

## 课程详述

### COURSE SPECIFICATION

以下课程信息可能根据实际授课需要或在课程检讨之后产生变动。如对课程有任何疑问，请联系授课教师。

The course information as follows may be subject to change, either during the session because of unforeseen circumstances, or following review of the course at the end of the session. Queries about the course should be directed to the course instructor.

1.	<b>课程名称 Course Title</b>	全球气候变化与生态可持续发展
2.	<b>授课院系 Originating Department</b>	高等教育研究中心
3.	<b>课程编号 Course Code</b>	ITC008
4.	<b>课程学分 Credit Value</b>	2
5.	<b>课程类别 Course Type</b>	通识选修课程 General Education (GE) Elective Courses (请保留相应选项 Please only keep the relevant information)
6.	<b>授课学期 Semester</b>	春季 Spring / 夏季 Summer / 秋季 Fall
7.	<b>授课语言 Teaching Language</b>	英文 English (请保留相应选项 Please only keep the relevant information)
8.	<b>授课教师、所属学系、联系方式 Instructor(s), Affiliation &amp; Contact</b> (For team teaching, please list all instructors)	姜帆/高等教育研究中心/
9.	<b>实验员/助教、所属学系、联系方式 Tutor/TA(s), Contact</b>	无 NA (请保留相应选项 Please only keep the relevant information)
10.	<b>选课人数限额(可不填) Maximum Enrolment (Optional)</b>	

11. 授课方式 Delivery Method	讲授 Lectures	习题/辅导/讨论 Tutorials	实验/实习 Lab/Practical	其它(请具体注明) Other (Please specify)	总学时 Total
学时数 Credit Hours	32	0	0		32
12. 先修课程、其它学习要求 Pre-requisites or Other Academic Requirements	None				
13. 后续课程、其它学习规划 Courses for which this course is a pre-requisite	None				
14. 其它要求修读本课程的学系 Cross-listing Dept.	None				

### 教学大纲及教学日历 SYLLABUS

#### 15. 教学目标 Course Objectives

1. 识别和评估文化、宗教、道德和伦理在环境科学研究中的重要性
2. 识别和描述生物进化、自然选择和可持续发展概念的原理
3. 批判性地审视 17 个联合国可持续发展目标
4. 阐明影响可持续发展的主要问题以及如何在实践中实现可持续发展
5. 掌握和应用评估可持续发展程度的方法
6. 了解过度使用资源、人口增长和经济增长对可持续性的影响
7. 探索社会在向可再生资源利用转型过程中面临的挑战
8. 分析可持续性辩论中的论点、相似之处和分歧
9. 对于世界发展的能源进行比较和分析
10. 掌握空气、水、天气及其在地球上的运动如何影响气候变化的知识
11. 掌握人类如何影响环境的知识
12. 形成对人类今天面临的环境问题的批判性思维

This course will address:

1. Identify and evaluate the importance of culture, religion, morals and ethics in the study of environmental science.
2. Identify and describe principles of biological evolution, natural selection and concepts of sustainable development.

3. Examine critically the 17 UN Sustainable Development Goals.
4. Articulate the major issues affecting sustainable development and how sustainable development can be achieved in practice.
5. Identify and apply methods for assessing the achievement of sustainable development.
6. Understand the implications of overuse of resources, population growth and economic growth and sustainability.
7. Explore the challenges the society faces in making transition to renewable resource use.
8. Analyze arguments, similarities, and disagreements in the sustainability debate.
9. Compare and contrast the sources of energy that drive our world, both sustainable and non-sustainable or conventional.
10. Exhibit knowledge of how air, water, weather and their movement on earth affect climate change.
11. Demonstrate knowledge of how humans affect their environment.
12. Build critical thinking skills about environmental issues facing us today.
13. Communicate effectively in both oral and written forms, applying appropriate rhetorical standards (e.g., audience adaptation, language, argument, organization, evidence, etc).

16. 预达学习成果 Learning Outcomes

1. 什么是可持续发展
2. 了解我们的环境
3. 科学与系统原理
4. 进化、生物群落和物种相互作用
5. 什么是研究，如何进行良好的研究，文献检索，知识综合，报告写作要点
1. What is research, how to conduct a good research, literature search, knowledge synthesis, and report writing essentials
2. Overview of course format and learning objectives
3. Understanding our environment
4. Principles of science and systems
5. Evolution, biological communities, and species interactions

17. 课程内容及教学日历（如授课语言以英文为主，则课程内容介绍可以用英文；如团队教学或模块教学，教学日历须注明主讲人）

**Course Contents (in Parts/Chapters/Sections/Weeks. Please notify name of instructor for course section(s), if this is a team teaching or module course.)**

模块 1: 环境和可持续发展

模块 2: 种群生物学

模块 3: 气候变化

模块 4: 可持续商业实践和生态经济学

模块 5: 行星边界和环境法、政策和规划的概念

Module 1: Understanding our environment and sustainable development

Module 2: Population biology

Module 3: Climate change

Module 4: Sustainable business practices and ecological economics

Module 5: The concept of planetary boundaries and environmental law, policy, and planning

18. 教材及其它参考资料 Textbook and Supplementary Readings

课程评估 ASSESSMENT

19. 评估形式 Type of Assessment	评估时间 Time	占考试总成绩百分比 % of final score	违纪处罚 Penalty	备注 Notes
出勤 Attendance	32 学时	20%		
课堂表现 Class Performance	32 学时	20%		
小测验 Quiz				
课程项目 Projects				
平时作业 Assignments				
期中考试 Mid-Term Test				
期末考试 Final Exam	论文	60%		任选一个相关题目撰写论文
期末报告				

**Final Presentation**

其它（可根据需要  
改写以上评估方  
式）

**Others (The  
above may be  
modified as  
necessary)**


20. 记分方式 **GRADING SYSTEM**

- A. 十三级等级制 **Letter Grading**  
 B. 二级记分制（通过/不通过） **Pass/Fail Grading**

**课程审批 REVIEW AND APPROVAL**

21. 本课程设置已经过以下责任人/委员会审议通过  
**This Course has been approved by the following person or committee of authority**

