



**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.	expertise 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.	plan and prescribe the meal to meet the RDA and dietary modification based on the available resources and design value added food products to combat deficiency disorder.
PEO3.	improve entrepreneurial and managerial skills in the field of food and nutrition and to build a healthy family and society.

PROGRAMME LEARNING OUTCOMES

By the Completion of B.Sc programme, the learners will be able to

PLO1.	Apply the knowledge of Arts, Science and Humanities to address fundamental and complex questions appropriate to their programmes.
PLO2.	Make use of appropriate knowledge and skills to identify, formulate, analyze and solve problems in order to reach substantiated conclusions.
PLO3.	Critically analyze research processes, products and practices with a view of strategic use of data in their field.
PLO4.	Demonstrate skills in oral and written communication and make use of ICT in various learning ambience.
PLO5.	Interact productively with people from diverse backgrounds as both leaders/mentors and team members with integrity and professionalism.
PLO6.	Defend the society against gender and environmental issues with moral and ethical awareness.
PLO7.	Formulate their own educational needs in a changing world in ways sufficient to maintain their competence and to allow them to contribute to the advancement of knowledge.

COURSE LEARNING OUTCOME

Core Course	
Course Code: 23GDC11	Course Title: FOOD SCIENCE
On successful completion of the course, the learners should be able to	
CLO1[K2]	outline the food groups and various cooking methods.
CLO2[K3]	identify the cooking, processing and adulteration of various food groups.
CLO3 K4]	analyze the structure, composition, functions, medicinal values, nutritive value, cookery stages, methods, selection and processing of various foods and food groups.
CLO4[K5]	appraise the nutritive value of various food groups.
CLO5[K6]	develop recipes by using various cooking and processing methods of different food groups.

Core Course	
Course Code: 23GDC1L	Course Title: BASIC COOKERY PRACTICAL
On successful completion of the course, the learners should be able to	
CLO1[K2]	explain the principles of cookery, cooking techniques and suitable ingredients in preparing dishes and the reasons behind the changes that occur during food preparation. .
CLO2[K3]	identify appropriate methods for weighing dry and wet food ingredients and for cooking different foods.
CLO3 K4]	analyze the suitable methods for cooking cereals, pulses, vegetables, meat, fish and poultry.
CLO4[K5]	justify the best preparation and cooking methods for acceptability and retention of nutrients in different dishes.
CLO5[K6]	prepare various recipes using appropriate methods of cooking.

Generic Elective Course

Course Code: 23GDEG11

Course Title: CHEMISTRY OF
NUTRIENTS – I

On successful completion of the course, the learners should be able to

CLO1[K2]	understand the role of enzymes in metabolism and clinical conditions.
CLO2[K3]	determine the significance of macro nutrient metabolism and its disorders.
CLO3 K4]	analyze the functions and properties of various biochemical components present in human body.
CLO4[K5]	interpret the importance of bio chemical elements which is regulating the human body.
CLO5[K6]	compile the significance of recent biochemical concepts namely xenobiotic, recombinant DNA technology and nutrigenomics.

Foundation Course

Course Code: 23GDFC11

Course Title: HUMAN NUTRITION

On successful completion of the course, the learners should be able to

CLO1[K2]	outline the importance of nutrients, terms related to nutrition and its scope.
CLO2[K3]	identify the sources and functions of macronutrients, micronutrients.
CLO3 K4]	analyze the significance of macro and micronutrients for the maintenance of optimum health.
CLO4[K5]	assess the methods of determining energy value of foods, quality of protein and the role of various nutrients in human health.
CLO5[K6]	formulate the energy requirements for different age groups based on BMR.

Core Course	
Course Code: 23GDC2L	Course Title: PHYSIOLOGY PRACTICAL
On successful completion of the course, the learners should be able to	
CLO1[K2]	outline various techniques involved in assessing the child development.
CLO2[K3]	identify the structure and functions of various human organs.
CLO3 K4]	examine the microscopic structure and functions of various glands.
CLO4[K5]	asses a child's development by case study.
CLO5[K6]	prepare teaching materials and aids to improve the cognitive, language, moral and social development during early and late childhood.

Core Course	
Course Code: 23GDC21	Course Title: HUMAN DEVELOPMENT AND PHYSIOLOGY
On successful completion of the course, the learners should be able to	
CLO1[K2]	explain the structure and functions of primary organs and systems in the body.
CLO2[K3]	apply the principles of growth and development in different stages of lifespan.
CLO3 K4]	analyze the physical, social, emotional, motor, cognitive and language development of various stages of life.
CLO4[K5]	interpret the secretion and role of different hormones in the human body
CLO5[K6]	integrate the physiology with the developmental process of human beings.

