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	**科技创新项目 Projects of Science and Technology Innovation**
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	OCE480
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
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）	该课程的项目指导老师为海洋系全体教学科研序列老师。 This course will be directed by teachers Department of Ocean Science and Engineering. 课程协调人 Coordinator： 张传伦 海洋科学与工程系 慧园 6 栋 301 0755-88018785 Prof. Chuanlun Zhang Department of Ocean Sciences and Engineering Wisdom Valley-6-301 0755-88018785
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			64		64

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	
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

科技创新项目为学生尽早在实验室进入实验学习阶段提供了良好的机会。学生的题目由学生的科研导师拟定或根据学生的兴趣拟定。项目目的是突出新颖性和创新性，为学生开拓思路提高科研水平打下基础。

Science and technology innovation projects provide excellent opportunities for students to perform their laboratory experiments as early as possible. Students researching on different subjects can be assigned by advising professors according to students' interests. This project aims to highlight the novelty and innovation, providing a solid foundation for broadening students' idea development and improving students' research abilities.

16. 预达学习成果 Learning Outcomes

学生在科技创新试验课中掌握实验设计，表征，分析，及论文写作技能。

Students in this science and technology innovation course will learn the abilities and skills for experimental design, materials characterization, analysis, and research paper writing.

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.)

为提高海洋科学专业人才的科研创新能力，海洋科学与工程系设置了 OCE480 科研创新项目课程（2 学分，必修），安排本科生参与科研活动、学科模拟竞赛、科技创新型项目、社会实践、暑期交流活动项目等。学生可以选择在第一学年后的任何学期开展科技创新项目，满足该学分的最低学时要求为 64-72 学时。

本课程有以下几种修读方式：

1．参加大创项目并顺利结题，申请学分转换；

2．发表论文、竞赛获奖、申请专利等，申请学分互换；

3．修读创新创业类的相关课程（2 学分）替换该课程学分，且选择替换的创新创业类课程学分将不能再用于通识通修课学分。

4．参加海洋系组织的与本专业相关的科研创新实践活动或交流活动项目；

注：

1．如果要申请学分转换，请填写南方科技大学海洋科学与工程系本科生创新学分认定申请表，学生个人和指导老师签字后，再提交系办；

2．创新学分认定申请表中的创新项目类型“科研活动及其他”包括：主持或参与广东省“攀登计划”项目；学生创业项目（创客、创业等）；学生可以证明其参与且经过指导老师认定的科研、创新活动或项目。

In order to improve the scientific research and innovation ability of oceanography professionals, the Department of

Ocean Science and Engineering has set up the OCE480 course about research and innovation project (2 credits). Undergraduates need to participate in scientific research activities, subject simulation competitions, scientific and technological innovation projects, social practice, or summer exchange programs. Students can start a science and technology innovation project in any semester after the first year, and the minimum time requirement for the credits is 64-72 hours.

Several ways to earn the credits:

1. Participate in the Da Chuang-project and successfully complete the project, and then apply for credit transfer;

2. Publish papers, contest awards, patents, etc., and apply for credit exchange;

3. Take relevant courses about the innovation and entrepreneurship category (2 credits) to replace the credits of this course, and the credits for the selected innovative entrepreneurship courses will no longer be used for general education credits;

4. Participate in scientific research and innovation practice activities or exchange activities that are relevant to oceanography.

Please note:

1. If you want to apply for credit transfer, please fill out the application form for the undergraduate innovation credits of the Department of Ocean Science and Engineering of Southern University of Science and Technology. Please submit the form to the department, after sign by the student and the instructor;

2. The innovative project type “Scientific research activities and others” in the application form for innovative credits includes: hosting or participating in the “Climbing Plan” project in Guangdong Province, student entrepreneurship projects (creator, entrepreneurship, etc), and participating in scientific research and creative activities. All the activities must be identified by their supervisors.

具体教学日历 Course Contents：

1.组建团队，安排工作进度 （4 学时）

Form several teams and make project schedule (4 class hours)

2.定义问题，集思广益创新项目（4 学时）

Discuss about the scheme with team partners. (4 class hours)

3.确定问题、目标，选择最终项目（4 学时）

Confirm the problem to solve, and choose the final scheme. (4 class hours)

4.调研，设计实验，完成项目启动报告（8 学时）

Research, design experiments, and complete project start-up report. (8 class hours)

5.完成科技创新项目（32 学时）

Complete the project. (32 class hours)

6. 准备科技创新实验项目口头报告和书面报告（8 学时）

Prepares oral presentation and project written report. (8 class hours)

7.课堂演示及汇报总结（4 学时） Presentation. (4 class hours)

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

无 NA

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				
课程项目 Projects				
平时作业 Assignments		40		
期中考试 Mid-Term Test				
期末考试 Final Exam				
期末报告 Final Presentation		60		
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