

课程大纲 COURSE SYLLABUS

1.	课程代码/名称 Course Code/Title	BME5002 先进生物材料 Advanced Biomaterials
2.	课程性质 Compulsory/Elective	专业必修课
3.	课程学分/学时 Course Credit/Hours	3 学分/48 学时 3 Credit/48Hours
4.	授课语言 Teaching Language	英语/English
5.	授课教师 Instructor(s)	唐斌/Bin Tang
6.	先修要求 Pre-requisites	无/NA
7.	教学目标 Course Objectives	
	Biomaterial is a class of high technology material for diagnosis, repairing and enhancement of the human tissues and organs. The students enrolled in Advanced Materials course are expected to receive sufficient academic training on either Biomedical Engineering or Materials Science and Engineering field. This course is an elective major course. By lecture, group discussion and oral presentation led by the professor, the students will focus on the studies on cut-edge biomaterials research, e.g. in situ tissue engineering, 3d-printing of customized biomaterials, which make them well preparation for biomaterials related research.	
8.	教学方法 Teaching Methods	
	课堂讲授+讨论+答辩	
9.	教学内容 Course Contents	
	Section 1	Week 1-3 General Introduction to Biomaterials
	Section 2	Week 4-9 Selected Topics in Tissue Engineering
	Section 3	Week 10-14 Select Topics in Advanced Bio-imaging Materials
	Section 4	Week 15-18 Select Topics in Precise Medicine of Biomaterials
	Section 5	
	Section 6	
	Section 7	
	Section 8	
	Section 9	
	Section 10	
	
10.	课程考核 Course Assessment	
	平时作业 30% 课程报告 30% 期末报告 40%	
11.	教材及其它参考资料 Textbook and Supplementary Readings	

Text Book: Biomaterials Science, 3rd Edition, ISBN: 9780123746269, 2012.

References: Notes handed out by lectures