

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	科研创新项目 Projects of Science and Technology Innovation				
2.	授课院系 Originating Department	化学系 Department of Chemistry				
3.	课程编号 Course Code	CH480				
4.	课程学分 Credit Value	8				
5.	课程类别 Course Type	专业实践课 Major Practical Courses				
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)	各专业导师 All faculty				
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			256		256

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	
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**

通过创新科研项目给学生提供化学实验室的安全培训并培养科学的思维方法，了解化学学科的研究前沿，提高学习化学的兴趣，获得科研实验方法和技术的理论及实践操作训练，探索感兴趣的研究方向，为毕业论文打下良好基础。

Projects of Science and Technology Innovation aim to provide students with safety training in chemistry laboratory and to cultivate the scientific thinking, to help students understand the frontiers of chemistry research, inspire their chemistry learning by doing research, and explore interested research fields. The course is expected to lay a good foundation for graduation Theses.

16. 预达学习成果 **Learning Outcomes**

学生通过科研创新课程达到以下成果：（1）获得化学实验室的安全培训，熟悉并了解化学实验室并培养基本的实验技能；（2）了解化学学科研究前沿，探索感兴趣的研究方向；（3）在 SCI 杂志上发表论文或国际或国内大型会议中交流研究成果。

On completion of this course, students are expected to (1) obtain safety training in chemical labs, have basic understanding of chemistry labs and develop basic experimental skills for doing scientific research; (2) understand the frontiers of chemical research, explore interested research fields, and (3) publish research papers in SCI journals or present research development in international or domestic conferences.

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.)



学生在各课题组按照指导老师指定的课题从事科研活动，接受教授及课题组更高年级成员的指导，参加课题组组会并定期汇报。有可能的话在 SCI 杂志上发表科研成果。

Students are engaged in scientific topics assigned by supervising professors, receive guidance from the professors and senior members of the research groups, participate in group meeting and report regularly. If possible, publish scientific papers in SCI journals.

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

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		30		由指导教授评估，基于以下几个方面： 学生在实验室中的平均每周小时和/或 累计总时间； 是否遵守导师制定的规则，准则和职业行为； 在实验室工作时的努力程度以及完成质量。 The evaluation provided by the supervising professor, on the basis of

			the following aspects: Average weekly hours and/or total cumulative time a student spent in the laboratory; Compliance with the rules, guidelines, and professional conduct set forth by the supervisor; The diligence and quality in completing the assigned laboratory work.
期中考试 Mid-Term Test			
期末考试 Final Exam			
期末报告 Final Presentation	70		学生需提交一份不低于 2000 字的研究报告，经指导教师审核同意后才能参加项目口头答辩。 The student is required to submit a research report of not less than 2000 words, and participates in final PPT-based oral presentation upon the approval of the supervising professor.
其它（可根据需要 改写以上评估方式） Others (The above may be modified as necessary)			成绩按照通过和未通过记录。 The course is graded as Pass or Fail.

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

化学系教学指导委员会
Teaching committee of the chemistry department