

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	材料科学与工程系 Department of Materials Science and Engineering				
3.	课程编号 Course Code	MSE480				
4.	课程学分 Credit Value	2				
5.	课程类别 Course Type	专业基础课 Major Foundational Course				
6.	授课学期 Semester	春季 Spring / 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)	田颜清, 材料科学与工程系, 电子邮箱: tianyq@sustc.edu.cn 叶飞, 材料科学与工程系, 电子邮箱: yef3@sustc.edu.cn Yanqing Tian, Department of MSE, Email: tianyq@sustc.edu.cn Fei Ye, Department of MSE, Email: yef3@sustc.edu.cn////				
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)	无 NA				
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	无 NA
13. 后续课程、其它学习规划 Courses for which this course is a pre-requisite	无 NA
14. 其它要求修读本课程的学系 Cross-listing Dept.	无 NA

教学大纲及教学日历 SYLLABUS

15. **教学目标 Course Objectives**

本课程是为了鼓励学生在本科学习期间参加科技创新活动设置，通过各种形式的科学研究和技术创新来实现对于大学本科在校生的科技创新精神和能力的培养，为其发展为科技创新性人才奠定基础。学生参加学校或以上级别专业知识和竞赛获奖，参加大学生创新创业训练计划项目以及各类科研项目，发表学术论文和专利，参加高新技术成果交易会或博览会并展出成果，参加国内和国际学术会议并汇报成果等，都可以认定学分。

The purpose of this course is to encourage students to participate in scientific and technological innovation activities during their undergraduate study. Through various forms of scientific research and technological innovation, the cultivation of students' scientific and technological innovation spirit and ability can be realized, so as to lay a foundation for the development of scientific and technological innovative talents. The credit can be recognized by attendance of university or higher level professional knowledge and contest, innovation and entrepreneurship training program, and all kinds of scientific research projects, as well as publishing papers and patents, attending the hi-tech fair and exhibition, attending domestic and international academic conferences and giving reports.

16. **预达学习成果 Learning Outcomes**

1. 能够识别工程实践问题，通过文献检索，进行综合分析判断，并在此基础上合理选材或设计材料加工工艺，过程中具有创新意识。
 2. 了解国内外标准，能够合理分析和评价针对工程问题提出的解决方案对社会、环境、法律等相关因素的影响。
 3. 学习掌握本专业常用实验方法、设备应用。
 4. 具备与科研团队沟通、协调能力和决策能力。
 5. 具备撰写设计说明书或论文报告的能力。
 6. 具备语言表达、思辨能力，阐述观点准确、清楚回答问题的能力。
1. To identify engineering practical problems, conduct comprehensive analysis and judgment through literature survey, and reasonably select materials or design material processing technology with a sense of innovation in the process.
 2. To understand domestic and international standards, and be able to reasonably analyze and evaluate the impact of solutions to engineering problems on social, environmental, legal and other related factors.
 3. To learn and master common experimental methods and equipment applications.
 4. To master the ability to communicate, coordinate and make decisions with the scientific research team.
 5. Capable of writing design specifications or thesis reports.
 6. Capable of language expression, critical thinking, accurate viewpoint elaboration and clear answer to questions.

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.)

学生在学术导师指导下参加各类科技活动。可以在任一学期认定学分。学分认定需要满足下列要求：

1. 在同行评估的学术杂志发表学术论文（三作及以上）；
2. 获得校级及以上级别竞赛奖；
3. 取得校级及以上级别科研项目且获学术导师认可，包括但不限于“大学生创新创业训练计划项目”、“广东省攀登计划”、“深圳市创客”等；
4. 作为中国国际高新技术成果交易会等行业博览会参展人并展出成果；
5. 参加国际会议或国内会议，为向会议方递交论文的第一作者（如第一作者为我校指导老师，学生可以为第二作者），并在会议上做口头报告或海报展出 PPT；
6. 发表专利；（至少第三申请人）；
7. 参加创新创业学院的《创新创业大讲堂》

Students participate in various scientific and technological activities under the guidance of academic tutors. Credits can be recognized in any semester. Credit recognition must meet the following requirements:

1. Publish academic papers in peer-reviewed journals.
2. Win the university level and above competition award.
3. Attend university-level or above scientific research projects and can be recognized by academic tutors, including but not limited to "college student innovation", "New entrepreneurship training program", "Guangdong climbing plan", "Shenzhen maker", etc.
4. Participated in and exhibited the achievements at hi-tech fair.
5. Participate in international or domestic conferences, and submit the paper to the conference and give oral or poster presentation.
6. Publication of patents (at least the third applicant).
7. Participated in "Innovation and entrepreneurship lecture" of the college of innovation and entrepreneurship.

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
认定学分 Credit recognize		100		

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



南方科技大学
SOUTHERN UNIVERSITY OF SCIENCE AND TECHNOLOGY

