

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	土力学实验 Soil Mechanics Experiment
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	OCE327
4.	课程学分 Credit Value	1
5.	课程类别 Course Type	海洋工程与技术专业 专业必修课 Compulsory Course 海洋科学专业 专业选修课 Elective Course
6.	授课学期 Semester	秋季 Fall
7.	授课语言 Teaching Language	英语 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)	王誉泽 海洋科学与工程系 工学院南楼 204 0755-88015278 Yuze Wang, Room 204, Southern Building of Engineering Department, 0755-88015278 傅勇 海洋科学与工程系 工学院南楼 203 0755-88015254 Yong Fu, Room 203, Southern Building of Engineering Department, 0755-88015254 冯伟强 海洋科学与工程系 工学院南楼 202 0755-88015258 Weiqiang Feng, Room 202, Southern Building of Engineering Department, 0755-88015258
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	习题/辅导/讨论	实验/实习	其它(请具体注明)	总学时
	Lectures	Tutorials	Lab/Practical	Other (Please specify)	Total
学时数 Credit Hours			32		32
14. 其它要求修读本课程的学系 Cross-listing Dept.					
12. 先修课程、其它学习要求 Pre-requisites or Other Academic Requirements	OCE209 土力学 Soil Mechanics (先选课)				
13. 后续课程、其它学习规划 Courses for which this course is a pre-requisite					

教学大纲及教学日历 SYLLABUS

15. 教学目标 Course Objectives

通过本课程的教学，加深学生对土力学及土力学实验的认识，并激发学生对海洋工程的兴趣和热情，为今后的专业乃至职业选择提供参考依据。

By attending this course, students will improve their understanding of soil mechanics and soil mechanics experiments, and their applications in ocean engineering. This course will stimulate students' interest and enthusiasm in ocean engineering and help them to decide whether to pursue a degree in Ocean Engineering and a future career in relevant areas.

16. 预达学习成果 Learning Outcomes

土力学实验是与土力学课程相对应的实验课程。土力学是建设海洋工程构筑物，如围填海、海上堤坝工程、人工岛、海洋平台、海上和海底物资储藏设施、跨海桥梁、海底隧道工程以及海底管道等工程的重要基础课程。土力学课程中涉及的土的基本特性及土力学理论知识通过土力学实验进行研究，通过本课程的学习，加深学生对土力学的理解，提升学生在与土力学相关的知识的认识，使学生通过土的分类试验测试分析土的一般类型和它所属的工程类别，通过抗剪强度、压缩性和渗透性实验对土的工程性能进行评估。通过这门课程，激发学生对海洋工程及相关专业的兴趣和热情，为今后的专业乃至职业选择奠定基础。

Soil mechanics experiment is an experiment course corresponding to soil mechanics course. Soil mechanics is an important basic course for the construction of marine engineering structures, such as reclamation, offshore dam engineering, artificial islands, offshore platforms, offshore and submarine material storage facilities, cross-sea bridges, submarine tunnel engineering and submarine pipelines. The basic characteristics of soil and the theoretical knowledge of soil mechanics involved in the soil mechanics course are studied through soil mechanics experiments. Through the study of this course, students will improve their understanding of soil mechanics. In this course, the general type of soil and the engineering category it belongs to will be analysed by soil classification test tests, and the engineering performance of soil will be evaluated by shear strength, compressibility and permeability tests. Through this course, students' interest and enthusiasm in marine engineering and related majors will be stimulated, and the foundation for future majors and even career choices will be laid.

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.)

1. Introduction 课程简介（1学时，王誉泽）
2. Moisture content and index tests 含水量和物理指标（3学时，傅勇）
3. Particle size and soil chemical tests 粒径测试及土体化学特性测试（4学时，王誉泽）
4. Compaction tests and engineering classification of soil 压实试验及土的工程分类（4学时，傅勇）
5. Soil permeability tests 土体渗透性测试（4学时，王誉泽）
6. Oedometer consolidation tests 单轴固结测试（4学时，傅勇）
7. Unconfined compression strength tests 无侧限压缩强度试验（2学时，王誉泽）
8. Direct shear tests 直剪试验（2学时，冯伟强）
9. Triaxial testing 三轴试验（8学时，冯伟强）

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

教材：K.H. Head. Manual of Soil Laboratory Testing Volume 1-3. Whittles Publishing CRC Press

课程评估 ASSESSMENT

19. 评估形式 评估时间 占考试总成绩百分比 违纪处罚 备注

Type of Assessment	Time	% of final score	Penalty	Notes
出勤 Attendance		10		
课堂表现 Class Performance		10		
小测验 Quiz				
课程项目 Projects		80		
平时作业 Assignments				
期中考试 Mid-Term Test				
期末考试 Final 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

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