

**MASTER SYLLABUS**

# 2021-2022

A. Academic Division: Health Sciences

B. Discipline: Agriculture Management

C. Course Number and Title: AGRI1010 Agriculture Production, Processing, & Nutrition

D. Course Coordinator: Adam Bode

 Assistant Dean:

Instructor Information:

* Name: Click here to enter text.
* Office Location: Click here to enter text.
* Office Hours: Click here to enter text.
* Phone Number: Click here to enter text.
* E-Mail Address Click here to enter text.

E. Credit Hours: 4

F. Prerequisites: None

G. Syllabus Effective Date: Fall 2021

H. Textbook(s) Title:

*Introduction to Food Science*

* Author: Rick Parker
* Copyright: 2001
* Edition: 1st
* ISBN: 9780766813144
1. Workbooks and/or Lab Manual: None
2. Course Description: An introductory course of how American Agriculturalist produces the food we use in our daily lives. This course examines the production food from farm, the processes that are required to make it to table and influences of consumer choice. This course will include units on food nutrition, quality of food, milk industry, meat industry, poultry production, aquaculture, grain production, vegetable and fruit production, beverage industry, food packaging and preservation.

K. College-Wide Learning Outcomes:

| College-Wide Learning Outcome | Assessments - - How it is met & When it is met |
| --- | --- |
| Communication – Written |  |
| Communication – Speech |  |
| Intercultural Knowledge and Competence |  |
| Critical Thinking | Analytical report of Agricultural Food Production topic by end of term |
| Information Literacy | Analytical report of Agricultural Food Production topic by end of term |
| Quantitative Literacy |  |

L. Course Outcomes and Assessment Methods:

 Upon successful completion of this course, the student shall:

| Outcomes | Assessments – How it is met& When it is met |
| --- | --- |
| 1. Compare spending for food in the United States to that in other countries.
 | Quizzes throughout semesterMid-term and final exam |
| 1. Interpret the USDA Food Pyramid, and evaluate a typical American meal.
 | Quizzes throughout semesterMid-term and final exam |
| 1. Identify quality control during the production of milk, and milk products.
 | Quizzes throughout semesterMid-term and final exam |
| 1. Determine meat yield grades and quality grades of carcasses, and how it affects price for consumer.
 | Quizzes throughout semesterMid-term and final exam |
| 1. Identify factors affecting egg quality.
 | Quizzes throughout semesterMid-term and final exam |
| 1. Compare and Contrast aquaculture to “main-stream” agriculture.
 | Quizzes throughout semesterMid-term and final exam |
| 1. Describe the general composition of grains, legumes, and oilseeds.
 | Quizzes throughout semesterMid-term and final exam |
| 1. Determine factors to consider during harvest, handling and storage of fruits and vegetables.
 | Quizzes throughout semesterMid-term and final exam |
| 1. Evaluate factors that cause food deterioration, and how spoilage can be reduced.
 | Quizzes throughout semesterMid-term and final exam |
| 1. Synthesize a report on Agricultural Food Production from farm to table, that includes production, handling, processing, marketing of the product
 | Quizzes throughout semesterMid-term and final examWritten Report |

