

课程大纲

COURSE SYLLABUS

1.	课程代码/名称 Course Code/Title	工业应用与实践中的设计创新 Design Innovation in Industrial Application and Practice
2.	课程性质 Compulsory/Elective	专业选修课 Major Elective Courses
3.	开课单位 Offering Dept.	School of Design
4.	课程学分/学时 Course Credit/Hours	3/48
5.	授课语言 Teaching Language	英 English
6.	授课教师 Instructor(s)	cmherr@sustech.edu.cn Christiane Margerita Herr, Professor, School of Design
7.	开课学期 Semester	秋季 Fall
8.	是否面向本科生开放 Open to undergraduates or not	无 No
9.	先修要求 Pre-requisites	(如面向本科生开放, 请注明区分内容。 If the course is open to undergraduates, please indicate the difference.) 无
10.	教学目标 Course Objectives	<p>(如面向本科生开放, 请注明区分内容。 If the course is open to undergraduates, please indicate the difference.)</p> <p>This course introduces students to design activity as a form of inquiry found across a broad range of disciplines. In particular, the course examines how design is engaged in the context of industrial design and development both locally and globally. Theoretical models of design and innovation are discussed with a view to different disciplinary conceptions of the design process. Examples of design inquiry are illustrated in historical and contemporary instances. As part of the course, students employ selected modes and methods of design research to generate innovative ideas and to translate these ideas into designed outcomes. To this end, students will engage in processes of design activity and inquiry in applied exercises throughout the course.</p> <p>At the end of this course, students will be able to:</p> <ol style="list-style-type: none"> 1. Describe a variety of design methods 2. Apply design research methods as part of design processes. 3. Present and critically reflect on processes of design inquiry.
11.	教学方法 Teaching Methods	<p>(如面向本科生开放, 请注明区分内容。 If the course is open to undergraduates, please indicate the difference.)</p> <p>课堂教学, 主题前沿讲座, 课程项目实践与报告。 Teaching methods include classroom lectures, invited guest lectures, discussions and presentations as well as applied exercises and course projects involving design practice.</p>
12.	教学内容	

Course Contents

(如面向本科生开放, 请注明区分内容。 If the course is open to undergraduates, please indicate the difference.)

Section 1 (2 hours)	Introduction: What is design? Design as a process of inquiry Student project briefing
Section 2 (4 hours)	Design as a circular conversational process. What is a good design research question? Discussion of student project proposals
Section 3 (2 hours)	A brief history: past, present and future of design innovation
Section 4 (4 hours)	Design, science and engineering: models and values Cross-disciplinary design processes Discussion of student proposals
Section 5 (2 hours)	Design concepts and implementations: design processes in practice Design and risk
Section 6 (4 hours)	Case studies I Design tutorials on student case studies
Section 7 (2 hours)	Design presentation and review
Section 8 (4 hours)	Interim presentation of student work
Section 9 (2 hours)	The role of stakeholders in the design process
Section 10 (4 hours)	Design tutorials and group discussion
Section 11 (2 hours)	Case studies II: Design and competition
Section 12 (4 hours)	Design tutorials and group discussion
Section 13 (2 hours)	Design and responsibility, sustainable design
Section 14 (4 hours)	Design tutorials and group discussion
Section 15 (2 hours)	Design presentation / tutorials on presentation
Section 16 (4 hours)	Final presentation of student work

13. 课程考核**Course Assessment**

(①考核形式 Form of examination; ②.分数构成 grading policy; ③如面向本科生开放, 请注明区分内容。 If the course is open to undergraduates, please indicate the difference.)

1、考核形式 Form of examination: 等级制 Letter Grading

2、分数构成 grading policy:

出勤 Attendance 10%

平时作业 Assignments 20%

期末报告 Final Presentation 70%

14. 教材及其它参考资料

Textbook and Supplementary Readings

教材及参考材料:

1. Visocky O'Grady, J. and Visocky O'Grady, K. (2017) A Designer's Research Manual: Succeed in Design by Knowing Your Clients and Understanding What They Really Need. 2nd edition, Rockport, 2017.
2. Koskinen, I., Zimmerman, J. et al. (2011) Design Research Through Practice: From the Lab, Field, and Showroom. Elsevier / Morgan Kaufmann, 2011.