GENERIC ELECTIVE COURSE	
Course Code: 23GDEG21	Course Title: CHEMISTRY OF NUTRIENTS – II
On successful completion of the course, the learners should be able to	
CLO1[K2]	summarize the biochemical role of various vitamins and minerals.
CLO2[K3]	identify the signs and symptoms of metabolic changes, deficiency diseases, inborn errors and water & electrolyte imbalance.
CLO3 K4]	analyze the metabolic role, digestion and absorption of various biochemical components present in human body.
CLO4[K5]	interpret the importance of water and electrolytes in regulating the human body.
CLO5[K6]	compile the importance of antioxidants for maintaining health.

CORE COURSE	
Course Code: 23GDC31	Course Title: NUTRITION THROUGH LIFE CYCLE
On successful completion of the course, the learners should be able to	
CLO1[K2]	outline the food groups, food pyramid and principles of meal planning diets for the various stages of life
CLO2[K3]	identify the difference between breast feeding and artificial feeding and nutritional requirements for various stages of life span.
CLO3 K4]	analyze the dietary problem, complications and physiological changes of pregnancy, lactation & old age and nutritional requirement for various stages of life span.
CLO4[K5]	explain the principles of planning diets, RDA and nutritional needs for various stages of life.
CLO5[K6]	formulate appropriate diet for any individual based on one's age, sex, occupation and family income

CORE COURSE	
Course Code: 23GDC3L	Course Title: MEAL PLANNING PRACTICAL
On successful completion of the course, the learners should be able to	
CLO1[K2]	outline the basic principles in planning a meal based on individual requirement.
CLO2[K3]	plan and prepare a day's meal for women in special conditions such as pregnancy and lactation.
CLO3 K4]	discover innovative ideas in the preparation of indigenous weaning mix.
CLO4[K5]	choose an appropriate meal for various income groups and age groups.
CLO5[K6]	formulate menu plan for individuals of various age groups based on their nutritional needs.

GENERIC ELECTIVE COURSE	
Course Code: 23GDEG31	Course Title: PRINCIPLES OF RESOURCE MANAGEMENT
On successful completion of the course, the learners should be able to	
CLO1[K2]	explain the principles of management process.
CLO2[K3]	identify the resources and techniques involved in the management process.
CLO3 K4]	analyze the importance of time, energy and money management.
CLO4[K5]	recommend ideas for effective work simplification and money management.
CLO5[K6]	propose a budget plan for a family according to the income.

SKILL ENHANCEMENT COURSE

Course Code: 23GDDS3L

Course Title: VALUE ADDED FOOD
PRODUCTS PRACTICAL

On successful completion of the course, the learners should be able to

CLO1[K2]	illustrate the preparation steps of incorporation of millets and functional foods.
CLO2[K3]	identify the functional foods to incorporate them in foods.
CLO3 K4]	compare value added foods with normal foods.
CLO4[K5]	evaluate the steps involved in the preparation of value added foods.
CLO5[K6]	prepare ready to eat and ready to cook food products.

SKILL ENHANCEMENT COURSE

Course Code: 23GDES31

Course Title: FOUNDATION FOR
ENTREPRENEURSHIP

On successful completion of the course, the learners should be able to

CLO1[K2]	describe the concept of entrepreneurship.
CLO2[K3]	identify the financial institutions and various loan schemes for starting a business.
CLO3 K4]	analyze the types, qualities of entrepreneurs.
CLO4[K5]	assess the problems of women and rural entrepreneurs.
CLO5[K6]	prepare a startup proposal to various state and central government financial schemes.

CORE COURSE

Course Code: 23GDC41

Course Title: DIETETICS

On successful completion of the course, the learners should be able to

CLO1[K2]	comprehend the concepts of diet therapy and the role of dietitian.
CLO2[K3]	apply the principles of dietetics to plan therapeutic diets for various disease conditions.
CLO3 K4]	infer the etiology, symptoms and principles of dietary management for various diseases.
CLO4[K5]	recommend the dietary modification based on the physiological condition of the individual.
CLO5[K6]	design a suitable diet plan using principles of nutritional management and recommend dietary allowances.

CORE COURSE

Course Code: 23GDC4L

Course Title: DIETETICS PRACTICAL

On successful completion of the course, the learners should be able to

CLO1[K2]	outline the principles of dietary management for various conditions.
CLO2[K3]	calculate the nutritive value of the diet for various conditions and compare it with the recommended allowances.
CLO3 K4]	compare the nutritive value of the normal diet, modified diet and RDA.
CLO4[K5]	justify the choice of foods, preparation methods and consistency for the prepared therapeutic diets of different disease conditions.
CLO5[K6]	propose diet charts for various disease conditions.

