

Information Form for SJTU Graduate Profession Courses

Basic Information				
* Course Name	Chinese			
	English Eco-materialogy			
* Credits	2	* Teaching Hours	32 1 =16	
* Semester	Spring	* Cross-semester?	No	Spanning over Semesters
* Course Type	Program Elective Course	* Course Type	For full-time students	
* Course Category	Specialized Course	Targeting Students	Master Level	
* Instruction Language	Chinese	Teaching Method	In class teaching	
* Grade	Letter grading	Exam Method	Essay	
* School	School of Materials Science and Engineering			
Subject				
Person in charge	Name	ID	School	E-mail
				dshu@sjtu.edu.cn
Extended Information				
* () Course Description	200 LCA			
* English Course Description	<p>Eco-materialogy is an interdiscipline about the interaction between materials, material cycling process and ecological environment. Its purpose is to minimize the load of materials on environment in the whole life cycle while meeting the performance requirement of materials. This course starts from discussing the increasingly serious environmental problems faced by traditional materials industry, learning the origin, basic conception and significance of eco-materials, understanding and mastering the life cycle assessment (LCA) method and its application in materials. On this basis, we focus on how to improve the environmental compatibility of steel, non-ferrous metals, ceramics, polymers and other traditional materials in the aspects of eco-design, eco-processing and recycling. Besides, the rapid development of new functional eco-materials, such as metal-air battery materials, photocatalysis materials, sewage purification materials, air purification materials, noise control materials, biodegradable materials, will also be discussed in this course.</p>			

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Syllabus

