

Southwest University

Graduate Course Syllabus

Course Unit: Food College

Course No.	1108320021		Course	Special Topic of Food Processing						
Course category (√)	Compulsory courses (√) Elective courses ()	Credit hour	2	Total class hours	40	Lecture hours	30	Discussion Hours	10	Experiment hours
Lecturer	Zeng Fankun	Job title Degree	Professor Master degree		Specialties			Food Processing		
Range of application by majors: agricultural products processing and storage engineering, food science.										
Prerequisite courses:										
Teaching objectives and requirements: These courses, teaching lectures, discussions, etc. will make students having a certain understanding on the development status & trends of food processing at domestic and overseas, and be familiar with the research fields of food processing, and master the new technical principles, development process, characteristics and applications during the food processing, and then have a further understanding and be familiar with the principles and new technologies of the food processing, as well as the food processing research methods.										
Teaching methods and examination methods (it should be conducive to cultivate graduates' innovative thinking and innovation ability): The lecture will be the main part in the teaching methods, carry out the classroom discussion on 2 to 3 aspects according to the source of students and students' majors, while some new technologies or methods in food processing will be applied as the exploratory experiments. The examination method combines the written test and the discussion.										

Course content and course hours allocation

The total course hours are 40 hours, 30 hours for lectures, 10 hours for discussion, no time for experiment.

The first special topic: the domestic and foreign food processing status and development trends (6 hours)

The second special topic: the modern food concept and research fields (4 hours)

The third special topic: the construction stage brief and preparation requirements of feasibility study report for food project (4 hours)

The fourth special topic: the new technology of food sterilization - ultra-high-pressure sterilization, microwave sterilization, water activity control and other principles & applications (6 hours)

The fifth special topic: the new food separation and concentration technology - supercritical extraction, membrane separation technology principle and application (6 hours)

The sixth special topic: the aseptic filling and new packaging materials and technology principles & applications (4 hours)

The seventh special topic: other high-technologies - low temperature freeze crushing, microcapsule technology principles and applications (6 hours)

The eighth special topic: citrus or mustard's processing and comprehensive utilization of the research status (4 hours)

(The discussion hours are included in the above course hours)

(Please add more pages if this page is insufficient)

The Catalog for main reference book (periodicals):

S.N.	Author	Books and Periodicals' name	Press
1	Gao Fucheng etc.	High – Tech of Modern Food Engineering	China Light Industry Press
2	Chen Wenpeng etc.	The physical principles of food preservation	Zhengyan Press
3	Gao Kongrong etc.	Food Separation Technology	South China University of Technology Press
4	Liu Zhongdong	Application of Microwave Technology in Food Industry	China Light Industry Press
5	Ma Haile	Supercritical Fluid Extraction of Biological Resources	安徽科学技术出版社 Anhui Science and Technology Press

6	Zeng Xiaoqing	Principle and Application of HACCP	South China University of Technology Press
7		Food and Fermentation Industries	
8		Food science	
9		Food Science and Technology	
10		J. of Food Science	
11		J. of Food Engineering	

Review Comments of School (Institute, Center):

Signature

(Date)

Review Comments of Student Committee:

Signature

(Date)

Review Comments of Graduate School

Signature

(Date)