ISLAMIAH WOMEN'S ARTS AND SCIENCE COLLEGE

Accredited by the NAAC with 'B' Grade

Vaniyambadi – Tamil Nadu

DEPARTMENT OF FOODS AND NUTRITION

PSOs and COs

PROGRAMME SPECIFIC OUTCOMES (PSOs)

PSO1: Eligible to work as a "Chief Dietician".

PSO2: Work as a "Chief Chef".

PSO3: Good quality controller in Food service Industry.

PSO4: Good diet counselor for the patient.

PSO5: Good food left –over Manager.

PSO6: Good baker.

PSO7: Best table Decorator.

PSO8: Best health and fitness Manager.

COURSE OUTCOME

SEMESTER I

COURSE: MICROBIOLOGY **CREDIT: 06**

CO1: Understand the role of microorganisms in spoilage of various foods.

CO2: Explain the micro-organism in relation to food and food preservation.

CO3: Design the principles of food preservation.

CO4: Outline the destruction of micro-organism.

CO5: Describe the micro-organism in human welfare.

CO6: Determine the contamination and spoilage of foods.

CO7: Compare and contrast the micro biology of food poisoning, food infection and food borne diseases.

COURSE: CHEMISTRY -I **CREDIT: 4**

CO1: Identify electronic configuration and periodic properties.

CO2: Understand the different types of chemical bonds.

CO3: Describe about nomenclature of aliphatic and alicyclic compounds.

CO4: Analyze different types of states of matter

CO5: Describe basic concepts of bonding in Organic Chemistry

CO6: Explain about different types of Volumetric Analysis

CO7: Analyze classification of elements and factors affecting atomic radii.

SEMESTER II

COURSE: HUMAN PHYSIOLOGY **CREDIT: 05**

CO1: Explain the structure and functions of a typical cells and tissues.

CO2: Identifying the blood grouping.

CO3: Determine the blood pressure and ECG.

CO4: Understand the structure and basic physiology of various organs of the body.

CO5: Understand the principles of nutrition through the study of physiology.

CO6: Determine the Heart beat and Cardiac Cycle.

COURSE: CHEMISTRY -II **CREDIT: 4**

CO1: Discuss about s and p-block elements group study.

CO2: Analyse the comparative study of alkane

CO3: Explain about dienes and stability of cycloalkanes

CO4: Discuss about quantum mechanics and thermodynamics

CO5: Describe about first law of thermodynamics.

CO6: Discuss about thermochemical equations.

COURSE: (A) MICROBIOLOGY (B) HUMAN PHYSIOLOGY – Core Practical – I

CREDIT: 03

CO1: Define Microscope.

CO2: Identify the yeast, molds, protozoa and bacteria.

CO3: Explain the simple staining and gram method of staining.

CO4: Understand the demonstration of determination of blood count.

CO5: Classify the tissue and Endocrine glands.

SEMESTER III

COURSE: FOOD SCIENCE **CREDIT: 03**

CO1: Define basic 5 food Groups.

CO2: Understand changes during cooking.

CO3: Classify various method of cooking.

CO4: Compare and contrast the nutritive values of Milk, Meat and Poultry.

CO5: Determine stages of sugar cookery.

COURSE: NUTRITIONAL BIOCHEMISTRY (Allied- II) CREDIT: 03

CO1: Define biochemistry and relation to Nutrition.

CO2: Classify the based on amino acid.

CO3: Explain the chemical composition of Fats.

CO4: Determine the Nucleic Acids and protein bio synthesis.

CO5: Describe the inborn errors of Metabolism.

COURSE: BAKERY (SBS – I) CREDIT: 03

CO1: Understand basic concepts of baking.

CO2: Discuss with the role of various major and minor ingredients in bakery products.

CO3: Explain baking process and operation.

CO4: Define the quality parameters of baking products.

CO5: Formulate the icing pasturing preparation.

COURSE: HEALTH AND FITNESS (NME – I) CREDIT: 02

CO1: Define health and wellness.

CO2: Describe nutrition and exercise.

CO3: Explain nutrition in sports nutrient.

CO4: Describe basic components of physical activity.

CO5: Explain awareness health and fitness.

SEMESTER IV

COURSE: HUMAN NUTRITION CREDIT: 03

CO1: Define the Health Statics of the people.

CO2: Determine the Energy required by various age groups.

CO3: Understand the effect of lipid on health statics.

CO4: Classify the protein based on the quality.

CO5: Describe the Role of vitamins and minerals.

COURSE: FOOD PRESERVATION (Allied) CREDIT: 04

CO1: Understand the principles of preservation.

CO2: Compare the preservation by high osmotic pressure concentration of salt.

CO3: Explain the preservation by uses of high and low temperature.

CO4: Classify the preservation by using chemicals and food radiation.

CO5: Compare and contrast the drying and dehydration.

