

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.	课程名称 Course Title	环境学导论 Introduction to Environmental Sciences
2.	授课院系 Originating Department	环境科学与工程 School of Environmental Science and Engineering
3.	课程编号 Course Code	ESE202
4.	课程学分 Credit Value	2
5.	课程类别 Course Type	专业基础课 Major Foundational Courses
6.	授课学期 Semester	秋季 Fall & 春季 Spring
7.	授课语言 Teaching Language	英文 English
8.	授课教师、所属学系、联系方式（如属团队授课，请列明其他授课教师） Instructor(s), Affiliation & Contact (For team teaching, please list all instructors)	郑 焰, 环境科学与工程学院, 邮箱: yan.zheng@sustech.edu.cn Yan Zheng, ESE, Email: yan.zheng@sustech.edu.cn
9.	实验员/助教、所属学系、联系方式 Tutor/TA(s), Contact	待公布 To be announced
10.	选课人数限额(可不填) Maximum Enrolment (Optional)	

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	17	9	6	0	32
12. 先修课程、其它学习要求 Pre-requisites or Other Academic Requirements	无 N/A				
13. 后续课程、其它学习规划 Courses for which this course is a pre-requisite	水处理工程 Water Treatment Engineering, 大气污染与防治 Atmospheric Pollution Prevention and Control, 地下水水文学 Groundwater Hydrology, 水资源评价与管理 Water Resources Assessment and Management, 生态修复 Ecological Restoration				
14. 其它要求修读本课程的学系 Cross-listing Dept.	无 N/A				

教学大纲及教学日历 SYLLABUS

15. 教学目标 Course Objectives

Individuals make countless choices in our daily lives that have undesirable impact on the environment, which, in turn, affect our health and the quality of our life collectively. Students will evaluate and compare the consequences of these choices on the environment, for examples, our air, water and soil. Students will explore the implications of our over-reliance on fossil fuels as energy sources and various approaches for an environmentally sustainable society, with examples drawn locally and globally. Through in depth analysis of the consequences of these choices, the goal is to introduce the students how environmental science and engineering as a discipline helps to address these 21st century challenges facing humanities today.

16. 预达学习成果 Learning Outcomes

- The aims and scope of environmental science and engineering as a discipline
- A basic understanding of to what extent humans have disrupted Earth's life supporting systems
- A basic understanding of how environmental advocacy, policy interventions and technical innovations are all necessary towards a sustainable world

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.)

NO.	Content	Hours				Sub-total
		Lecture	Lab	Recitation/Discussion/Debate	Computer Operation	
1	Introduction: A Brief History of Environmental Movement and Regulations	1		1 Ethics and Tragedy of Commons		2
2	Energy: Global and Local Environmental Impact	4	2 Indoor Air Quality	2 Carbon Dioxide		8
3	Water: Security and Safety	4	2 Microbial Indicator	2 Bottled Water		8
4	Soil: Critical Element for Food Production	4	2 Cadmium in Rice	2 French Fries		8
5	Mineral: Mining and Environment	4		2 e-Waste		6
Total		17	6	9		32

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

- (1) J. J. W. Rogers and P. G. Feiss, People and the Earth, Cambridge Univ. Press, 1998
- (2) Robbins, Hintz and Moore. 2014. Environment and Society: A Critical Introduction, 2nd ed, Wiley-Blackwell.

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				
课堂表现 Class Performance				
小测验 Quiz		10%		随堂进行 in class
课程项目 Projects		30%		
平时作业 Assignments		30%		
期中考试 Mid-Term Test				
期末考试 Final Exam		30%		闭卷考试 close-book exam

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

