机械（085500）全日制硕士培养方案

2020 Full-time International Master Program for Mechanical Engineering

一、 基本信息 Basic Information

院 系 名 称 School	(430)设计学院 School of Design		适 用 年 级 Grade	2021
适 用 专 业 Major	机械（085500） Mechanical Engineering			
项 目 类 型 Program Type	全日制硕士			
最 低 学 分 Min Credit	30	最低 GPA 学分 Min GPA Credit	28	最低 GPA Min GPA	2.7

二、学科简介 Introduction

本专业创建于 1986 年，1999 年开始招收研究生，是首批有权授予硕士学位的学科之一，师资雄厚、治学严谨，拥有全校设计实验大平台。本学科结合交大综合性大学的强大优势，以培养设计与艺术领域的引领者为目标。

现有硕士生导师 28 人，其中教授/研究员 7 人，博士生导师 9 人，副教授/副研究员 15 人，有博士学位者超过 7 成。学科下设智能化设计、用户体验设计、设计战略与管理、信息与交互设计、设计文化与社会创新等研究方向。

本专业与国内外政府和企业合作开发项目，成果累累，并与很多国际知名设计院校建立了广泛的学术交流关系，形成了人才培养与科研的合作机制。毕业生就业去向为高端制造业和通讯类企业、专业设计公司、政府管理部门及自主创业。

This discipline of design was first established in 1986, starting to enroll graduate students in 1999, one of the very first in China. It specializes in fusing major innovation, training high-end designers, building integrated design and research platform.

The department has 28 Graduate tutors, includes 7 professors, 9 Doctor's tutors, 15 associate professors, and most of the teachers hold a doctor's degree in design.Our

department of Design is a hub for innovation at SJTU. Students and faculty in engineering, art, design, humanities, sciences and education areas find their ways here to solve the fuzzy front-end problems. There are five directions within the major: intelligent design, user experience design, design management and strategy, information and interaction design, social innovation and design culture.

Our department has abundant collaborations with governments and enterprises, as well as schools inland and abroad, forming an effective system of cultivating talents. Graduates usually go to high-end manufacturing, telecom, design companies, government, and some start their own business.

三、培养目标 Program Objective

本项目主要立足国家发展需要，面向高端装备、智能制造、互联网数字文创领域创新设计需求，以设计与智能科技、设计与社会转型、设计与生活方式三个方向为特色，通过课程建设、师资建设、人才培养资源建设，培养具有国际视野的工业设计工程高级专业人才。

This program aimed at answeing the growing needs of high-end equipment design, intelligent manufacturing, new media and digital innovation. It focuses on three areas: design and intelligent technology, design and social change, design and lifestyle. Through practical curriculum construction, advanced experts from industry and comprehensive education resources, it cultivates high-end design professionals who can work and act with a global view.

四、培养方式及学习年限 Training Mode and Study Duration

国际工业设计工程硕士研究生学制通常为两年半，总学分数 30，GPA 学分大于等于 25。建议在三学期内完成课程学分要求。每学期选修不超过 15 学分。

This is a full-time master program with the normal length of 2.5 years. Students are required to take at least 30 credits in total, with a minimum requirement of 25 GPA counted. Normally students should finish all courses except thesis course in the first 3 semesters. Each semester a student could enroll in a maximum of 15 credits.

五、课程学习要求 Course Requirement

课程类别 Course Type	学分要求 Min Credits	GPA 学分要求 Min GPA Credit
公共基础课 General Fundamental Courses	5	4
专业基础课 Program Core Courses	9	9
专业前沿课 Program Frontier Courses	14	14

专业选修课 Program Elective Courses	0	

六、培养过程要求 Training Requirement

本项目要求学生积极参与项目实践、学科竞赛或撰写论文。学生需完成毕业论文并由校内导师和校外导师共同组成的答辩委员会批准通过。

This program required students to participate in design practice and competitions, as well as writing papers. Students should finish their graduation thesis and approved by an academic committee composed of school teacher and professional tutors.

七、学术成果要求 Requirement on Academic Achievements

本专业要求学生积极参与实践项目和具有国际影响力的比赛或撰写论文。要求学生获得设计专利或比赛奖项、或项目投产成果、或 EI/CSCD/CSSCI 期刊论文。

本专业要求完成毕业论文并通过答辩。

This course require students participate in practical projects and international competitions, or writing papers. Students should have registered patent, or award, or in-production design, or EI/CSCD/CSSCI journal paper.

This is a thesis program, students are quired to finish graduation thesis.

八、学位论文 Thesis/dissertation work

1、规范性要求

　　学位论文必须在导师的指导下由研究生独立撰写，（a）第三学期论文开题；第四学期论文中期考核（b）第五学期初预答辩；（c）若预答辩未通过，推迟 3 个月进行第二次预答辩；（d）第五学期正式答辩。答辩委员会由 3～5 位具有中级职称以上（含具有硕士生培养资格的中级职称专家）的同行专家组成答辩委员会，其中需有 1 至2 名具有相关行业实践经验的校外专家。硕士专业学位研究生在规定的学习年限内完成培养计划,课程成绩合格并达到规定的总学分和绩点要求；符合学院规定的科研成果要求，通过硕士学位论文评审及答辩，无学术诚信问题者，可按照本规定申请授予硕士专业学位。学位论文的选题一般应符合本研究方向特征，并具有较强的实践意义。

2、质量要求

　　论文撰写格式按照学校的有关规定执行。论文要求概念清晰、材料丰富、逻辑周严、数据详实、分析深刻、观点创新。论文要包含相关研究课题的学术性内容或设计与艺术创作实践性内容，并达到较高的学术要求。

The thesis should focus on the issues in the field of design, be in tune with the development of related disciplines, meet the standards of academic writing, and fully demonstrate the students' creativeness and capacity in design practices. Also, the thesis must be written independently by the students under the guidance of supervisors. It should be submitted before the final oral defense and reviewed by 2 peer professors. Some thesis will be picked randomly for Blind Review and sent to other universities for reviewing.

