

环境科学与工程(083000)全日制硕士培养方案

Environmental Science and Engineering

一、基本信息 Basic Information

院 系 名 称 School	(160) 环境科学与工程学院 School of Environmental Science & Engineering			适 用 年 级 Grade	2025
适 用 专 业 Major	环境科学与工程(083000) Environmental Science and Engineering				
项 目 类 型 Program Type	全日制硕士				
最 低 学 分 Min Credit	23	最低GPA学分 Min GPA Credit	14	最低GPA Min GPA	2.7

二、学科简介 Introduction

1984年获准环境化学硕士点，开始培养环境化学硕士生，1998年调整为环境工程硕士点，同年又获准环境工程硕士点，2000年获准环境工程二级学科博士点，2003年获准环境科学与工程一级学科博士点，同年设立环境科学与工程博士后流动站。在流域水污染控制、区域大气污染控制、废弃物资源化、环境功能材料、土壤地下水污染治理、环境化学与毒理学、环境管理、海洋环境等方面，具有鲜明的特色与厚重的积累。学院拥有完善的教学与科研体系和先进分析测试平台，承担着大量的国家级、省部级、国际合作以及企业委托的科研项目。

As early as the 1984 we began to cultivate the master's students in environmental field. It was adjusted to the master degree of environmental engineering in 1998. The environmental science master station was established at the same year. In 2000, a second-rate discipline of environmental engineering for doctor-degree program was established. The first-rate discipline of environmental science and engineering for doctor-degree program was established in 2003. The school was approved to have post-doctoral mobile center of first class discipline of Environmental Science and Engineering in 2003. The major research fields are regional water pollution control, regional air pollution control, solid waste treatment and disposal, environment function materials, soil and groundwater remediation, environmental chemistry and toxicology, environmental management, marine environment, etc. The school has advanced teaching and research system, and the public service platform, the center laboratory, guarantees the advanced analysis and test. The school also undertakes many national, international and industrial scientific research projects.

三、培养目标 Program Objective

培养德、智、体、美、劳全面发展，热爱祖国、遵纪守法、品行端正，具有艰苦奋斗、为人民服务 and 为社会主义建设事业献身的精神，具有扎实的基础理论与系统的专门知识，熟练掌握英语，能够撰写研究论文，具备批判思维、创新能力、实践能力与全球视野，具有较强的解决和探索环境污染控制、生态文明建设等问题的能力，具有从事科学研究工作或担负专门技术工作能力的环境科学与工程领域的卓越人才。

To cultivate all-round development of morality, intelligence, body and beauty, to love the motherland, to abide by the law and to be law-abiding, to have a spirit of hard work, to serve the people and to dedicate themselves to the cause of socialist construction, and to have a broad basic theory and systematic expertise. He is proficient in English, and can read English literature in this major, write research papers, be familiar with the history, current situation and trend of environmental science development at home and abroad. He has good critical thinking, innovative ability and practical ability, and has strong solutions and The ability to explore environmental pollution control issues, a global vision of the environment and high-level talents in the field of environmental science and engineering engaged in scientific research or the ability to work in specialized fields.

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

本项目学制为3年，采用全日制学习、导师制培养模式；新生入学后两周内经师生互选确定导师； 硕士生最长可延长1学年。

This program requires a full-time study for 3 years under a supervisor mutually seleted. Upon approval of the application, the maximum period of study can be extended by one year.

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	备注 Note
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公共基础课 General Fundamental Courses	10.5	4	
专业基础课 Program Core Courses	10	10	
专业前沿课 Program Frontier Courses	6		
专业选修课 Program Elective Courses	3		

六、培养过程要求 Training Requirement

- 一、课程学习:课程原则上要求在第一学年完成。
- 二、开题报告:由导师(课程组)组织,一般在第三学期进行,参加开题报告时,硕士生应已基本完成培养计划中规定的课程学习,并成绩合格,GPA≥2.7。学生在交我办(myjtu.com)发起申请并完成在线归档,附件须完备。
- 三、中期检查:由学院集中组织,一般在第四学期进行,最晚应在学位论文送审前3个月进行,参加中期检查时,硕士生应已完成培养计划中规定的课程学习,并成绩合格,GPA≥2.7;学位论文开题已通过。学生在交我办(myjtu.com)发起申请并完成在线归档,附件须完备。
- 四、论文答辩:由学院集中组织,一般在第六学期进行。

- 1. Course Learning
Time of completion: In principle, course learning should be completed in the first academic year.
- 2. Thesis Proposals
Time and organizing: The thesis-proposal is organized by the supervisor and is generally conducted in the third semester.
Prerequisites: When participating in the thesis-proposal, master students should have basically completed the course study specified in the training plan and passed the grade with a GPA ≥ 2.7.
Filing: Students should apply and file on my.sjtu.edu.cn with complete reports and reviewing procedure.
- 3. The Mid-term Examination
Time and organizing: The mid-term examination is held by the school collectively and is generally conducted in the fourth semester or should be conducted 3 months before the dissertation is submitted for review.
Prerequisites: When participating in the mid-term examination, the master student should have completed the course study specified in the training plan and passed the grade with a GPA ≥ 2.7, and the thesis-proposal has been approved as well.
Filing: Students should apply and file on my.sjtu.edu.cn with complete reports and reviewing procedure.
- 4. Thesis Defense:
Time and organizing: Thesis defense presentation is held by the school collectively before the end of the sixth semester.

