

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	偏微分方程专题 Topics in Partial Differential Equations
2.	授课院系 Originating Department	数学系 Department of Mathematics
3.	课程编号 Course Code	MAT7045
4.	课程学分 Credit Value	3
5.	课程类别 Course Type	专业选修课 Major Elective Courses
6.	授课学期 Semester	春季 Spring
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)	数学系 王学锋 教授 wangxf@sustc.edu.cn 88018754 慧园 3 栋 530 数学系 苏琳琳 助理教授 sull@sustc.edu.cn 88018679 慧园 3 栋 403 Department of Mathematics; Xuefeng Wang, Professor; Room 530, Block 3, Wisdom Valley Department of Mathematics; Linlin Su, Assistant Professor; Room 403, Block 3, Wisdom Valley
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
- 学时数
Credit Hours

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
48				48

12. 先修课程、其它学习要求
Pre-requisites or Other
Academic Requirements

至少选过本科生 MA303 偏微分方程课程；最好选过研究生 MAT7022&7023 偏微分方程(上、下)
MA303 Partial Differential Equations (pre-requisite); MAT7022&7023 Partial Differential Equations I & II (preferred)

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

介绍偏微分方程的科研前沿结果，给学生提出好的科研问题，引导他们到一个活跃的、有发展前途的研究领域。

The course will expose the students to the research front of partial differential equations, and provide to them good research problems, leading them to an active and promising research field.

16. 预达学习成果 Learning Outcomes

通过本门课程的学习，学生将了解该研究领域的前沿结果和科研问题，掌握该领域里的基本研究方法，并对所完成的小组项目问题有深入的了解。

Through this course, students will learn about the cutting-edge results and major open problems in this field, will master the fundamental methods, and have an in-depth understanding of the topics of the group projects.

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.)

教学内容将是授课教师自己的科研成果及其他人的有关结论,使得整个课程在特定的学期里有一个主旋律。因而内容随授课人的变化而变化,不同学期讲授的内容也会不同。以教师授课为主,有课堂讨论,全班学生分成几个小组,每个小组做一个科研性质的项目并做演讲。

The course will be centred on the instructor's own research results, plus other researchers' related results, so that the whole course in a fixed semester has a theme/focus. Thus the content of the course will vary from instructor to instructor, and time to time. Lectures by instructors, in-class discussions, students will be asked to do group projects of research nature and then make presentations.

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		50%		课堂参与讨论
小测验 Quiz				
课程项目 Projects		50%		项目完成情况+演讲表现
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)

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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

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