



Purpose: It is the intention of this Administrative-Master Syllabus to provide a general description of the course, outline the required elements of the course and to lay the foundation for course assessment for the improvement of student learning, as specified by the faculty of Wharton County Junior College, regardless of who teaches the course, the timeframe by which it is instructed, or the instructional method by which the course is delivered. It is not intended to restrict the manner by which an individual faculty member teaches the course but to be an administrative tool to aid in the improvement of instruction.

Course Title – Principles of Food Science

Course Prefix and Number – AGRI 1329

Department - Agriculture

Division – Life and Physical Sciences

Course Type: (check one)

- Academic General Education Course (from ACGM – but not in WCJC Core)
- Academic WCJC Core Course
- WECM course (This course is a Special Topics or Unique Needs Course: Y or N)

Semester Credit Hours # : Lecture Hours # : Lab/Other Hours # 3:3:0

Equated Pay hours for course - 3

Course Catalog Description - Biological and scientific aspects of modern industrial food supply systems. Food classification, modern processing, nutritional quality, and quality control.

Prerequisites/Co-requisites - None

List Lab/ Other Hours
Lab Hours
Clinical Hours
Practicum Hours
Other (list)

Prepared by Sean Amestoy

Date 1/30/15

Reviewed by Department Head Sean Amestoy

Date 1/30/15

Accuracy Verified by Division Chair Kevin Dees

Date 1-30-15

Approved by Dean or Vice President of Instruction

Date



I. Topical Outline – Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, 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	Two weeks
Avoiding Food Deterioration: Heat Preservation And Processing, Cold Preservation and Processing, Food Dehydration and Concentration	One week
Processing Foods with Radiant and Electrical Energy, Fermentation in Food Production, Dairy Products	Two weeks
Meat Production, Grading and Tenderness, Meat 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	One week
Governmental Regulation and Nutritional Labeling; Understanding Food Additives; Dietary Guidelines For Americans	Two weeks

II. Course Learning Outcomes

Learning Outcomes	Methods of Assessment
<p>Upon successful completion of this course, students will:</p> <ol style="list-style-type: none"> 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. 	<p>Lecture and exams.</p>

III. Required Text(s), Optional Text(s) and/or Materials to be Supplied by Student.

Current Edition: Introduction to Food Science. 2003. Delmar/Thompson learning, Albany, NY 12212.

ISBN

076681314-2 (optional)

IV. Suggested Course Maximum - 24

V. List any specific spatial 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.

VI. 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 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

VII. Curriculum Checklist

- **Academic General Education Course** (from ACGM – but not in WCJC Core)
No additional documentation needed

- **Academic WCJC Core Course**
Attach the Core Curriculum Checklist, including the following:

- Basic Intellectual Competencies
- Perspectives
- Exemplary Educational Objectives

- **WECM Courses**
If needed, revise the Program SCANS Matrix & Competencies Checklist.