



**THE STANDARD FIREWORKS RAJARATNAM COLLEGE FOR WOMEN (AUTONOMOUS),
SIVAKASI – 626 123.**

(Affiliated to Madurai Kamaraj University, Re-accredited with A Grade by NAAC,
College with Potential for Excellence by UGC and Mentor Institution under UGC PARAMARSH)

**DEPARTMENT OF NUTRITION AND DIETETICS
UG DEGREE PROGRAMME IN NUTRITION AND DIETETICS**

PROGRAMME EDUCATIONAL OBJECTIVES

The Graduates will

PEO1.	expertize in diet therapy and counseling, appraise the quality of food products as quality controller in food industries and imply their knowledge to opt higher studies.
PEO2.	utilize food products based on the needs by proper food management and design value added innovative food products to combat deficiency disorders.
PEO3.	improve entrepreneurial skills in the field of food and nutrition and to establish a food service outlet.
PEO4.	associate their life with the knowledge acquired on foods to be included and avoided and hence ensure healthy lifestyle by preventing the disease rather treating the diseases to themselves and to the community.

PROGRAMME SPECIFIC OUTCOMES

By the Completion of B.Sc., Nutrition and Dietetics, the learners will be able to

PSO1.	infer and summarize the basic skills of various cooking technologies.
PSO2.	analyze nutrients, food quality and manage diseases using diet therapy.
PSO3.	compare and contrast nutritive value for various food ingredients and enrich the quality of food by incorporation and fortifications.
PSO4.	create awareness on healthy and junk foods to the community and set up a computerized food service establishment.

PSO5.	inculcate the spirit to work under hierarchy.
PSO6.	adapt preservation techniques to use food resources appropriately to ensure food safety and security.
PSO7.	extended learning and update on health to assert ideal body weight there - by avow self health improvement .

COURSE OUTCOME

Core Course	
Course Code: GLND11	Course Title: Food Science
On successful completion of the course, the learners should be able to	
CO1.	recall the food groups and various cooking methods.
CO2.	enlist the classification and selection methods of various food groups and beverages
CO3.	outline the nutritive value and cooking methods of different food groups.
CO4.	determine the process of emulsion, rancidity and functions and medicinal values of various spices.
CO5.	analyze gelatinization, dextrinization, retro-gradation, germination, browning reaction, pasteurization, homogenization and sugar cookery.

Core Course	
Course Code: GLND12	Course Title: Principles Of Nutrition
On successful completion of the course, the learners should be able to	
CO1.	recall the nutritional status, role and deficiencies of various nutrients.
CO2.	specify the classification, functions, digestion, absorption and sources of various nutrients.
CO3.	explain BMR, factors influencing BMR, total energy requirement of body and calorimetric methods.
CO4.	identify the role of food and nutrients in health and disease prevention.
CO5.	analyze the role of macro and micro nutrients in human health.

Allied Course	
Course Code: GLND1A	Course Title: Human Development
On successful completion of the course, the learners should be able to	
CO1.	recall the growth and development at different stages of life.
CO2.	outline the physical, social, emotional, motor, cognitive and language development of various stages of life.
CO3.	explain pre-natal and post-natal care, complications in pregnancy, labour, immunization of the baby, types of play, behavior problem, delinquency and social problems at old age.
CO4.	apply the idea of growth and development task of different stages.
CO5.	identify the appropriate child study techniques in different stages of life.

Core Course	
Course Code: GLND21	Course Title: Nutritional Biochemistry
On successful completion of the course, the learners should be able to	
CO1.	recall the structure and classification of various nutrients.
CO2.	describe the metabolism and biochemical role of various nutrients.
CO3.	outline the functions and mode of action of different enzymes.
CO4.	explain the inborn errors of metabolism.
CO5.	analyze the functions and biochemical role of various nutrients and enzymes in human health.

Allied Course	
Course Code: GLND2A	Course Title: Human Physiology
On successful completion of the course, the learners should be able to	
CO1.	recall the structure, digestion, absorption and functions of various organ systems of the body.
CO2.	explain the various components involved in digestive system, respiratory system, reproductive system, endocrine system and nervous system.
CO3.	comprehend the secretion and role of hormones in various glands of human body.
CO4.	list the mechanism of various organs.
CO5.	analyze the importance of various organs, glands and systems of human body.

