

**Course Information Sheet****Course Name: Food Science****Instructional Material: Principles of Food Science****First Semester:**

Week	Topic
Week 1	Introduction to Food Science
Week 2	Food Safety & Sanitation
Week 3	Macronutrients in Food
Week 4	Micronutrients in Food
Week 5	Water Activity & Moisture Content
Week 6	Food Preservation: Part 1
Week 7	Food Preservation: Part 2
Week 8	Food Chemistry: Acids, Bases, & pH
Week 9	Food Chemistry: Enzymes & Browning Reactions
Week 10	Food Sensory Evaluation
Week 11	Food Labeling & Regulations
Week 12	Culinary Applications: Baking Science
Week 13	Culinary Applications: Meat Science
Week 14	Culinary Applications: Dairy Science
Week 15	Food Processing
Week 16	Product Development: Phase 1
Week 17	Product Development: Phase 2
Week 18	First Semester Review

**Second Semester:**

Week	Topic
Week 19	Food Microbiology
Week 20	Food Safety Management Systems
Week 21	Food Packaging
Week 22	Food Additives
Week 23	Genetically Modified Organisms (GMOs)
Week 24	Sensory Science: Advanced Techniques
Week 25	Food Engineering
Week 26	Food Waste & Sustainability
Week 27	The Global Food Supply Chain
Week 28	Product Development: Phase 3 (Market Research)
Week 29	Product Development: Phase 4 (Pilot Production)
Week 30	Product Development: Phase 5 (Labeling & Costing)
Week 31	Culinary Arts Showcase
Week 32	Careers in Food Science
Week 33	Scientific Writing & Documentation
Week 34	Food Science Fair Project
Week 35	Final Project Presentation
Week 36	Final Portfolio & Course Review