M. Topical Timeline (Subject to Change):

|  |  |
| --- | --- |
| **Week** | **Content** |
| 1 | Chapter 1: Overview of Food Science* Food industry by major product lines
* The spending for food in the United States compared to that in other countries
* Trends in production and consumer purchases
 |
| 2 | Chapter 4: Nutrition & Digestion & Chapter 5: Food Composition* Provide caloric content of food
* Protein-deficiency diseases
* Process of Digestion
* Understanding the USDA Food Pyramid
 |
| 3 | Chapter 6: Quality Factors in Foods & Chapter 7: Unit Operations in Food Processing* The influence of color, texture, size, and shape on consumer acceptance
* Factors that can affect food flavor
* Material Handling in the food industry
* Importance of temperature control
* Purpose of Concentrations
 |
|  | Quiz #1 |
| 4 | Chapter 16: Milk* Dairy Industry and Production
* Quality control during the production of Milk
* Dairy Products
 |
| 5 | Chapter 16: Milk* Dairy Products & Processing
* Pasteurization, Homogenization and Fermentation
 |
| 6 | Chapter 17: Meat, Poultry, and Eggs* Raising Cattle, Sheep, Goats and other “Red Meats”
* Production of “Red Meats” and Meat grades
* Wholesale and Retail Meat cuts
* Preparation and Cooking “Red Meats”
 |
| 7 | Chapter 17: Meat, Poultry, and Eggs* Raising Swine
* Production of pork and Pork grades
* Wholesale and Retail Meat cuts
* Preparation and Cooking pork
 |
|  | Quiz #2 |
| 8 | Chapter 17: Meat, Poultry, and Eggs* Raising Poultry
* Production of meat and eggs
* Wholesale and Retail Meat cuts and egg grades
* Preparation and Cooking poultry and eggs
 |
| 9 | Chapter 18: Fish & Shellfish* Fish and Shellfish used for food
* Aquaculture and processing
* Products and by-products
 |
|  | Mid-term Exam |
| 10 | Chapter 19: Cereal Grains, Legumes, and Oilseeds* Grain Operations and Production
* Types of American Grain production
* World Grain Production
* Grain Handling
 |
| 11 | Chapter 19: Cereal Grains, Legumes, and Oilseeds* Grain Use and Processing
* Corn
* Soybean
* Wheat
* Rice
 |
| 12 | Chapter 20: Fruits and Vegetables* Parts of a Plant considered vegetable or a fruit
* Growing fruits and vegetables
* Harvest of fruits and vegetables
* Factors affecting the texture of fruits and vegetables
* Storage of fruits and vegetables
 |
|  | Quiz #3 |
| 13 | Chapter 21: Fats and Oils & Chapter 23: Beverages* Oil Production, extraction, and processing
* Saturated and Unsaturated oils
* Monoglycerides, Diglycerides, and Triglycerides
* Beverage industry
* Fermentations role in beverages
 |
| 14 | Chapter 8: Food Deterioration & Chapter 15: Packaging* After Harvest, What occurs?
* Factors that cause food deterioration
* Shelf life of Food
* Types of Food Packaging
* Packaging with Special Features
 |
|  | Quiz #4 |
| 15 | Chapter 9: Heat, Chapter 10: Cold & Chapter 11: Drying & Dehydration* Preservation achieved by heating
* Time-Temperature control
* Cooling, refrigeration, and freezing
* Changes in food quality that may occur during refrigeration or freezing
* Reasons for dehydrating foods
 |
| 16 | Final Exam |

N. Course Assignments:

Reading Assignments,

Attendance & Participation

Written Report

Quizzes

Mid-term Exam

Final Exam

O. Recommended Grading Scale:

|  |  |  |  |
| --- | --- | --- | --- |
| **NUMERIC** | **GRADE** | **POINTS** | **DEFINITION** |
| 93–100 | A | 4.00 | Superior |
| 90–92 | A- | 3.67 | Superior |
| 87–89 | B+ | 3.33 | Above Average |
| 83–86 | B | 3.00 | Above Average |
| 80–82 | B- | 2.67 | Above Average |
| 77–79 | C+ | 2.33 | Average |
| 73–76 | C | 2.00 | Average |
| 70-72 | C- | 1.67 | Below Average |
| 67–69 | D+ | 1.33 | Below Average |
| 63-66 | D |  1.00 | Below Average |
| 60-62 | D- | 0.67 | Poor |
| 00--59 | F |  0.00 | Failure |

P. Grading and Testing Guidelines:

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Q. Examination Policy:

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R. Class Attendance and Homework Make-Up Policy:

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S. Classroom Expectations:

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T. College Procedures/Policies:

**Important information regarding College Procedures and Policies can be found on the** [**syllabus supplement**](http://catalog.ncstatecollege.edu/mime/download.pdf?catoid=5&ftype=2&foid=3) **located at**

[**http://catalog.ncstatecollege.edu/mime/download.pdf?catoid=5&ftype=2&foid=3**](http://catalog.ncstatecollege.edu/mime/download.pdf?catoid=5&ftype=2&foid=3)