

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	水力学基础实验 Hydraulics Basic Experiment				
2.	授课院系 Originating Department	环境科学与工程学院 School of Environmental Science and Engineering				
3.	课程编号 Course Code	ESE218				
4.	课程学分 Credit Value	0.5				
5.	课程类别 Course Type	专业核心课 Major Core Courses				
6.	授课学期 Semester	春季 Spring				
7.	授课语言 Teaching Language	中文 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)	授课教师 Name: 匡星星 Kuang Xingxing 所属学系 Dep.: 环境科学与工程学院 School of Environmental Science and Engineering 联系方式 Email: kuangxx@sustech.edu.cn				
9.	实验员/助教、所属学系、联系方式 Tutor/TA(s), Contact	待公布 To be announced				
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	4	0	12	0	16

12. 先修课程、其它学习要求 Pre-requisites or Other Academic Requirements	先选课 Co-requisites:水力学 Hydraulics
13. 后续课程、其它学习规划 Courses for which this course is a pre-requisite	无 N/A
14. 其它要求修读本课程的学系 Cross-listing Dept.	无 N/A

教学大纲及教学日历 SYLLABUS

15. 教学目标 Course Objectives

《水力学基础实验》是通过做实验，增加学生对水力学的感性知识，提高动手能力，是水文与水资源工程本科专业的专业核心课。通过讲课和实验训练，使学生具备下列能力：

(1) 归纳、整理与分析水力学实验结果，分析水力学中较复杂的工程问题，以获得有效实验结论；

(2) 能够利用和改进实验条件，针对较复杂的水力学实验问题，提出工程问题的解决方案，培养设计环节的创新意识与能力；

(3) 熟练使用压力传感、流速测定仪等现代工具。

The aim of this course is making students familiar with some basic experiments in hydraulics and improve their experimental skills to solve problems experimentally. Main contents of this course include Bernoulli equation, Venturi flow meter, and Reynolds experiment.

16. 预达学习成果 Learning Outcomes

学生能够使用实验手段分析和解决实际问题

After this course, students can use experiments to analyze and solve practical hydraulic problems.

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.)

第一讲、流动要素量测(Part 1)(2学时)/ Lecture 1: Flow Parameters Measurement Part 1 (2 class hours)

第二讲、流动要素量测(Part 2)(2学时)/ Lecture 2: Flow Parameters Measurement Part 2 (2 class hours)

实验一、恒定总流伯努利方程综合性实验(Part 1)(2学时)/ Experiment 1: Experiment of Bernoulli Equation of Total Flow Part 1 (2 class hours)

实验一、恒定总流伯努利方程综合性实验(Part 2)(2学时)/ Experiment 1: Experiment of Bernoulli Equation of Total Flow Part 2 (2 class hours)

实验二、文丘里综合型实验(Part 1)(2学时)/ Experiment 2: Venturi Experiment Part 1 (2 class hours)

实验二、文丘里综合型实验(Part 2)(2学时)/ Experiment 2: Venturi Experiment Part 2 (2 class hours)

实验三、雷诺实验(Part 1)(2学时)/ Experiment 3: Reynolds Experiment Part 1 (2 class hours)

实验三、雷诺实验(Part 2)(2学时)/ Experiment 3: Reynolds Experiment Part 2 (2 class hours)

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

教材/Textbook:

《流体力学》（第二版），李玉柱、苑明顺，高等教育出版社，2008

Yuzhu Li, and Mingshun Yuan, Hydraulics (second edition), Beijing: Higher Education Press, 2008.

教参/References for Further Reading:

《应用流体力学实验》，毛根海主编，高等教育出版社，2008

Genhai Mao, Experiment of Applied Fluid Mechanics, Beijing: Higher Education Press, 2008.

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		10%		
课堂表现 Class Performance		20%		
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 Final Presentation				

实验报告
Experiment Report
其它（可根据需要
改写以上评估方
式）
Others (The above may be modified as necessary)

	70%		

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