GENERIC ELECTIVE COURSE

Course Code: 23GDCI41

Course Title: FOOD PRESERVATION

On successful completion of the course, the learners should be able to

CLO1[K2]	outline the principles and various methods of food preservation techniques.
CLO2[K3]	apply the influence of food preservatives and preservative techniques in the food processing industry.
CLO3 K4]	analyze the importance and principles of food preservation techniques.
CLO4[K5]	suggest the appropriate preservation techniques, and packaging materials to reduce food wastage.
CLO5[K6]	propose ideas to increase the shelf-life of foods by using various preservation methods and techniques.

GENERIC ELECTIVE COURSE

Course Code: 23GDEG4L

Course Title: RESOURCES MANAGEMENT
PRACTICAL

On successful completion of the course, the learners should be able to

CLO1[K2]	demonstrate the various preservation techniques to preserve foods.
CLO2[K3]	apply the skills of decision making in house hold levels.
CLO3 K4]	plan a budget within the available income and to maintain accounts.
CLO4[K5]	appraise the types of preservatives used in the food industries.
CLO5[K6]	prepare food items by drying and rehydration methods.

CORE COURSE

Course Code: 23GDC51

Course Title: ADVANCED DIETETICS

On successful completion of the course, the learners should be able to

CLO1[K2]	summarize the concept of diet counseling, assessing the patients need and Prescribe the appropriate diet, symptoms and causes of various diseases.
CLO2[K3]	identify the etiology, symptoms of various disease, disorders and suitable dietary modifications for various diseases and genetic disorders.
CLO3 K4]	plan diet for various disease condition based on the nutritional assessments of the patients.
CLO4[K5]	interpret the principle of diet and nutritional requirements for various diseases.
CLO5[K6]	a sample diet chart for various disease conditions.

CORE COURSE

Course Code: 23GDC5L1

Course Title: ADVANCED DIETETICS
PRACTICAL

On successful completion of the course, the learners should be able to

CLO1[K2]	demonstrate the sample diet plan for various disease and disorders.
CLO2[K3]	estimate the nutritive value for the prepared therapeutic diet.
CLO3 K4]	analyze diet management for various diseases and genetic disorders.
CLO4[K5]	justify the planned menu for various disease condition.
CLO5[K6]	modify diets according to one's disease condition.

CORE COURSE**Course Code:** 23GDC5L2**Course Title:** NUTRITION PRACTICAL

On successful completion of the course, the learners should be able to

CLO1[K2]	demonstrate the application of various analytical instruments and equipment.
CLO2[K3]	estimate the nutrient contents in food by different analytical techniques
CLO3 K4]	examine the suitable techniques to perform qualitative and quantitative analysis of various nutrients.
CLO4[K5]	evaluate the quality of the given food by nutrient analysis.
CLO5[K6]	predict the nutrient contents by qualitative methods.

CORE COURSE**Course Code:** 23GDC5P**Course Title:** PROJECT WITH VIVA - VOCE

On successful completion of the course, the learners should be able to

CLO1[K2]	outline the area of research methods and need for the research.
CLO2[K3]	find the solution for research problems by applying the knowledge on Nutrition and Dietetics
CLO3 K4]	examine research techniques and ideas to make desirable outcome.
CLO4[K5]	interpret the results after assessing the case study of the patients, nutritional needs of the community and quality of foods.
CLO5[K6]	compose the results and findings for the selected topics and prepare project report.

DISCIPLINE SPECIFIC ELECTIVE COURSE

Course Code: 23GDDE51

Course Title: PUBLIC HEALTH NUTRITION

On successful completion of the course, the learners should be able to

CLO1[K2]	describe the nutritional problems affecting the community.
CLO2[K3]	select the suitable assessment methods to study the prevalence of the nutritional problems of the community.
CLO3 K4]	analyze the role of national and international agencies in prevention of nutritional problems.
CLO4[K5]	interpret the role of various organizations in combating nutritional problems.
CLO5[K6]	design a nutrition education program for the community to reduce the nutritional problems.

DISCIPLINE SPECIFIC ELECTIVE COURSE

Course Code: 23GDDE52

Course Title: NUTRITION EDUCATION & COMMUNICATION

On successful completion of the course, the learners should be able to

CLO1[K2]	explain the nutritional problems affecting the community.
CLO2[K3]	apply the communication strategies to promote positive change needed for a healthy lifestyle.
CLO3 K4]	analyze the objectives of public health policies and programs offered by various agencies.
CLO4[K5]	appraise good communication skills needed for the conduct of the nutrition education programs.
CLO5[K6]	develop skills pertaining to assessment of the nutritional status of the individual.

DISCIPLINE SPECIFIC ELECTIVE COURSE

Course Code: 23GDDE53

Course Title: FIBRE TO FABRIC

On successful completion of the course, the learners should be able to

CLO1[K2]	explain the manufacturing process of man-made fibres, yarn construction and fabric construction.
CLO2[K3]	identify the properties of fibres, yarns and fabrics.
CLO3 K4]	categorize the fibres, yarns and fabrics for its appropriate end use.
CLO4[K5]	assess the sequence of developing fibres into yarns and fabric.
CLO5[K6]	compile the concept of textile fibres, yarns and fabrics.