Core Course	
Course Code: GLND2L	Course Title: lab – I
On successful completion of the course, the learners should be able to	
CO1.	explain various cooking methods of foods.
CO2.	compare and contrast different food groups and their composition.
CO3.	experiment the various cooking methods of basic food groups.
CO4.	demonstrate qualitative and quantitative estimation of nutrients of food.
CO5.	examine glucose level in blood and urine samples to identify disorders.

Allied Course	
Course Code: GLND2AL	Course Title: Allied Lab I
On successful completion of the course, the learners should be able to	
CO1.	identify and explain the structure and functions of various human organs.
CO2.	examine the microscopic structure and functions of various glands.
CO3.	experiment blood grouping and relate blood coagulation process.
CO4.	define various techniques involved in assessing the child development.
CO5.	develop skills in child development and care.

Core Course	
Course Code: GLND31	Course Title: Nutrition Through Life Cycle
On successful completion of the course, the learners should be able to	
CO1.	outline the food groups, food pyramid and principles of meal planning diets for the various stages of life.
CO2.	explain the principles of planning diets, RDA and nutritional needs for various stages of life and breast feeding and artificial feeding.
CO3.	specify the dietary problems, complications and physiological changes of pregnancy, lactation and old age and nutritional requirements for various stages of life
CO4.	identify the dietary modification and nutritional requirements for various stages of life span.
CO5.	prescribe appropriate diet for any individual and compare breast feeding with artificial feeding by analyzing its composition.

Core Course	
Course Code: GLND32	Course Title: Food safety and Quality Control
On successful completion of the course, the learners should be able to	
CO1.	outlines the objective, principle and stages of food safety and food hazards.
CO2.	comprehend the role of National and International agencies in establishing food standard.
CO3.	apply the packaging and labeling methods on different food products.
CO4.	explain about adulteration and food additives, evaluation techniques and test used to analyze food.
CO5.	analyze the quality, safety and standard of any food.

Allied Course	
Course Code: GLND3A	Course Title: Food Preservation
On successful completion of the course, the learners should be able to	
CO1.	recall the principles and various methods of food preservation techniques.
CO2.	outline food spoilage and role of preservatives.
CO3.	describe the influence of food preservatives and preservative techniques in the process of preservation technology.
CO4.	explain the techniques, procedure and types for preserving various food products.
CO5.	apply the preservation methods and techniques in preserving various food products.

Core Course	
Course Code: GLND41	Course Title: Food Microbiology
On successful completion of the course, the learners should be able to	
CO1.	explain the morphological, characteristics and industrial importance of microorganisms.
CO2.	determine the methods and substances used to control the growth of microbes in the food.
CO3.	comprehend food spoilage in cereals and cereal products, vegetables, fruits, milk and milk products, poultry, egg and sea foods.
CO4.	explain and distinguish food-borne infections and intoxications.
CO5.	analyze the functions of microbes in the development of fermented foods.

Allied Course	
Course Code: GLND4A	Course Title: Family Resource Management
On successful completion of the course, the learners should be able to	
CO1.	outline the concept of resource management and types of family resources.
CO2.	explain the types of decision making technique, budgeting, time management in work simplification.
CO3.	analyze the types and principles of design and color.
CO4.	apply decision making techniques, time management process and budget for different income group.
CO5.	discuss about the furniture, lighting, accessories and flower arrangement based on their uses.

Core Course	
Course Code: GLND4L	Course Title: Lab II
On successful completion of the course, the learners should be able to	
CO1.	planning, preparing and serving a meal for various income groups and various age groups.
CO2.	develop skills to prepare packed lunches and weaning mix.
CO3.	identify the microscopic structure of microorganism.
CO4.	examine the stained and unstained organisms.
CO5.	examine the micro- organisms in various food items.

