

## **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	The Scientific Evaluation: being objective
Week 4	Food Science An old but new subject
Week 5	Sensory Evaluation
Week 6	Basic Food Chemistry
Week 7	Energy Matter in motion
Week 8	lons: CHarged particles in solution
Week 9	Sugar: the simplest of Carbs
Week 10	Complex Carbohydrates Starches, cellulose, gums and Pectins
Week 11	Lipids Nature's flavor Enhancers
Week 12	Proteins Amino Acids and Peptides
Week 13	Coagulation and Coalescence processes associated with milk protein and cheese
Week 14	Enzymes: the protein catalyst
Week 15	Digestion and Metabolism
Week 16	Digestion and Metabolism
Week 17	First Semester Review
Week 18	Final Exam





## **Second Semester:**

Week	Topic
Week 19	Water the Universal Solvent
Week 20	Micronutrients -Vitamins and Minerals
Week 21	Phytochemicals the other food components
Week 22	Food Analogs: Substitute ingredients
Week 23	Food Additives Producing desired characteristics in foods
Week 24	Fermentation: Desirable Effects of Microbes on Food
Week 25	Food Safety: Sources of Contamination
Week 26	Biotechnology: GMOs Nanotechnology, and Cell cultures
Week 27	Thermal Preservation: Hot and Cold Processing
Week 28	Dehydration and Concentration: Controlling Water Activity
Week 29	Food Packaging and Labeling
Week 30	Mixtures, Solutions, Colloidal Dispersions, and Suspensions
Week 31	Research: Developing New Food Products
Week 32	Food Science Related Careers: A world of Opportunities
Week 33	Food Truck Project
Week 34	Family budget project meal planning and shopping for a week with a budget
Week 35	Final Project Presentation
Week 36	Final Portfolio & Course Review