The oral defense for graduation thesis has two steps: pre-oral defense and final oral defense.

1) Pre-oral defense usually happens in early 5th semester. It is set to for the committee to exam the work if it meets the standard of graduation. The committee consists of 3-5 professors and professional tutors with supervisors excluded. Pre-oral defense should take place with the supervisors' permit. Only after passing the pre-oral defense can the student attend the final oral defense. If students fail, they should be given a second chance to attend another round of pre-oral defense. If they fail again, the graduation process will postpone to next year.

2) The final oral defense usually happens in late 5th semester. Students should finish their thesis in prior to the defense, get the permit from supervisors and prepare to meet the academic committee's evaluation. If they fail, the graduation process will be postponed to next year.

After passing the oral defense and evaluation by the committee, the students will be issued a graduation certificate of Master program of International Industrial Design Engineering and a diploma of Master of Engineering in Design.

九、课程设置 Courses
详见下页 Please refer to the next page.

课程类别 Category	课程代码 Course Code	课程名称 Course Name 中文 Chinese	English 英文	学分 Credit	授课语言 Language	开课学期 Semester	是否必修 Compusory	可以计算 GPA	必须计算 GPA	备注 Note	多选组 Course Group
公共基础课 General Fundamental Courses	HST6402	科技伦理	The Ethics of Science and Technology	3	中文	春季	是	是	否	港澳台学生必修	最少 2 门、最低 3 分
	CHN0916	中国文化概论	Introduction to Chinese Culture	2	中文	春秋季	是	是	是	留学生必修	最少 2 门、最低 3 分
	CHN6207	汉语	Chinese	4	中文	春秋季	是	否	否	留学生必修	最少 2 门、最低 3 分
	MARX6001	新时代中国特色社会主义理论与实践	Theory and Practice of Socialism with Chinese Characteristics in the New Era	2	中文	春秋季	是	是	是	中国大陆籍学生必修	最少 2 门、最低 3 分
	MARX6003	自然辩证法概论	Introduction to Dialectics of Nature	1	中文	春秋季	是	是	是	中国大陆籍学生必修	最少 2 门、最低 3 分
	POL6304	论语与当代中国	The Analects of Confucius and Contemporary China	3	英文	春秋季	是	是	是	港澳台学生必修	最少 2 门、最低 3 分
	FL6001	学术英语	English for Academic Purposes	2	英文	春秋季	是	是	是		
专业基础课 Program Core Courses	ARCH8002	社会与设计—一种居住史纲	Society and Design – A History of Housing	3	英文	秋季	否	是	是		
	DES8006	设计战略与管理	Design Strategy & Management	2	英文	秋季	否	是	是		
	DES8009	用户研究	User Study	2	英文	秋季	否	是	是		
	LA8504	生态与设计	Ecology and Design	2	英文	秋季	否	是	是		
	DES6005	创新设计思维	Creative Design Thinking (CDT)	3	英文	春季	否	是	是		
	DES8034	数字与设计	Informatics and Design	2	英文	春季	否	是	是		
	GE6001	学术写作、规范与伦理	Scientific Writing, Integrity and Ethics	1	英文	春秋季	是	是	是		
	GE6011	学术报告会	Academic Lectures	1	英文	夏季	是	否	否		
专业前沿课 Program Frontier Courses	ARCH8003	多学科合作设计：大系统下的现实及虚拟"社区"	Multidisciplinary Cooperative Design: Treal and Virtual "Community" Design Under the Big System	4	英文	秋季	否	是	是		
	DES6104	赋能设计	Design for Augmented Intelligence	4	中文	秋季	否	是	是		
	DES8104	泛娱乐智能设计	Pan-Entertainment Intelligent Design	2	英文	秋季	否	是	否		

	DES8105	互联网产品设计	Web Product Design	2	英文	秋季	否	是	否		
	DES8107	智慧出行设计	Intelligent Mobility Research and Design (IMRD)	3	英文	秋季	否	是	是		
	GE8001	专业实践	Professional Practice	1	中文	秋季	是	否	否		
	DES6003	用户体验与服务设计	User Experience & Service Design	4	英文	春季	否	是	是		
	DES8007	为生活设计	Design and Way of Living	2	英文	春季	否	是	否		
	DES8008	艺术形态	Art Form	2	英文	春季	否	是	否		
	DES8030	光文化设计	Lighting Design	2	英文	春季	否	是	否		
	DES8033	影像设计表达	Design and Expression of Image	2	中文	春季	否	是	否		
	DES8307	文旅环境空间产品创新设计	Spatial Products Design on Creative Cultural and Tourism Environment	2	中文	春季	否	是	否		
	DES8205	智能与交互设计	Intelligent Interaction Research	2	英文	夏季	否	是	否		