Allied Course	
Course Code: GLND4AL	Course Title: Allied Lab II
On successful completion of the course, the learners should be able to	
CO1.	describe and prepare the preserved food by various preservation techniques.
CO2.	adapt drying and rehydration methods to prepare food items and avoid wastage.
CO3.	apply color harmony in flower arrangement.
CO4.	develop skills in planning a budget for different income groups.
CO5.	analyze sensory evaluation on foods for quality assurance of food products.

Elective Course	
Course Code: GLND3N	Course Title: Introduction to Food and Nutrition
On successful completion of the course, the learners should be able to	
CO1.	explain the basic concept of health and fitness.
CO2.	identify the indicators responsible for health.
CO3.	analyze the basic function of food groups.
CO4.	discuss factors affecting and assessment of physical fitness.
CO5.	describe the role of healthy food and exercise in life.

Elective Course	
Course Code: GLND4N	Course Title: Health and Fitness
On successful completion of the course, the learners should be able to	
CO1.	explain the basic concept of health and fitness.
CO2.	identify the indicators responsible for health.
CO3.	analyze the basic function of food groups.
CO4.	discuss factors affecting and assessment of physical fitness.
CO5.	describe the role of healthy food and exercise in life.

Skill Based Course	
Course Code: GLND4DS	Course Title: Food Product Development
On successful completion of the course, the learners should be able to	
CO1.	recall the various concept of new food product.
CO2.	identify the various packaging materials, marketing strategies available in the market.
CO3.	outline the labeling of different food products.
CO4.	apply the new techniques in marketing strategies.
CO5.	analyze the new methods used for the packaging and labeling in the products.

Core Course	
Course Code: GLND51	Course Title: Therapeutic Diet
On successful completion of the course, the learners should be able to	
CO1.	outline the role of dietitian, types of hospital diet, special feeding methods and Total Parenteral Nutrition.
CO2.	identify the etiology, symptoms and dietary management for various diseases.
CO3.	comprehend dietary principles in planning therapeutic diet for disease conditions.
CO4.	explain dietary modifications according to the disease condition.
CO5.	plan therapeutic diets for various diseases based on their physical and biochemical assessment.

Core Course	
Course Code: GLND5L	Course Title: Lab – III
On successful completion of the course, the learners should be able to	
CO1.	create therapeutic hospital diets.
CO2.	decide diets for the patients with metabolic disorders.
CO3.	design diet for the patients with cardiovascular diseases and kidney diseases.
CO4.	formulate diet for the patients with special conditions such as cancer, burns and AIDS.
CO5.	build themselves as a dietitian by undergoing 15 days internship in a multi-specialty hospital.

Core Course	
Course Code: GLND61	Course Title: Therapeutic Diet and Counselling
On successful completion of the course, the learners should be able to	
CO1.	recall the concept of diet counseling, assessing the patient's needs and prescribe appropriate diet.
CO2.	outline the etiology, symptoms of various disease and disorders.
CO3.	explain the principles of diet and nutritional requirement for various diseases.
CO4.	identify suitable dietary modifications for various diseases and genetic disorders.
CO5.	plan and prescribe diet for various disease conditions.

Core Course	
Course Code: GLND62	Course Title: Food Service Management
On successful completion of the course, the learners should be able to	
CO1.	recall the concept of food service institution, food plant layout, food management, and food cost control.
CO2.	outline the types of food service institutions, selection and types of equipment's, menus and functions of management.
CO3.	apply the concept of food purchasing, table setting, personal management, left over foods, standardization of foods and computer utilization in food service management.
CO4.	summaries the tools of management, personnel management in food sector.
CO5.	explain the functions of catering industry, layout of food plant, factors affecting menu planning.

Core Course	
Course Code: GLND6L	Course Title: Lab - IV
On successful completion of the course, the learners should be able to	
CO1.	illustrate and prepare therapeutic diet for various diseases.
CO2.	examine calorie counting and nutritive value to develop skill in diet planning.
CO3.	illustrate diet management in sports nutrition for being healthy.
CO4.	formulate the idea to cure genetic disorders.
CO5.	adopt entrepreneurial skill through quality cooking, preparation and organization.

