

《科技创新（植物科学与技术）》课程教学大纲

课程基本信息 (Course Information)					
*课程代码 (Course Code)	AB026	*学时 (Credit Hours)	48	*学分 (Credits)	3
*课程名称 (Course Name)	(中文) 科技创新 (植物科学与技术)				
	(英文) Innovation in Plant Science and Biotechnology				
课程性质 (Course Type)	专业实践类必修课				
授课对象 (Audience)	本科生(Undergraduate)				
授课语言 (Language of Instruction)	中文(Chinese)				
*开课院系 (School)	农业与生物学院 (School of agriculture and biology)				
先修课程 (Prerequisite)	植物学,植物生理学,生物化学,细胞生物学,分子生物学(Botany, plant physiology, biochemistry, cell biology, molecular biology)				
授课教师 (Instructor)	张屹东(Zhang Yidong)		课程网址 (Course Webpage)		
*课程简介 (Description)	<p>(中文 300-500 字, 含课程性质、主要教学内容、课程教学目标等)</p> <p>科技创新是一门综合实验实践类课程。课程要求学生根据自己的科研兴趣或科研目标提出科研课题或在指导老师的帮助下提出科学问题, 然后选择实验室进行科学创新实验实践活动。教学目标主要让学生从机制上探讨植物学的有关科学问题, 基本掌握植物学研究的科学方法, 认识到植物与环境、植物与植物、植物与微生物等之间存在相互影响和联系, 培养学生具有揭示和阐明植物高产、优质、高效的生产基础理论知识和实践能力, 对于学生以后的基本科研素养及能力的提高有积极的作用。</p>				
*课程简介 (Description)	<p>(英文 300-500 字)</p> <p>Innovation in Plant Biotechnology is a comprehensive experiment and practical course. The course requires students to put forward scientific research projects or scientific questions with the help of instructors according to their own scientific research interests or objectives, and then choose laboratories for scientific innovation experiments. The teaching objectives are mainly to enable students to explore the relevant scientific problems of Botany from the perspective of mechanism, to grasp the scientific methods of botanical research, to realize the mutual influence and connection between plants and environment, plants and plants, plants and microorganisms. The course trains students to reveal and clarify the basic theoretical knowledge and practical ability of plant production with high yield, high quality and high efficiency, which will play a positive role in improving students' basic scientific research literacy and ability in the future.</p>				
课程教学大纲 (course syllabus)					

*学习目标(Learning Outcomes)	1. 了解并认识植物科学研究方法 (A3) (Learning plant science research methods) 2. 掌握植物研究的基本技术 (A5.4) (Master the basic technology of plant research) 3. 通过课程实践, 培育学生认识和发现问题的能力 (B2, C2) (Cultivating students' ability to recognize and discover problems through curriculum practice) 4. 通过项目实践, 培育学生合作和解决问题的能力 (A5.3, B3, C1) (Cultivate students' cooperation and problem solving skills through project practice.)					
*教学内容、进度安排及要求 (Class Schedule & Requirements)	教学内容	学时	教学方式	作业及要求	基本要求	考查方式
	讲解科技创新实践课的重要性及要求, 请同学们联系指导老师, 并尽快确定实验题目(Explain the importance and requirement of the course. contact the instructor and confirm the experiment topic as soon as possible.)	2	理论教学			
	进入各指导教师实验室, 按一定实验目标进行科学实验训练, 掌握一定的实验技术及理论知识(Enter each instructor's laboratory, carry on scientific experiment training according to certain experiment goal, master certain experiment technology and theory knowledge)	42	实验操作			指导教师考核
	就实验内容及目标进行综合考核 (Comprehensive examination of the contents and objectives of the project experiments.)	4	展示汇报			综合考核
*考核方式 (Grading)	(成绩构成) 考核成绩 100% (Comprehensive assessment results 100%) 论文报告 70%; 汇报表现 30%。					
*教材或参考资料 (Textbooks & Other Materials)	教材无(none) 参考资料: 所有植物学研究相关的期刊杂志。(Reference: all botanical research related journals.)					
其它 (More)	无(none)					
备注 (Notes)	无(none)					

备注说明:

1. 带*内容为必填项。

2. 课程简介字数为 300-500 字；课程大纲以表述清楚教学安排为宜，字数不限。