

Course Information

Course Title	Principles of Food Science
Course Prefix, Num. and Title	AGRI 1329
Division	Life Sciences: Agriculture
Department	Agriculture
Course Type	Academic General Education Course (from ACGM, but not WCJC Core)
Course Catalog Description	Biological and scientific aspects of modern industrial food supply systems. Food classification, modern processing, nutritional quality, and quality control.
Pre-Requisites	None
Co-Requisites	None

Semester Credit Hours

Total Semester Credit Hours (SCH): Lecture Hours:	3:3:0
Lab/Other Hours	
Equated Pay Hours	3
Lab/Other Hours Breakdown: Lab Hours	Enter Lab Hours Here.
Lab/Other Hours Breakdown: Clinical Hours	Enter Clinical Hours Here.
Lab/Other Hours Breakdown: Practicum Hours	Enter Practicum Hours Here.
Other Hours Breakdown	List Total Lab/Other Hours Here.

Approval Signatures

Title	Signature	Date
Prepared by:		
Department Head:		
Division Chair:		
Dean/VPI:		
Approved by CIR:		

Additional Course Information

Topical Outline: Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, and clinical or other non-lecture instruction).

Topical Outline	Dedicated Instructional Time
Overview of the Food Industry, Chemistry of Foods, Nutrition and Digestion	Two weeks
Quality Factors in Food Avoiding Food Deterioration: Heat Preservation And Processing, Cold Preservation and Processing,	Two weeks
Food Dehydration and Concentration Processing Foods with Radiant and Electrical Energy,	One week
Fermentation in Food Production, Dairy Products Meat Production, Grading and Tenderness, Meat	Two weeks
Preparation and Processed Meats	One week
Poultry Production, Egg Production	One week
Fish and Shellfish as Food Sources	One week
Fats and Oils in Food Products; Grains and Legumes in Cereal and Baking; Processing Wheat, Corn and Other Grains	Two weeks
Fruits and Vegetables; Beverage Production; Food Packaging	One week
Wastewater and Food Processing; Food Safety Governmental Regulation and Nutritional Labeling	One week
Understanding Food Additives; Dietary Guidelines For Americans	Two weeks

Course Learning Outcomes:

Learning Outcomes – Upon successful completion of this course, students will:

1. Identify the principles of food science related to food production, quality, safety, nutrition, and distribution.
2. Describe common and emerging technologies in food science.
3. Explain how engineering, microbiology, and chemistry are applied in food production and processing systems.
4. Describe food safety procedures in U.S. production systems.
5. Demonstrate appropriate food handling/food safety procedures.
6. Explain nutrient composition and the link between nutrition and health.
7. Examine the dynamics of global food supply.

Methods of Assessment:

Lecture and exams.

Required text(s), optional text(s) and/or materials to be supplied by the student:

Current Edition: Introduction to Food Science. 2003. Delmar/Thompson learning, Albany, NY 12212. ISBN 076681314-2 (optional)

Suggested Course Maximum: 24

List any specific or physical requirements beyond a typical classroom required to teach the course.

The lecture room should include sufficient dry erase (or chalk) board for notes and illustrations, a computer with internet access and overhead computer projector (for instructor’s use) and a traditional overhead projector.

Course Requirements/Grading System: Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course.

Students are required to read the textbook chapters assigned to them. Throughout the semester, the students have 4 major lecture exams, and assignments

Evaluative Procedures:

Final grade is determined by 4 major exams and class attendance/participation, each counting as 1/5 (20%) of the total grade.

The grade classifications as outlined in the College Catalog are employed:

- A – 90 – 100% Excellent
- B – 80 – 89% Good
- C – 70 – 79% Average
- D – 60 – 69% Poor
- F – Below 60% Failure
- W – Withdrawn

Curriculum Checklist:

- Administrative General Education Course** (from ACGM, but not in WCJC Core) – No additional documents needed.
- Administrative WCJC Core Course.** Attach the Core Curriculum Review Forms
 - Critical Thinking
 - Communication
 - Empirical & Quantitative Skills
 - Teamwork
 - Social Responsibility
 - Personal Responsibility
- WECM Course** -If needed, revise the Program SCANS Matrix and Competencies Checklist