ 106/10/08	No Class			
4	106/10/09 ~ 106/10/15	Introduction of Physics	Lecture, Video, Discussion	In-class quiz	
5	106/10/16 ~ 106/10/22	Ecosystem and major components	Lecture, Video, Discussion		
6	106/10/23 ~ 106/10/29	Water resources	Lecture, Video, Discussion	In-class quiz	
7	106/10/30 ~ 106/11/05	Climate and biodiversity	Lecture, Video, Discussion		
8	106/11/06 ~ 106/11/12	Air pollution Review for exam	Lecture, Video, Discussion		
9	106/11/13 ~ 106/11/19	Midterm Exam	Paper-Based Exam		
10	106/11/20 ~ 106/11/26	Solid and hazardous waste	Lecture, Video, Discussion	In-class Quiz	
11	106/11/27 ~ 106/12/03	Writing Skill and Preparation for the final project	Lecture, Video, Discussion		
12	106/12/04 ~ 106/12/10	Radioactive waste	Lecture, Video, Discussion	In-class Quiz	
13	106/12/11 ~ 106/12/17	Nonrenewable energy	Lecture, Video, Discussion		
14	106/12/18 ~ 106/12/24	Energy efficiency and renewable energy	Lecture, Video, Discussion		
15	106/12/25 ~ 106/12/31	1. Nanotechnology and environment 2. Biotechnology and environment	Lecture, Video, Discussion	In-class Quiz	
16	107/01/01	Environmental	Lecture, Video, Discussion		

	~ 107/01/07	worldviews, ethics, sustainability, and climate change conference			
17	107/01/08 ~ 107/01/14	Final Presentations	Lecture, Video, Discussion		
18	107/01/15 ~ 107/01/21	Final Presentations	Lecture, Video, Discussion		