



PRINCIPLES OF FOOD SCIENCE

AGRI 1329

Course Syllabus

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Course Description:

Biological and scientific aspects of modern industrial food supply systems. Food classification, modern processing, and quality control.

Textbook:

Principles of Food Science, 4th Edition, Janet D. Ward and Larry Ward, G-W Publishers.

Course Goals:

Identify the role of food science and technology as they relate to the U.S. food and fiber industry. The student will develop an understanding of world food production, principles of consumerism, the importance of food safety and procedures in processing, packaging, and storage of foods, and career opportunities in the food science and technology field.

General Course Requirements:

Class attendance is required. If you have more than three unexcused absences, you should consult with me about your grade. Anyone who wishes to withdraw from class must take the responsibility to formally drop with the Registrar; otherwise a failing grade will be given.

Class Hours

MW 11:00-12:20

Office Hours

MW 7:30-8:00, 1:00-1:30

TR 7:30-8:00, 10:00-11:00, 1:00-3:30

Appointments with me may be scheduled at other times. Call for an appointment at (903) 434-8177, Office AGC 110. E-mail address: chenry@ntcc.edu

Learning Outcomes

Upon successful completion of this course, students will:

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

Grading:

Grades will be computed as follows:

| | |
|----------------------|-----|
| (3) Exams: | 70% |
| Class Participation: | 10% |
| Project: | 10% |
| Assignments/Quizzes | 10% |

The grading scale below will be used to determine your final grade.

| Points | grade |
|-----------|-------|
| 90-100 | A |
| 80- 89 | B |
| 70- 79 | C |
| 60- 69 | D |
| BELOW 59% | F |

Exams:

There will be 3 exams with each exam counting 70% of your overall grade.

Class Participation:

Class participation is based on attendance, classroom discussion, and participation.

Project:

Each student will be responsible for making a hot sauce. They will have to identify and measure all ingredients used and prepare the hot sauce in class. We will conduct a taste test to identify the best hot sauce. You will be graded on effort, contribution, and taste.

ADA Statement

It is the policy of Northeast Texas Community College to provide reasonable accommodations for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to arrange an appointment with a College counselor to obtain a Request for Accommodations form. For more information, please refer to the Northeast Texas Community College Catalog or Student Handbook.

Family Educational Rights And Privacy Act (Ferpa):

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's educational records. These rights transfer to the student when he or she attends a school beyond the high school level. Students to whom the rights have transferred are considered "eligible students." In essence, a parent has no legal right to obtain information concerning the child's college records without the written consent of the student. In compliance with FERPA, information classified as "directory information" may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student's name, permanent address and/or local address, telephone listing, dates of attendance, most recent previous education institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.

Academic Dishonesty:

Cheating is against the Northeast Texas Community College policy. Cheating includes any attempt to defraud, deceive, or mislead the professor in arriving at an honest grade assessment. Plagiarism is a form of cheating that involves presenting as one's own the ideas or work of another.

Violation of the cheating policy may result in a lowered grade of "F" in the course. A grade assigned to a student because of an alleged cheating policy violation may be appealed by the student through the appeals process of the College. See the Student Handbook for details. I recommend that you become familiar with your handbook.

Course Outline:

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|---------|------------------------------|
| Week 1 | Introduction to Food Science |
| Week 2 | Scientific Evaluation |
| Week 3 | Sensory Evaluation |
| Week 4 | Basic Food Chemistry |
| Week 5 | Macronutrients |
| Week 6 | Micronutrients |
| Week 7 | Food Analogs |
| Week 8 | Fermentation |
| Week 9 | Food Safety |
| Week 10 | Thermal Preservation |
| Week 11 | Dehydration |
| Week 12 | Food Packaging |
| Week 13 | Food Mixtures |
| Week 14 | Separation Techniques |
| Week 15 | New Food Products |
| Week 16 | Food Science Careers |