

Course Information					
Course Code	MT419	* Credit Hours	32	* Credits	2
* Course Name	Laser processing technology for materials				
(Course Type)					
(Language of Instruction)	Chinese				
* School	School of Materials Science and Engineering				
Prerequisite					
Teacher			(Course Webpage)		
* Description					
* Description	<p>Laser processing technology, due to its advancement, high efficiency and intelligentization, has been considered as one advanced processing technology with the highest development potential in the current century. In comparison with traditional materials processing methods, laser processing technology is characterized by non-contacting, no pollution, low noise and high efficiency. Laser processing technology has been widely applied in the materials processing such as welding, cutting, engraving, surface cladding, alloying, hardening and peening in the industry sectors of aeronautics and astronautics, shipbuilding, modern automobile, etc. Meanwhile laser can be also applied for microfabrication, amorphization, and even nano-materials preparation. This course tries to let students know the mechanics of laser generating, basic methods, principles and technical features of laser application in materials processing through lectures and experimental demonstrations, and furthermore let them be able to consider the application of laser processing technology for materials manufacturing and processing engineering. The course will also prompt the application of laser processing methods in the production and manufacture field in China.</p>				

course syllabus

<p>* (Learning Outcomes)</p>	<p>1 1.1 2 1.1 3.1 3 8.3 3.1 4 5 2.1</p>
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<p>* relationship between learning outcomes and graduation requirements</p>				
	1	1.1	1 2	
	2	2.1	5	
	3 /	3.1	2 3	
	8	8.3	4	

<p>* (Class Schedule & Requirements)</p>						
	1	2	/			
	2	3				
	3	3				
	4	2	/			
	5	3				
	6	3				
	7	2				
	8	2				

	9	1	/		
	10	1.5			
	11	2	/		
	12	1.5	/		
	13	1	/		
	14	1	/		
	15	2		/	
		2	/		
* (Grading)	70	20%	10		
* (Textbooks & Other Materials)	1		2006		
	2		2005		
	3		2004		
	4		2007		
More					
Notes					

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2 *

3 300-500