

## 《食品安全风险评估》课程教学大纲

课程基本信息 (Course Information)					
课程代码 (Course Code)	FS329	*学时 (Credit Hours)	32	*学分 (Credits)	2
*课程名称 (Course Name)	(中文) 食品安全风险评估 (英文) Risk Assessment on Food Safety				
课程性质 (Course Type)	专业选修课 Major Selective Course				
授课对象 (Target Audience)	食品科学与工程相关专业学生 Food science and technology and related majors				
授课语言 (Language of Instruction)	中英双语 Bilingual Chinese and English				
*开课院系 (School)	农业与生物学院 School of Agriculture and Biology				
先修课程 (Prerequisite)	生物学、化学、食品毒理学 Biology, Chemistry and Food Toxicology				
授课教师 (Instructor)	施春雷 Dr. Chunlei Shi	课程网址 (Course Webpage)			
*课程简介 (Description)	此课程是食品科学与工程及相关专业的专业选修课。 “食品安全风险评估”是以分析评估食品和食品添加剂中生物性、化学性和物理性危害对人体健康和食品贸易可能造成的不良影响为主要内容的学科。通过本课程的学习，使学生能理性地看待各种食品安全危害因子，掌握危害因子与食品之间的关系，学会采取相应的预防和补救措施来控制食品安全事故的发生，或者将事故的影响降到最低，以胜任今后在政府监管部门、食品企业的管理和研发工作。				
*课程简介 (Description)	This course is a selective course for food science and technology and related majors. Risk assessment on Food safety is the main content of the analysis and evaluation of the potential adverse effects of biological, chemical and physical hazards on human health and food trade in food and food additives. Through learning this course, students can rationally understand all sorts of food safety hazards, grasp the relationship between risk factors and food, learn to take appropriate preventive and remedial measures to control the occurrence of food safety incidents, or to minimize the effects of the accident, to perform in the future government agency and food industry.				

课程教学大纲 (Course Syllabus)

<p>*学习目标 (Learning Outcomes)</p>	<p>1. 了解食品安全风险评估的基本原理和应用 (A3) To Understand the basic principle and application of food safety risk assessment (A3)</p> <p>2. 了解食品安全风险评估的基本概念和一般流程 (A5.1, A5.4) To understand the basic concept of food safety risk assessment and the general process (A5.1, A5.4)</p> <p>3. 通过课程实践, 培育认识和发现问题的能力 (B2, C2) 和团队协作解决问题的能力 (A5.3, B3, C1) Through the course practice, to foster the ability to understand and find problems (B2, C2) and the team cooperation ability to solve problems (A5.3, B3, C1)</p>
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	教学内容	学时	教学方式	作业及要求	基本要求	考查方式
<p>*教学内容 进度安排及要求 (Class Schedule &amp; Requirement s)</p>	<p>风险评估概述 General Introduction to Risk Assessment</p>	<p>2 学时 2 credit hours</p>	<p>课堂教学 Classroom Teaching</p>	<p>随堂考查 Quiz</p>	<p>1. 风险是什么? 2. 风险与危害的区别 3. 风险评估的定义 4. 风险评估的功能 5. 学习风险评估的必要性 1. What is risk? 2. Risk vs. Hazard 3. What is risk assessment? 4. What does risk assessment serve for? 5. Why should we learn risk assessment?</p>	<p>随堂考查 Quiz</p>

	<p>食品安全风险评估原理 Principles of Risk Assessment on Food Safety</p>	<p>2 学时 2 credit hours</p>	<p>课堂教学 Classroom Teaching</p>	<p>随堂考查 Quiz</p>	<p>1. 食品安全风险评估基本程序 2. 风险评估基本原理 3. 风险评估的主体 1. Basic procedure of Risk assessment 2. General principles of Risk assessment 3. Main body of Risk assessment</p>	<p>随堂考查 Quiz</p>
	<p>危害识别 Hazard Identification</p>	<p>6 学时 6 credit hours</p>	<p>课堂教学 Classroom Teaching</p>	<p>随堂考查 Quiz</p>	<p>1. 食品中的主要危害因子 2. 食品中的主要生物性危害因子 3. 如何识别不同食品中的主要危害因子（建立暂定优先组合） 1. What are the main hazards in food? 2. What are the main biological hazards in food? 3. How to identify those hazards in different food commodities?</p>	<p>随堂考查 Quiz</p>
	<p>危害特征描述 Hazard Characterization</p>	<p>6 学时 6 credit hours</p>	<p>课堂教学 Classroom Teaching</p>	<p>随堂考查 Quiz</p>	<p>1. 危害特征描述的主要内容 2. 如何理解剂量—反应关系 3. 如何建立特定危害物的剂量—反应关系 1. What is the main content of hazard</p>	<p>随堂考查 Quiz</p>

