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	**海洋生态系统导论 Introduction to Marine Ecosystems**
2.	授课院系 Originating Department	海洋科学与工程系 Department of Ocean Science and Engineering
3.	课程编号 Course Code	OCE302
4.	课程学分 Credit Value	3
5.	课程类别 Course Type	专业基础课 Major Foundational Courses
6.	授课学期 Semester	秋季 Fall
7.	授课语言 Teaching Language	中英双语 English & Chinese
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）	李芯芯 海洋科学与工程系 创园 9 栋 605 0755-88018796 Dr. Xinxin Li Department of Ocean Science and Engineering Chuang Yuan-9-605 0755-88018796
9.	实验员/助教、所属学系、联系方式 Tutor/TA(s), Contact	无 NA
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	48	0	0	0	48

12.	先修课程、其它学习要求 Pre-requisites or Other Academic Requirements	
13.	后续课程、其它学习规划 Courses for which this course is a pre-requisite	OCE307 化学海洋学 Chemical Oceanography OCE308 微生物海洋学 Microbial Oceanography OCE471 海上实习 Marine Cruises
14.	其它要求修读本课程的学系 Cross-listing Dept.	

教学大纲及教学日历 SYLLABUS

15. 教学目标 Course Objectives

海洋生态系统导论是针对本科生的对海洋生态系统的简介课程。将教授学生全面了解如何用生物学和化学等方法解决海洋生态和环境学问题，会着重强调微生物活动在海洋碳循环与地球环境变化间的相互作用。

This is an introduction to oceanography for undergraduate students. The class will provide you with a comprehensive overview of how the biology and chemistry are applied in addressing oceanographic questions. The emphasis will be on the interactions between microbial populations and environments at different scales in carbon and other elemental cycles of the marine systems.

16. 预达学习成果 Learning Outcomes

能力方面：具有自主学习的能力和终身学习的意识；具有获取有关专业信息的能力，掌握中外文资料查询、文献检索及运用现代信息技术获取和表达信息的基本方法；具有不断学习和适应社会发展的能力。

知识方面：系统掌握海洋生态学基本理论、基本知识和基本技能，了解海洋科学的知识体系和发展趋势；了解微生物海洋学和海洋有机地球化学的前沿发展现状和趋势。掌握一门外国语及基本的信息技术；具备一定的人文和社会科学知识。

The students will gain the ability of self-motivated study for their life-time; They are able to obtain the international scientific references, papers using modern information technology, and have the potential of continuous study and adaptation to the development of the society.

They master basic theories and skills of marine ecosystems, understand the knowledge, frontiers and development trends in microbial oceanography and marine organic geochemistry in different marine ecosystems. They master a foreign language and basic information technology, and obtain certain background in humanities and social sciences.

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.)

Topic	Hours	Note
1. 课程简介Syllabus and class introduction	3	
2. 初级生产力-1 Primary production processes-1	3	
3. 初级生产力-2 Primary production processes-2	3	
4. 微生物生态生产和有机物降解 Microbial Ecology Production and the Decomposition of Organic Material	3	
5. 二级生产力 Secondary Production	3	
6. 河口 Estuaries	3	
7. 期中考试 Mid-Term	3	
8. 岩石沙滩沿线 Rocky and Sandy Shores	3	
9. 海水生态系统 Pelagic ecosystems	3	
10. 大陆架研究 Continental shelf research	3	
11. 深海系统 The Deep Sea	3	
12. 红树林和海草甸 Mangrove Forests and Seagrass Meadows	3	

13. 珊瑚礁 Coral Reefs	3	
14. 极地系统 Polar Regions	3	
15. 复习 Review	3	
16. 期末考试 Final Exam	3	

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

教学包括教科书，课程讲座，文献资料阅读及讨论等，另可预约办公室解疑。

Classes are based on Textbook/Lectures/Assigned readings and discussion/Office hours by appointment.

Marine Ecology: Processes, Systems, and Impacts 2nd Edition

by Michel J. Kaiser, Martin J. Attrill, Simon Jennings, David N. Thomas, David K. A. Barnes

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		5		
课堂表现 Class Performance		0		
小测验 Quiz		0		
课程项目 Projects		0		
平时作业 Assignments		20		
期中考试 Mid-Term Test		30		
期末考试 Final Exam		45		
期末报告 Final Presentation		0		
其它（可根据需要改写以上评估方式） Others (The above may be modified as necessary)				自我约束 自我提高 This is a self-motivated class

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

海洋科学与工程系本科教学委员会
Department of Ocean Science and Engineering Undergraduate Committee


SUSTech
Southern University
of Science and
Technology