Core Course	
Course Code: GLND6P	Course Title: Project
On successful completion of the course, the learners should be able to	
CO1.	outline the research methods and need for the research.
CO2.	apply research techniques and ideas to make desirable outcome.
CO3.	develop knowledge on communication and diet counseling.
CO4.	create awareness and counsel the patients with diet modification according to the condition of the patients.
CO5.	analyze the innovative food product and disease specific diet.

Elective Course	
Course Code: GLND5E1	Course Title: Community Nutrition
On successful completion of the course, the learners should be able to	
CO1.	relate the concept of community nutrition and ecology of mal nutrition.
CO2.	discuss the nutritional status of the community/ individual by various assessment methods.
CO3.	explain the various nutrition education programmes.
CO4.	analyze the role of national and international organization in welfare of the community.
CO5.	apply the knowledge acquired on nutritional assessment, nutritional education and nutritional programme for the welfare of the community by creating awareness on the same.

Elective Course	
Course Code: GLND5E2	Course Title: Food Packaging
On successful completion of the course, the learners should be able to	
CO1.	outline the functions of food packaging and applications of food packages.
CO2.	categorize the packaging materials according to the purpose and requirement.
CO3.	choose the packages for radiation stabilized foods.
CO4.	assess the suitable packages for dehydrated products.
CO5.	make up the finished goods using different procedures in labeling.

Elective Course	
Course Code: GLN5E3	Course Title: Extension Education
On successful completion of the course, the learners should be able to	
CO1.	explain the steps in extension education and qualities of extension educator.
CO2.	list the objectives and principles of community development.
CO3.	inspect the techniques of communication for development of communication in a community.
CO4.	formulate extension programme for the welfare of people.
CO5.	organize developmental programme to benefit the people and ensures women empowerment in a community.

Elective Course	
Course Code: GLND5E4	Course Title: Functional Foods and Nutraceuticals
On successful completion of the course, the learners should be able to	
CO1.	relate the role and importance of nutraceuticals.
CO2.	summarize the structure, properties and uses of functional foods and antioxidants.
CO3.	identify the various sources and health benefits of functional foods.
CO4.	examine the functions of nutraceuticals and anti-nutritional factors in various food products.
CO5.	explain nutraceutical rich supplements, probiotics and prebiotics as nutraceuticals.

Elective Course	
Course Code: GLND6E1	Course Title: Textiles and Clothing
On successful completion of the course, the learners should be able to	
CO1.	compare and contrast natural and man- made fibre.
CO2.	examine the twist, counts and types of yarns with its applicability.
CO3.	demonstrate the construction in fabrics, types of weaving and its benefits.
CO4.	formulate textile finishing, and improve technical skill in textiles.
CO5.	categorize dyeing and printing, methods of dyeing, compare hand and machine printing.

Elective Course	
Course Code: GLND6E2	Course Title: Food Biotechnology
On successful completion of the course, the learners should be able to	
CO1.	apply the idea of Genetically Modified Foods its benefits and hazards.
CO2.	categorize the microbial fermentation technique and its applicability.
CO3.	explain the preparation of various valuable fermented food products.
CO4.	enlist the types, Processes and importance of immobilization techniques and their importance.
CO5.	explain the concepts of functional foods and nutraceuticals in the field of food biotechnology.

Self-Employment Course	
Course Code: GLSE70	Course Title: Food Processing and Preparation
On successful completion of the course, the learners should be able to	
CO1.	outline the concept of food processing; classify preservatives, its role and importance.
CO2.	apply the procedure involved in preparation of pickles, sauce, squashes.
CO3.	explain various methods to use prepare dehydrated products and candies.
CO4.	compile the proper use of food products to avoid wastage.
CO5.	improve entrepreneurial attitude towards food processing technology.

Self-Employment Course	
Course Code: GLSE70L	Course Title: Food Processing and Preparation Practical
On successful completion of the course, the learners should be able to	
CO1.	formulate their own preparations adopting preservation techniques.
CO2.	demonstrate the preparation of dehydrated products like vadam.
CO3.	illustrate the preparation of mango fruit cheese and syrup.
CO4.	elaborate the utilization of food materials for long term use.
CO5.	develop self-directed opportunities for sustainable self-income.