					<p>characterization?</p> <p>2. How to understand dose-response relationship?</p> <p>3. How to establish dose-response relationship for a certain hazard?</p>	
	<p>暴露评估 Exposure Assessment</p>	<p>4 学时 4 credit hours</p>	<p>课堂教学 Classroom Teaching</p>	<p>随堂考查 Quiz</p>	<p>1. 暴露评估的必要性</p> <p>2. 如何进行暴露评估</p> <p>1. Why should exposure assessment?</p> <p>2. How to exposure assessment?</p>	<p>随堂考查 Quiz</p>
	<p>风险描述 Risk Characterization</p>	<p>4 学时 4 credit hours</p>	<p>课堂教学 Classroom Teaching</p>	<p>随堂考查 Quiz</p>	<p>1. 风险评估过程的综合回顾</p> <p>2. 风险描述的功能</p> <p>3. 不确定分析</p> <p>1. Review of Risk Assessment Process</p> <p>2. What Risk Characterization does?</p> <p>3. Uncertainty analysis</p>	<p>随堂考查 Quiz</p>
	<p>风险评估的应用与决策 Application and Decision-making of Risk Assessment</p>	<p>8 学时 8 credit hours</p>	<p>小组讨论 Group Discussion</p>	<p>课堂汇报</p>	<p>1. 食品加工过程的风险控制</p> <p>2. 食品安全目标</p> <p>3. 食品安全标准</p> <p>4. 健康指导值</p> <p>1. The risk control during food processing process</p>	<p>课堂汇报 Class Presentation</p>

					2. Food safety objectives 3. Food safety standards 4. Health-based guidance values
*考核方式 (Grading)	<p>最终成绩由平时成绩、课堂汇报、风险评估报告组合而成。各部分占比如下：  平时成绩：20%。主要考核出勤情况、课堂各项活动的参与度。  课堂汇报：30%。主要考核对知识点的掌握程度，以及分析解决问题的能力 and 口头表达能力。  风险评估报告：50%。主要考核对本门课程基本概念、基础理论和评价方法的综合应用情况。  Final grade is determined by regular grade, class presentation, and risk assessment report:  Regular grade: 20%. Assessed by attendance, participation of class activities.  Class presentation: 30%. Assessed by knowledge familiarity degree, problem solving ability and oral communication ability.  Risk assessment report: 50%. Assessed by comprehension of basic theory and method of this course and team cooperation ability.</p>				
*教材或参考资料 (Textbooks & Other Materials)	<p>教材 Textbook:  1. 食品中化学物风险评估原则和方法, 主译刘兆平, 李凤琴, 贾旭东, 第一主编非我校教师, 人民卫生出版社, 2012年8月, 第1版, ISBN 978-7-117-15971-5, 使用3届, 中文教材, 非国家级规划教材。  Principles and Methods for the Risk Assessment of Chemicals in Food, Liu Zhaoping, Li Fengqin, Jia Xudong, People's Medical Publishing House, 2012, 1<sup>st</sup> edn, ISBN 978-7-117-15971-5.  参考书 Reference books:  1. 食品安全风险评估, 石阶平主编. 中国农业大学出版社, 2010, 第1版, ISBN 978-7-5655-0004-6.  Risk Assessment on Food Safety, Shi Jieping, China Agricultural University Press, 2010, 1<sup>st</sup> edn, ISBN 978-7-5655-0004-6.  2. 食品中微生物风险评估, 福赛思著, 石阶平等译, 中国农业大学出版社, 2007, 第1版, ISBN 978-7-81117-172-3.  The Microbiological Risk Assessment of Food, Stephen J Forsythe, China Agricultural University Press, 2007, 1<sup>st</sup> edn, ISBN 978-7-81117-172-3.</p>				
其它 (More)					
备注 (Notes)					

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。