上海交通大学研究生课程开设申请表

New Graduate Course Application Form, SJTU

课程基本信息 Basic Information						
(山文 Chinasa) 全屋原始后理						
*课程名称 Course Name	(英文 English) Principles of Metal Corrosion					
*学分 Credits	2		*学时 Teaching Hours	32 (1 学分≥16 课时)		
*开课学期 Semester	春季学期 Spring		*是否跨学期 Cross-semester?	否 No跨 Spanning over个学期Semesters (含夏季学期)。		
*课程性质 Course Category	专业课 Specialized Course		*课程分类 Course Type	全日制课程 For full-time students		
*授课语言 Instruction Language	中文 Chinese		主要授课方式 Teaching Method	课堂教学 In class teaching		
*成绩类型 Grade	等第制 Letter grading		主要考核方式 Exam Method	论文 Essay		
*开课院系 School	材料科学与工程学院					
所属学科 Subject	金属腐蚀学					
负责教师	姓名 Name	工号 ID	单位 School	联系方式 E-mail		
Person in charge	蒋海燕		上海交通大学材料学	院 jianghy@sjtu.edu.cn		
		课程扩展作	言息 Extended Informa	tion		
*课程简介 (中文) Course Description	(分段概述课程定位、教学目标、主要内容、先修课程等;不少于 200 字。) 金属腐蚀原理课程是针对材料科学与工程学院研究生开设的专业选修课程。本课程以物理化学、无机化学及金属学原理为基础,重点讲授金属高温氧化腐蚀、高温液态金属腐蚀和电化学腐蚀。本课程通过系统地阐述金属腐蚀的基本规律和作用机理,金属腐蚀控制原理和防蚀技术,以及介绍金属腐蚀领域最新的研究进展,使学生能够利用腐蚀原理分析腐蚀过程并提出相应的防护方法。本课程涉及的学科范围广、应用性强,并具有较广泛的专业适用性。本课程紧扣国家发展战略,以金属工业中危害十分严重的金属腐蚀问题为切入点,目标是通过学习,使学生对金属腐蚀与防护有一个较全面的了解,并对金属腐蚀的相关原理及在国民经济和新材料科学技术发展中的作用有一基本认识。					
*课程简介 (English) Course Description	(须与中文一致,翻译请力求信达雅。) This course is professional elective for graduate students majoring in materials science. Based on the principles of physical chemistry, inorganic chemistry and metallurgy, this course focuses on the high-temperature oxidation corrosion, high-temperature liquid metal corrosion and electrochemical corrosion of metals. This course systematically describes the basic law and mechanism of metal corrosion, metal corrosion control principle and anti-corrosion technology, and introduces the latest research progress in the field of metal corrosion, so that students can analyze the corrosion process and propose protection methods. This course involves a wide range of subjects and has the characteristics of strong applicability and wide applicability. This course is closely related to the national development strategy, and takes the severe metal corrosion in industry as the starting point, through which students can have a comprehensive understanding of metal corrosion and protection,					

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		rstanding of the metal corrosional economy and new material sci				
		内容:章节、主要内容、课时数、				
	章节	主要内容	课时数	教学方式		
*教学大纲	1. 绪论	金属腐蚀的概论	2	课堂教学		
(中文)	2. 液态金属腐蚀	液态金属腐蚀机制	6	课堂教学		
Syllabus	3. 高温氧化腐蚀	金属高温氧化机制	6	课堂教学		
5 y Hao as	4. 电化学腐蚀	电化学腐蚀机制	4	课堂教学		
	5. 全面腐蚀和局部腐蚀		4	课堂教学		
	6. 腐蚀控制技术	金属腐蚀控制技术介绍	10	课堂教学		
	(须					
	Chapter	Contents	Teaching Hours	Teaching Method		
	1. Introduction	Introduction of metal corrosion	2	In class teaching		
	2. Liquid Metal	Mechanisms of liquid metal	6	In class teaching		
	Corrosion	corrosion	U	T 1		
*教学大纲 (English)	3. High Temperature Oxidation Corrosion 4. Electrochemical	Mechanisms of high temperature oxidation corrosion Mechanisms of electrochemical	6	In class teaching		
Syllabus	4. Electrochemical Corrosion	corrosion	4	In class teaching		
	5. Total and Part Corrosion	Introduction of total and part Corrosion	4	In class teaching		
	6. Corrosion Control	Introduction of corrosion control	10	In class teaching		
	Technology	technology	10	_		
*课程要求 (中文) Requirements	(课程考核方式、考核标准等;不少于50字) 课程考核方式:论文。 考核标准: 1.90~100分:观点明确,论据充分,具有一定的学术价值或者应用价值。 2.80~89分:观点正确,论据有力,文章具一定的创新性。 3.70~79分:观点正确,论据较为充分,具有一定价值。 4.60~69分:观点基本正确,论据较为充实,理论结合实际较差。 5.59分以下:基本观点不正确,论据贫乏,论文字数少于3000字 6.0分(作弊):重复率超过本论文篇幅的1/3以上者则视为作弊,课程论文成绩以零分记载,标记为"作弊"。					
*课程要求 (English) Requirements	(须与中文一致,翻译请力求信达雅。) Exam Method: Essay. Assessment criteria: 1. 90-100 points: The point of view is clear, the argument is sufficient, and the essay has a certain academic value or application value. 2. 80-89 points: The point of view is correct, the argument is powerful, and the essay is relatively innovative. 3. 70-79 points: The point of view is correct, the argument is relatively sufficient, and the essay has a certain value. 4. 60-69 points: The point of view is basically correct, the argument is relatively sufficient, and the combination of theory with practice is poor. 5. Below 59: The basic point of view is incorrect, the argument is poor, and the number of words in the essay is less than 3000. 6. 0 points (cheating): If the repetition rate exceeds 1/3 of the length of this essay, it will be					
课程资源	regarded as cheating, and the essay scores are recorded with zero points, marked as "cheating". (教材、教参、网站资料等。)					
(中文)	D. J. Young 《High temperature oxidation and corrosion of metals 》; Edward Ghali					
Resources	D. J. Toung Wingh tell	inperature oxidation and corrosic	n or metal	5 //, Lawara Onan		

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	《Corrosion resistance of aluminum and magnesium alloys》
课程资源 (English) Resources	(须与中文一致,请力求信达雅。) D. J. Young 《High temperature oxidation and corrosion of metals 》; Edward Ghali 《Corrosion resistance of aluminum and magnesium alloys》
备注 Note	

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