七、学术成果要求 Requirement on Academic Achievements

- 学术型硕士学位申请者应满足以下条件之一:
- 1)以第一作者或排第一的共同第一作者发表或录用一篇SCI论文(导师应为作者之一),或导师为第一作者、学生为第二作者发表一篇A及以上高水平学术论文(高水平学术论文认定参照《上海交通大学和教育部代表期刊分类目录》)。第一作者单位应为上海交通大学。
 - 2)以第一发明人(导师为责任人)或第二发明人(导师为第一发明人)申请国际专利并进入国家知识产权局审查状态或中国发明专利获得授权,第一专利权人应为上海交通大学。
 - 3)完成份英文项目报告(仅限于国际双学位学生)。
 - 4)经学院学位评定委员会认定的其他创新性成果。
 - 5)对于在学期间,从事过技术创新性或尖端性研究,力争经过长期攻关取得突破性、颠覆性科研成果的硕士生,若答辩时无成果发表的,须通过学院规定的申请认定程序。

- Applicants for an academic master's degree should meet one of the following criteria:
- 1. Publish or accept 1 SCI/SSCI paper as the first author or the first co-first author (the supervisor should be one of the authors), or the supervisor is the first author and the student is th second author to publish 1 3A or above high-level academic paper (refer to the "Classification Catalogue of Representative Journals of the School of Environmental Science and Engineerin Shanghai Jiao Tong University" for the recognition of high-level academic papers). The first author's affiliation should be Shanghai Jiao Tong University.
 - 2. If the first inventor (the tutor is the responsible person) or the second inventor (the tutor is the first inventor) applies for an international patent and enters the national phase substant examination status or the Chinese invention patent is authorized, the first patentee shall be Shanghai Jiao Tong University.
 - 3. Complete 1 project report in English (only for international double degree students).
 - 4. Other forms of innovative achievements recognized by the Academic Degree Evaluation Committee of the college.
 - 5. For master's students who are engaged in basic, innovative or cutting-edge research in the frontier of science, disruptive technologies or fields, and strive to achieve breakthrough and disruptive scientific research results through long-term research, if there are no achievements published before the defense, they must go through the application and recognition procedures stipulated by the college.

八、学位论文 Thesis/dissertation work

规范性要求硕士学位论文撰写格式按照《上海交通大学博士、硕士学位论文撰写指南》,学位论文答辩与学位申请按照《上海交通大学关于申请授予硕士学位的规定》执行。

质量要求硕士学位论文必须对所研究的课题在基本原理和专门技术等某一方面有新的见解,或用已有理论及最新科技手段解决本学科的实际问题,在学术上有一定的理论意义或应用价值。

1. Normative Requirements The writing format of thesis for master degree is in accordance with the Master's Degree Thesis Writing Guide. Thesis defense and degree application are in accordance with the Regulation of Master's Degree Application
2. Quality Control Master degree thesis of the study must contain new ideas in a certain aspect of basic theory and specialized technology. Or using the theory and the latest achievements to solve the practical problems of this subject. A certain theoretical significance and application value in the academic is required.

九、课程设置 Courses

详见下页 Please refer to the next page.

撰稿人签字:

日 期:

校稿人签字:

日 期:

审核人签字:

日 期:

主管院长签字:

院系公章

日期:

课程类别 Category	课程代码 Course Code	课程名称 Course Name		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
		中文Chinese	English 英文								
公共基础课 General Fundamental Courses	CHN0916	中国文化概论	Introduction to Chinese Culture	2	中英并行开班	秋季	是	是	是		
	CHN6207	汉语	Chinese	4	中文	秋季	是	否	否		
	FL6001	学术英语	English for Academic Purposes	2	英文	秋季	是	是	是		
	GE6001	学术写作、规范与伦理	Scientific Writing, Integrity and Ethics	1	英文	春秋季	是	否	否	Chinses in fall, and English in spring	
	GE6003	实验室安全教育	Laboratory Safety Education	0.5	中文	春秋季	是	否	否	“好大学在线”慕课学习	
	GE6011	学术报告会	Academic Lectures	1	中文	春秋季	是	否	否		
专业基础课 Program Core Courses	MATH6004	计算方法	Numerical Analysis	3	中英并行开班	春秋季	是	是	是		最少1门、最低3分
	MATH6005	矩阵理论	Matrix Theory	3	中英并行开班	春秋季	是	是	是		最少1门、最低3分
	MATH6015	最优化方法	Optimization Method	3	中英并行开班	春秋季	是	是	是		最少1门、最低3分
	STAT6001	基础数理统计	Fundamental Mathematical Statistics	3	中英并行开班	春秋季	是	是	是		最少1门、最低3分
	ENVR7101H	高等环境化学	Advanced Environmental Chemistry	3	英文	秋季	否	是	否		
	ENVR7110	环境能源技术	Environmental Energy Technology	2	英文	秋季	否	是	否		
	ENVR7102H	环境管理	Environmental Management	2	英文	春季	否	是	否		
专业前沿课 Program Frontier Courses	ENVR7103	产业生态学	Industrial Ecology	2	英文	秋季	否	否	否		
	ENVR8101	环境科学与工程进展	Advances in Environmental Science and Engineering	2	英文	秋季	是	否	否		
	ENVR7105	可持续能源技术	Technologies for Sustainable Energy	2	英文	春季	否	否	否		
专业选修课 Program Elective Courses	ENVR7104	环境经济学	Environmental Economics	2	英文	秋季	否	否	否		
	ENVR7111	环境催化原理与应用	The Principles and Application of Environmental Catalysis	2	英文	春季	否	否	否		