中臺科技大學課程介紹
Course Syllabus

附件四

開課學期	107-2	部別	■日間部 ■進修部
系科	通識教育中心	學制	大學部
課程名稱	人與環境	授課教師	呂兆倉
課程類別	選修	開課班級	博學涵養□人文 ■自然
學分數	2	授課時間	
科目代碼		辦公地點	1214
開課代號		請益時間	

課程描述
Course Description

介紹當今人類所面臨的環境破壞之相關問題，並從中思考解決之策，以利人類生存環境之永續發展。

課程目標
Course Objectives

認知：有好的生存環境，人類才可永續發展。

情意：地球是我們共同的家。

技能：身體力行，維護好環境。

一般能力/專業能力
General/Core Learning Outcomes

一般能力

一、人文與思維

1、能瞭解人文、社會科學的基本概念與理論。

2、能基於人文、社會學的基礎認識，將此知識解釋人文社會的現象，並舉例說明。

3、能在生活中運用人文、社會學的知識，思辨、分析、批判探討人類與社會現象。

4、能覺知人文涵養教育所引發的心靈感動，欣賞、體悟多元文化與人文內涵之美。

二、內省與關懷

1、能進行內觀反省，了解自己的優、缺點，並據此作出適當的行為。

2、能藉由內觀反省，了解周遭人的感受，對群己、環境主動表現出關懷。

3、能對群己、環境的關懷產生價值感，成為態度。

4、能具有持久且一致主動關懷環境、群己，推己及人的品格。

三、創意與表達

1、能有效運用口頭語言、書面文書清楚表達自己的想法和他人的意見。

2、能運用適當工具與方式表述資料，且表述的內容論述與結構皆完整。

3、能有創意性的表述，並清楚傳達自己的想法。

4、表述的內容具有獨創見解，並與接收者可以進行有效的溝通與論辯。

四、科學與邏輯

1、能認識科學方法與科學精神的基本論述及主要內涵。

2、能運用多種思考方法，思索事務變化的因果和形式，探討事物間邏輯性關聯。

3、能依據邏輯推理原則，進行批判性思考。

4、能運用邏輯推理、批判性思辨能力，運用於生活與工作之中。

評量標準

Assessment standards					
☐ 期中考試	____30____ %	☐ 期中報告	_____ %	☐ 平時考	_____ %
☐ 期末未試	_____ %	☐ 期末報告	___15____ %	☐ 上課參與度	____ %
☐ 出席	____40____ %	☐ 口頭報告	___15____ %	☐ 其它	_____ %

教科書（書名、作者、出版社、備註）
Textbook （Title, Author, Publisher, Remarks ）

書名 Title	作者 Author	出版社 Publisher	備註 Remarks
環保與生活	環境教育課程編輯小組	普林斯頓	

參考書目（書名、作者、出版社、期刊、備註）
Reference Materials （Title, Author, Publisher/Journal, Remarks ）

書名 Title	作者 Author	出版社/期刊 Publisher/Journal	備註 Remarks
環境與生態	陳偉、石濤	新文京	
環境•人•生活	盧昭彰	高立	

授課進度
Course Schedule

週次 Week	科目主題 Course Subject	教學方式 Teaching Method	授課進度 Course Schedule
1	地球能容納多少人	上課	人口成長及其影響
2	地球能容納多少人	上課	人口成長對環境的影響
3	全球的環境問題	上課	臭氧層的破壞
4	全球的環境問題	上課	溫室效應及酸雨
5	大氣環境	上課	戶外及室內空氣汙染
6	大氣環境	上課	空氣汙染的影響
7	水環境	上課	水汙染
8	水環境	上課	廢汙水的處理
9	期中考試	考試	期中考試
10	土壤資源	上課	土壤保育與水土保持
11	土壤資源	上課	土壤汙染問題與整治
12	能源與環境	上課	能源的環境衝擊
13	能源與環境	上課	能源未來發展趨勢
14	廢棄物處理	上課	一般廢棄物
15	廢棄物處理	上課	有害廢棄物
16	環境品質與永續發展	上課	環境品質對健康的影響
17	環境品質與永續發展	上課	永續發展
18	書面期末報告及口頭報告	口頭報告	口頭報告

科目主題對應一般能力/專業能力之涵蓋率（填寫說明）
Coverage Rate of the Course Subject Correspond to the Ordinary Ability and Professional Ability

科目主題	能力指標涵蓋率%	
	專業能力%	一般能力%

	1	2	3	4	5		1	2	3	4
地球能容納多少人	20	20	20	20	20		25	25	25	25
全球的環境問題	20	20	20	20	20		25	25	25	25
大氣環境	20	20	20	20	20		25	25	25	25
水環境	20	20	20	20	20		25	25	25	25
土壤資源	20	20	20	20	20		25	25	25	25
能源與環境	20	20	20	20	20		25	25	25	25
廢棄物處理	20	20	20	20	20		25	25	25	25
環境品質與永續發展	20	20	20	20	20		25	25	25	25

專業能力說明

通識課程以訓練一般能力為主軸

一般能力說明

1.人文與思維

2.內省與關懷

3.創意與表達

4.科學與邏輯

Central Taiwan University of Science and Technology

Course Syllabus

Academic Year/Semester	107/2	Day/Night School	Day and Night School
Department	General Education	Program	
Course Title	People and environment	Instructor	Chao-Tsang LU
Course type	Elective	Class	Nature
Credit Hour	2	Hour（s）	
Course Code		Office	1214
Subject Code		Advisory Time	

Course Description

Describe the environmental destruction of today, and to consider the sustainable development of human living environment.