COURSE: FOOD PRODUCT DEVELOPMENT AND MARKETING STRATEGY (SBS –II) CREDIT -03

CO1: Develop new marketable, nutritionally and economically viable food products.

CO2: Create entrepreneurship skills for setting up small scale industries.

CO3: Understand packaging of different food products.

CO4: Analyze financial management and marketing food products.

COURSE: NUTRITION FOR THE FAMILY (NME–II) CREDIT: 02

CO1: Classify the basic 5 food groups.

CO2: Explain the dietary problem eating disorders.

CO3: Classify the types of supplementary foods

COURSE: (A) FOOD SCIENCE (B) HUMAN NUTRITION (Practical – II) CREDIT: 03

CO1: Evaluate the Qualitative estimation of CHO.

CO2: Determine the Protein & Minerals present in the food materials.

CO3: Explain the techniques used in measurement of food stuff.

CO4: Formulate different recipes using basic 5 food groups.

CO5: Prepare hot & cold beverages.

COURSE: NUTRITIONAL BIOCHEMISTRY (B) FOOD PRESERVATION (Allied) Practical **CREDIT: 03**

CO1: Determination of CHO – Qualitative tests.

CO2: Explain the blood glucose level.

CO3: Classify the class I, class II food preservatives.

CO4: Identify the uses of sorbic acid and sulphurdioxide as antimicrobial preservatives.

CO5: Classify the Traditional methods of food preservation.

SEMESTER V

COURSE: DIETETICS – I **CREDIT: 05**

CO1: Define role of diet.

CO2: Understand principles of diet.

CO3: Describe menu planning and serving therapeutic diet.

CO4: Analyze the nutritive values.

CO5: Determine the diet in infections and fevers.

CO6: Outline disease of the gastro intestinal tract.

COURSE: NUTRITION THROUGH LIFE CYCLE **CREDIT: 05**

CO1: Explain nutrition during life span.

CO2: Prepare the dietary modification.

CO3: Classify the Recommended allowances.

CO4: Describe the nutrition in pregnancy.

CO5: Determine physiology of lactation hormonal control and reflex action.

CO6: Prepare the infancy feeding programme.

CO7: Explain the packed lunch for school going children.

COURSE: COMMUNITY NUTRITION **CREDIT: 05**

CO1: Define the role of Community Nutrition.

CO2: Understand the mal nutritional Problems among the community.

CO3: Outline the nutrition and health in national development.

CO4: Apply nutrition policy and programs.

CO5: Describe the skills needed to delivery nutrition services.

COURSE: HOSPITAL FOOD SERVICE ADMINISTRATION (Elective – I)

CREDIT: 03

CO1: Define role of hospital food service administration.

CO2: Develop skills to maintain medical records.

CO3: Understand the management of resource in hospitals.

CO4: Describe the principles of hospitals management.

CO5: Design hospital diets and housekeeping department.

COURSE: INTERNSHIP (SBS – III) **CREDIT: 03**

CO1: Define role of diet.

CO2: Understand principles of diet.

CO3: Describe menu planning and serving therapeutic diet.

CO4: Analyze the nutritive value of food ingredients.

CO5: Identify the nutrition related problems, determine and evaluate nutrition intervention programs.

SEMESTER VI

COURSE: DIETETICS –II **CREDIT: 05**

CO1: Classify the principles of diet therapy and different therapeutic diets.

CO2: Develop attitude for taking up dietetics as a profession.

CO3: Describe the menu planning to therapeutic diet.

CO4: Explain the food sensitivity and genetic disorder.

CO5: Classify the stages of HIV infections and medical nutritional therapy.

CO6: Compare and contrast the modification of diet in obesity and underweight.

CO7: Outline the disease of liver, gall bladder and pancreas.

COURSE: FOOD SERVICE MANAGEMENT **CREDIT: 04**

CO1: Create and awareness on the organizational aspect and functioning of different types of food service institutions.

CO2: Develop managerial skills among the students.

CO3: Understand the space allocation and arrangement of food service units.

CO4: Explain quantitative and qualitative food analysis.

COURSE: HUMAN DEVELOPMENT & COUNSELLING CREDIT: 04

CO1: Define concept of development and growth.

CO2: Understand development aspects from conception to old age as they can be guided effectively.

CO3: Explain the behavior pattern of the individual and various factors influencing them.

CO4: Describe the prenatal and postnatal development.

CO5: Classify the stages of life span.

COURSE: FOOD STANDARD AND QUALITY CONTROL (Elective –II) CREDIT: 03

CO1: Define government regulation in quality control.

CO2: Classify the AGMARK and specification for food grains.

CO3: Explain the consumer protection Act.

CO4: Design the company quality Assurance program.

CO5: Identify the quality control and common food standard.

