

## 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 <b>Course Title</b>	电子信息科学研究实践 I <b>Research Practice of Electronic and Information Science I</b>
2.	授课院系 <b>Originating Department</b>	电子与电气工程系 Department of Electrical and Electronic Engineering
3.	课程编号 <b>Course Code</b>	EE353
4.	课程学分 <b>Credit Value</b>	1
5.	课程类别 <b>Course Type</b>	专业选修课 Major Elective Courses
6.	授课学期 <b>Semester</b>	秋季 Fall
7.	授课语言 <b>Teaching Language</b>	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） <b>Instructor(s), Affiliation &amp; Contact</b> (For team teaching, please list all instructors)	无 NA
9.	实验员/助教、所属学系、联系方式 <b>Tutor/TA(s), Contact</b>	待公布 To be announced
10.	选课人数限额(可不填) <b>Maximum Enrolment (Optional)</b>	

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			32		32
12. 先修课程、其它学习要求 Pre-requisites or Other Academic Requirements	EE212 电子信息高阶讲座课 EE212 Advanced Lecture for Information Science				
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

本课程专为电子系学有余力的拔尖学生开设。选修此课程的学生需要选择 1 位我系教授作为导师，并在其指导下从事科研工作。教授需对学生进行一对一指导，并保证每周时长满足 2 小时以上。学生在两学期的实践中需要完成提交或发表至少一篇本领域的顶级期刊论文，作为通过该课程的依据，否则视为不通过。

This course is open for top-notch students in EEE department. The students who choose this course should select one of EEE professors as their mentors, who will supervise his research work. The mentors should spend at least two hours per week for one-to-one discussion with their students. As the final examination, the students should submit or publish at least one research article in the top journals. Otherwise they will fail this course.

#### 16. 预达学习成果 Learning Outcomes

通过这门课程，学生有望具有

1. 查找和阅读科技文献，以及自学能力
2. 运用数学，科学和工程知识进行科学探索的能力
3. 找出，规划，并解决工程问题的能力
4. 设计并实施实验，设计元器件或系统，以及/或开发算法能力
5. 使用现代工具和/或软件探索并解决工程问题的能力。
6. 分析和解释数据的能力

By taking this course, students are expected to have the ability to

1. search and read literature for a given topic;
2. apply the knowledge of mathematics, science and engineering to investigate a research problem;
3. Identify, formulate and solve engineering problem;
4. Design and conduct experiment, and/or design a component or system, and/or develop algorithms
5. Use modern tools and software to investigate and solve engineering problems
6. analyse and interpret data,

#### 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.)**

第 1 周：学生选择创新实验项目，递交课题简介表。

第 2-14 周：学生进行创新实验项目。

第 15-16 周：准备创新实验项目口头报告和书面报告，项目导师审核项目报告。

Week 1: Students choose research projects, and submit project information forms.

Week 2-14: Students participant in chosen research projects.

Week 15-16: Students give oral presentations and submit written reports, and professors evaluate project reports.

**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				
期中考试 Mid-Term Test				
期末考试 Final Exam				
期末报告		100%		口头报告和书面报告

**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)**

			Project oral presentation and written report

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**

电子与电气工程系  
 Department of Electronic and Electrical Engineering

