

课程大纲 COURSE SYLLABUS

1.	课程代码/名称 Course Code/Title	MAE5011 流体力学前沿研究讲座 Seminars for Frontier in Fluid Mechanics
2.	课程性质 Compulsory/Elective	研究生课程 Graduate course
6.	课程学分/学时 Course Credits/Hours	2/32
7.	授课语言 Teaching Language	中文
8.	授课教师 Instructor(s)	单肖文教授等
9.	先修要求 Pre-requisites	无
10.	教学目标 Course Objectives	
	<p>本课程主要介绍流体力学当代前沿的研究方向以及它们在高新技术发展中的应用,通过本课程学习,使学生能对流体力学前沿研究方向中若干专题有所了解,提高学生对流体力学的兴趣,掌握相关专家的研究方法和技巧,找到自己的研究兴趣和课题, 把握自己的研究重点和思路,做出创新工作。</p> <p>The present course introduces the cutting-edge knowledges in fluid mechanics as well as their applications during the developments of high and novel technology. The present course would help postgraduates to learn some special frontier research topics in fluid mechanics, to stimulate their interests in fluid mechanics, to learn some new methods and skills from the experts, and to find their own research interests and topics. The present course may also help postgraduates to narrow their research focus, to spark new ideas, and to make original contributions in research.</p>	
11.	教学方法 Teaching Methods	
	科学报告 Seminars	
12.	教学内容 Course Contents	
	Section 1	单肖文-格子玻尔兹曼方法新进展 (2 学时) Advance in Lattice Boltzmann Method (2)
	Section 2	甘晓华-航空发动机技术 (2 学时) Aero-engine Techniques (2)
	Section 3	刘宇-航空声学 (2 学时) Aeroacoustics (2)
	Section 4	余鹏-多孔介质流动 (2 学时) Porous Flow (2)
	Section 5	万敏平-湍流 (2 学时) Turbulence (2)
	Section 6	其他知名教授特邀报告 11 场 (共 22 学时) Other 11 invited seminars by famous professors (22)
13.	课程考核 Course Assessment	
	平时成绩 (50%) + 项目 (50%) Attendance (50%) + Projects (50%)	

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