

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	电子创意设计 I Creative Electronic Design I
2.	授课院系 Originating Department	电子与电气工程系 Department of Electrical & Electronic Engineering
3.	课程编号 Course Code	EES101
4.	课程学分 Credit Value	1
5.	课程类别 Course Type	专业选修课 Major Elective Courses
6.	授课学期 Semester	夏季 Summer
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)	<p>孙小卫 讲座教授 电子与电气工程系 sunxw@sustech.edu.cn 陈 霏 副教授 电子与电气工程系 fchen@sustech.edu.cn 余 浩 副教授 电子与电气工程系 yuh3@sustech.edu.cn 程庆沙 助理教授 电子与电气工程系 chengqs@sustech.edu.cn 张利君 工程师 电子与电气工程系 zhanglj@sustech.edu.cn 王小静 实验员 电子与电气工程系 wangxj@sustech.edu.cn 吴 光 工程师 电子与电气工程系 wug@sustech.edu.cn 刘欢 实验员 电子与电气工程系 liangll@sustech.edu.cn 庞利会 工程师 电子与电气工程系 panglh@sustech.edu.cn</p> <p>Xiaowei Sun Chair Prof. Dept. of Electrical & Electronic Engr. sunxw@sustech.edu.cn Fei Chen Associate Prof. Department of EEE fchen@sustech.edu.cn Hao Yu Associate Prof. Department of EEE yuh3@sustech.edu.cn Qingsha Cheng Assistant Prof. Department of EEE chengqs@sustech.edu.cn Lijun Zhang Department of EEE zhanglj@sustech.edu.cn Xiaojing Wang Department of EEE wangxj@sustech.edu.cn Guang Wu Department of EEE wug@sustech.edu.cn Huan Liu Department of EEE liuh3@sustech.edu.cn Lihui Pang Department of EEE panglh@sustech.edu.cn</p>
9.	实验员/助教、所属学系、联系方式	无 NA

Tutor/TA(s), Contact					
10. Maximum Enrolment (Optional)	选课人数限额(可不填)				
11. 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	8	0	16	0	24
12. Pre-requisites or Other Academic Requirements	先修课程、其它学习要求 PHY105B 大学物理(下) B PHY105B General Physics B (II)				
13. Courses for which this course is a pre-requisite	后续课程、其它学习规划				
14. Cross-listing Dept.	其它要求修读本课程的学系				

教学大纲及教学日历 SYLLABUS

15. 教学目标 Course Objectives

本课程旨在引导学生学习电子系各专业的兴趣，课程讲座的开设帮助学生进一步了解电子系的各个专业的基本情况及各位教授的研究方向，实验室里开展的小项目研究让学生对于各个专业方向的一些有趣的基础的科学实验有个初步的接触，掌握基本的实验技能，为将来更深入的学习打好基础。

This course is aimed to attract students to study electronics, select electronic and electrical engineering as their major. Lectures delivered by professors will give an introduction about the Department of Electrical and Electronic Engineering, including the four specialties, faculties, research fields and facilities in the department. Some interesting experiments and projects in the lab will lead students to the colorful electronic world, allow them to grasp the basic scientific experiment skills and help them to prepare for the coming major course study as well.

16. 预达学习成果 Learning Outcomes

通过本课程的学习，学生基本上了解电子系各专业的特色及研究方向，对于各个专业方向设计的四个基本实验能顺利的完成，提交实验报告，初步掌握基本实验技能，为将来实验室的工作打好基础。

After completion of this course, students should have a comprehensive understanding about the Department of Electrical and Electronic Engineering. Students should finish four experiments and projects designed by engineers, submit experimental reports. By this way, they will grasp the basic experimental skills, know how to use the experimental instruments in the lab and find fun to study electrical and electronic engineering.

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.)

讲座一、电子系介绍及光电专业介绍

讲座二、信息工程专业介绍

讲座三、微电子科学与工程专业介绍

讲座四、通信工程专业介绍

实验一、LED 流水灯

实验二、光刻实验

实验三、基于 LabVIEW 的创意编程

实验四、双向光纤通信技术

Lecture 1. An Introduction of the Department of EEE and an introduction of Optoelectronic Information Science and Engineering

Lecture 2. An Introduction of Information Engineering

Lecture 3. An Introduction of Microelectronic Science and Engineering

Lecture 4. An Introduction of Communication Engineering

Experiment 1. Twinkling LED Lights

Experiment 2. Photolithography Experiment

Experiment 3. Creative Programming with LabVIEW

Experiment 4. Bidirectional Optical Fiber Communication

Southern University
of Science and
Technology

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				
实验报告 Lab Reports		100%		
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 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**

<input checked="" type="checkbox"/> A. 十三级等级制 Letter Grading <input type="checkbox"/> 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

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