Course Objectives

Try your best to maintain the environment, and to create a good living environment for sustainable development.

General/Core Learning Outcomes

Genera Learning Outcomes

I. Humanism and thinking

1. Can comprehend the basic concepts and theories of humanistic and social sciences.
2. Can use the knowledge acquired from humanistic and social sciences to explain and illustrate humanistic and social phenomena.
3. Can use the knowledge of humanistic and social sciences to discern, analyze, and criticize human and social phenomena in daily life.
4. Can perceive the emotional blast triggered from humanistic nurture and appreciate the beauty of multiple cultures and humanistic spirit.

II. Reflection and care

1. Can reflect upon oneself, know one’s good and bad qualities and thereby act accordingly.
2. Can empathize with people around them through one’s reflection, and show their care towards others and the environment.
3. Can create a sense of value and thereby form a positive attitude from their care towards others and the environment.
4. Can become empathetic towards others and develop a virtuous character that cares for others and their environment in an active manner.

III. Creativity and expression

1. Can express oneself or others’ opinions in a clear and effective manner, through oral or written presentation.
2. Can use proper tools and methods to verbalize data and produce a logical and organized content.
3. Can convey one’s ideas in an original and lucid manner.
4. Can produce insightful thoughts and make effective communication or arguments with the audience.

IV. Science and logic

1. Can comprehend the basic discourse and major contents of scientific spirit and method.
2. Can exercise multiple thinking methods to ponder on the cause and format of issues and explore their correlations.

3. Can make critical thinking based on logical principles.
4. Can apply one's logical rationalization and critical thinking to their everyday life and work.

Assessment standards

1. Midterm 30%
2. Final report 15%, Oral report 15%
3. Attendence 40%

Textbook （Title, Author, Publisher, Remarks ）

Title	Author	Publisher	Remarks
Environmental Protection and Life	Environmental Education Course Team	Princeton	

Reference Materials （Title, Author, Publisher/Journal, Remarks ）

Title	Author	Publisher/ Journal	Remarks
Environment and Ecology	Chen, Wei and Shih,Tao	New Wun Ching	
Environment・People・Life	Lu, Jhao-Jhang	New Wun Ching	

Course Schedule

Week	Course Subject	Teaching Method	Course Schedule
1	How Many People Can Earth Support	Teaching	Population growth and its impacts
2	How Many People Can Earth Support	Teaching	The impact of population growth on the environment
3	Current Environmental Issues	Teaching	Ozone destruction
4	Current Environmental Issues	Teaching	Greenhouse effect and acid rain
5	Atmospheric Environment	Teaching	Outdoor and indoor air pollution
6	Atmospheric Environment	Teaching	Effects of air pollution
7	Water Environment	Teaching	Water pollution
8	Water Environment	Teaching	Wastewater treatment
9	Exam	Exam	Exam
10	Soil resources	Teaching	Soil conservation & soil and water conservation
11	Soil resources	Teaching	Soil pollution and remediation
12	Energy and Environment	Teaching	Environmental impacts of energy
13	Energy and Environment	Teaching	Trends the future of energy
14	Waste treatment	Teaching	General waste
15	Waste treatment	Teaching	Hazardous waste
16	Environmental Quality and Sustainable Development	Teaching	Impact of environmental quality on health status
17	Environmental Quality and Sustainable Development	Teaching	Sustainable development
18	Exam	Exam	Exam

Coverage Rate of the Course Subject Correspond to the Ordinary Ability and Professional Ability

Course Subject	Learning Outcomes %									
	Core %						General %			
	1	2	3	4	5		1	2	3	4
How Many People Can Earth Support	20	20	20	20	20		25	25	25	25
Current Environmental Issues	20	20	20	20	20		25	25	25	25
Atmospheric Environment	20	20	20	20	20		25	25	25	25
Water Environment	20	20	20	20	20		25	25	25	25
Soil resources	20	20	20	20	20		25	25	25	25
Energy and Environment	20	20	20	20	20		25	25	25	25
Waste treatment	20	20	20	20	20		25	25	25	25
Environmental Quality and Sustainable Development	20	20	20	20	20		25	25	25	25
Core Learning Outcomes	General Learning Outcomes 1. Humanities and Cogitation 2. Introspection and Solicitude 3. Creativity and Utterance 4. Science and Logic									