COURSE: NUTRACEUTICALS AND NUTRIGENOMICS (Elective –III) CREDIT: 03

CO1: Define Nutraceuticals and nutrigenomics.

CO2: Explain the role of dietary supplements and nutraceuticals in health and disease.

CO3: Classify the probiotics and prebiotics.

CO4: Determine the application of nutrigenomics in health and diesease.

COURSE: PERSPECTIVE OF HOME SCIENCE (SBS –IV) CREDIT: 03

CO1: Understand the concept and scope of Home science and its components.

CO2: Explain the job opportunities in home science.

CO3: Create new design in home science.

CO4: Outline balanced diet for various age groups.

CO5: Describe human development.

COURSE: (A) NUTRITION THROUGH LIFE CYCLE (B) DIETETICS –I (Practical - III) CREDIT: 03

CO1: Describe menu planning.

CO2: Formulate the food preparation.

CO3: Compare nutritional requirement for infant to old age.

CO4: Analyze nutritional requirements for Expectant and Lactating women

CO5: Describe the menu planning to therapeutic diet.

COURSE: (A) FOOD SERVICE MANAGEMENT (B) DIETETICS –II (Practical – IV) CREDIT: 03

CO1: Outline well organized food service unit.

CO2: Explain table settings.

CO3: Prepare quantity cookery.

CO4: Differenticiate normal and therapeutic diet

CO5: Plan and prepare a diet for diabetes mellitus with and without insulin.

M.Sc. FOODS AND NUTRITION

PROGRAMME SPECIFIC OUTCOMES (PSOs)

PSO1: To work as a chief dietician.

PSO2: Best Creech center manager.

PSO3: Best New- food formulator.

PSO4: Best food quality controller.

PSO5: Best preservation manager (or) using natural colour.

PSO6: Best kitchen Dietician.

PSO7: Best beverage department manager.

PSO8: Best interior designer.

COURSE OUTCOME (CO)

SEMESTER I

COURSE: ADVANCED PHYSIOLOGY CREDIT: 05

CO1: Understand the general structure and function of various system and organ in the body.

CO2: Outline the abnormal changes in tissues and organs in deceased condition.

CO3: Explain endocrine glands and reproductive organs.

CO4: Compare and contrast respiration and gastrointestinal tract.

CO5: Analysis of blood composition.

CO6: Describe nerves system.

CO7: Explain immunity system.

COURSE: ADVANCED FOOD SCIENCE CREDIT: 05

CO1: Understand the principles of cooking.

CO2: Design the composition of various foods.

CO3: Formulated the effect of cooking on composition.

CO4: Analysis the Meat & Meat products.

CO5: Evaluate the Milk and Milk products.

CO6: Classify the Fats & Oil food products.

CO7: Classify the sugar cookery and beverages essentials of macro nutrients.

COURSE: ESSENTIALS OF MACRO NUTRIENTS CREDIT: 05

CO1: Understand the role of macronutrients.

CO2: Classify the carbohydrate metabolisms.

CO3: Explain metabolism of macronutrients.

CO4: Describe lipids structure.

CO5: Define Energy content food.

CO6: Analysis of CHO, Protein and Fat.

CO7: Define the metabolism of macro nutrients.

COURSE: HEALTH AND FITNESS (Elective – I) **CREDIT: 03**

CO1: Define health and wellness.

CO2: Describe nutrition and exercise.

CO3: Explain nutrition in sports nutrient.

CO4: Describe basic components of physical activity.

CO5: Explain awareness health and fitness.

SEMESTER II

COURSE: ESSENTIALS OF MICRO NUTRIENTS **CREDIT: 03**

CO1: Develop competence to carryout investigation of nutrition.

CO2: Explain principles Micro nutrients.

CO3: Describe vitamin A, D, E, and K.

CO4: Determine Electrolytes content of fluid compartments.

COURSE: NUTRITION THROUGH LIFE CYCLE **CREDIT: 05**

CO1: Explain nutrition during life span.

CO2: Prepare the dietary modification.

CO3: Classify the Recommended allowances.

CO4: Describe the nutrition in pregnancy.

CO5: Determine physiology of lactation hormonal control and reflex action.

CO6: Prepare the infancy feeding programme.

CO7: Plan and prepare a day's menu of adolescent and adult.

COURSE: FOOD MICROBIOLOGY **CREDIT: 05**

CO1: Understand the role of microorganisms in spoilage of various foods.

CO2: Explain the micro-organism in relation to food and food preservation.

CO3: Design the principles of food preservation.

CO4: Outline the destruction of micro-organism.

CO5: Describe the micro-organism in human welfare.

CO6: Determine the contamination and spoilage of foods.

CO7: Compare and contrast the micro biology of food poisoning, food infection and food borne diseases.

COURSE: FOOD STANDARDS AND QUALITY CONTROL (Elective –II)

CREDIT: 03

CO1: Explain fundamental of food quality control procedures.

CO2: Define the common food standard.

CO3: Classify the food laws.

CO4: Determine food safety and Hygiene.

COURSE: ADVANCE FOOD SCIENCE & ESSENTIAL OF MACRO NUTRIENTS (Practical – I) **CREDIT: 04**

CO1: Understand the preparation of rice based products.

CO2: Classify the composition of various foods.

CO3: Identify the effects of cooking on composition.

CO4: Explain the stages of sugar cookery.

CO5: Understand the qualitative and quantitative analysis.

CO6: Describe the total protein by microkjeldhal method.

CO7: Analyse the fat by soxhlet method.

COURSE: (A) ESSENTIALS OF MICRO NUTRIENTS &(B) NUTRITION THROUGH LIFE CYCLE (Practical –II)

CREDIT: 04

CO1: Analysis calcium of food.

CO2: Determine ascorbic acid in cabbage by dye method.

CO3: Plan and prepare a day's menu for infancy to old age.

CO4: Explain menu planning for sports person.

CO5: Classify the type of worker sedentary, moderate and heavy worker.

SEMESTER III

COURSE: NUTRITIONAL BIOCHEMISTRY CREDIT: 04

CO1: Define biochemistry and relation to Nutrition.

CO2: Classify the based on amino acid.

CO3: Explain the chemical composition of Fats.

CO4: Determine the Nucleic Acids and protein bio synthesis.

CO5: Describe the inborn errors of Metabolism.

COURSE: RESEARCH METHODOLOGY AND APPLIED STATISTICS CREDIT: 04

CO1: Explain primary and secondary data.

CO2: Compare and contrast the correlation co- efficient between two variables.

CO3: Analyze statistical data using MS-Excel.

CO4: Describe simple linear regression equation for a set of data.

CO5: Apply test of significance for large and small sample.

COURSE: COMMUNITY NUTRITION CREDIT: 04

CO1: Define the role of Community Nutrition.

CO2: Understand the mal nutritional Problems among the community.

CO3: Outline the nutrition and health in national development.

CO4: Apply nutrition policy and programs.

CO5: Describe the skills needed to delivery nutrition services.

COURSE: NUTRITION IN EMERGENCIES (Elective – III) CREDIT: 03

CO1: Understand the protecting people's right to nutrition during disaster.

CO2: Prepare for emergencies, to prevent hunger, malnutrition and deficiency disorder.

CO3: Create and awareness on nutrition policies and programmes to combat nutritional problems.

CO4: Outline the communicable disease.

COURSE: FUNCTIONAL FOODS AND NUTRACEUTICALS- ELECTIVE -II CREDIT: 03

CO1: Describe the source of functional foods and nutraceuticals.

CO2: Explain the role of functional foods and nutraceuticals and dietary supplements in health and disease.

CO3: Classification based on food source.

CO4: Create source and role of functional foods and nutraceuticals.

COURSE: INTERNSHIP (SBS – III) CREDIT: 02

CO1: Define role of diet.

CO2: Understand principles of diet.

CO3: Describe menu planning and serving therapeutic diet.

CO4: Analyze the nutritive value of food ingredients.

SEMESTER IV

COURSE: DIET THERAPY CREDIT: 05

CO1: Understand the principles of diet and nutrition in the causes and treatment of disease.

CO2: Learn recent concept in dietary management of different disease.

CO3: Understand the modification in nutrients and dietary requirement for therapeutic condition.

CO4: Explain principles of nutritional care.

CO5: Plan and prepare a day's menu of disease condition.

CO6: Explain parenteral feeding jejunonstomy, nasogastric, gastronomy, rectal feeding.

CO7: Describe cardio vascular system.

COURSE: FOOD BIOTECHNOLOGY CREDIT: 03

CO1: Explain recent updated on recent advanced in the application of genetic engineering in food.

CO2: Develop an understanding about Nano biotechnology industries.

CO3: Describe classical strain improvement.

CO4: Apply the Nano biotechnology in food industries.

COURSE: (A) NUTRITIONAL BIOCHEMISTRY (B) COMMUNITY NUTRITION (Practical) CREDIT: 04

CO1: Determine the saponification number.

CO2: Describe the serum proteins by Biuret method.

CO3: Determine the albumin/ globulin ratio biuret.

CO4: Develop the plan for nutrition education programmes in community.

CO5: Develop the low cost recipes for infant, preschooler, elementary.

CO6: Classify the communication aids for different groups.

COURSE: DIET THERAPY (Practical – IV) CREDIT: 04

CO1: Explain the types of diet.

CO2: Understand the principles of therapeutic diet for various disease conditions.

CO3: Plan and Calculate nutritive value of diet

CO4: Classify the type- I and II diabetes mellitus.

CO5: Plan a diet for deficiency disease.