DISCIPLINE SPECIFIC ELECTIVE COURSE

Course Code: 23GDDE54

Course Title: TEXTILES AND CLOTHING

On successful completion of the course, the learners should be able to

CLO1[K2]	describe the concept of different types of dye, methods of dyeing and printing, traditional textiles to enhance the appearance of the fabric.
CLO2[K3]	identify the process of converting fiber into yarn, fabric and non-woven materials.
CLO3 K4]	inspect the quality of clothing based on the people's choice.
CLO4[K5]	assess the selection and care of clothing for different age and occasion.
CLO5[K6]	develop skills to plan and organize the wardrobe.

CORE COURSE**Course Code:** 23GDIN51**Course Title:** INTERNSHIP

On successful completion of the course, the learners should be able to

CLO1[K2]	relate the class room theory with work place practice.
CLO2[K3]	apply the practices / procedures observed in real time working environment.
CLO3 K4]	analyze the workflow and communication flow prevailing in the institution/industry.
CLO4[K5]	assess the interests and abilities in their field of study.
CLO5[K6]	propose strategies, policies and guidelines for enhancing efficiency of industrial/institutional operations.

CORE COURSE**Course Code:** 23GDC61**Course Title:** FOOD MICROBIOLOGY

On successful completion of the course, the learners should be able to

CLO1[K2]	summarize the characteristics of microorganisms in food and its environment and the methods of control.
CLO2[K3]	identify the microorganism which cause food spoilage, diseases and the methods to control the food spoilage, to prevent infections and intoxications.
CLO3 K4]	categorize the characteristics between organisms that are beneficial from those causing spoilage of food and infection to humans.
CLO4[K5]	interpret the methods of control, prevention and removal of spoilage in various foods.
CLO5[K6]	compile the role of microbes in food industry and human health.

CORE COURSE

Course Code: 23GDC62

Course Title: FOOD SAFETY AND QUALITY CONTROL

On successful completion of the course, the learners should be able to

CLO1[K2]	discuss the concept of food laws, quality control, food safety and standards.
CLO2[K3]	apply the food evaluation techniques to assess the quality of various food.
CLO3 K4]	inspect the food safety with reference to FSSAI regulations and Licensing.
CLO4[K5]	inspect the food safety with reference to FSSAI regulations and Licensing.
CLO5[K6]	inspect the food safety with reference to FSSAI regulations and Licensing.

CORE COURSE

Course Code: 23GDC6L1

Course Title: FOOD QUALITY ANALYSIS PRACTICAL

On successful completion of the course, the learners should be able to

CLO1[K2]	demonstrate the preparation of media and staining techniques for bacteria
CLO2[K3]	identify the adulterants present in coffee, milk, oil, ghee and honey
CLO3 K4]	analyze the quality of foods by using sensory parameters.
CLO4[K5]	evaluate the food samples for the presence of gluten, preservatives and synthetic food colors.
CLO5[K6]	develop skills in the microbial and sensory analysis of foods.

CORE COURSE

Course Code: 23GDC6L2

Course Title: FOOD AND BEVERAGE
PRACTICAL

On successful completion of the course, the learners should be able to

CLO1[K2]	outline the selection and types of equipment and menu.
CLO2[K3]	apply the various procedures and types involved in table setting.
CLO3 K4]	plan and prepare menu for various occasion.
CLO4[K5]	evaluate the cost for every standardized food items and cost control
CLO5[K6]	create various recipes using various food groups by adapting entrepreneurial skills through quality cooking, preparation, organization.

DISCIPLINE SPECIFIC ELECTIVE COURSE

Course Code: 23GDDE61

Course Title: SPORTS NUTRITION

On successful completion of the course, the learners should be able to

CLO1[K2]	elaborate the terms related to physical fitness, nutrients and supplements for exercise.
CLO2[K3]	apply the benefits of different exercise for the significance of body composition parameters.
CLO3 K4]	analyze the role of energy pathways, macro and micronutrients and sports supplements used by athletes to improve performance.
CLO4[K5]	assess the functions of nutrients before, during and after exercise.
CLO5[K6]	formulate the pre event, post event meals and sports drink based on the requirements of different sports.

DISCIPLINE SPECIFIC ELECTIVE COURSE

Course Code: 23GDDE62

Course Title: FUNCTIONAL FOODS &
CHRONIC DISEASES

On successful completion of the course, the learners should be able to

CLO1[K2]	Summarize the components of functional foods and their health benefits.
CLO2[K3]	find out different functional foods, properties, and their functions.
CLO3 K4]	analyze the impact of functional foods in the prevention and management of chronic diseases.
CLO4[K5]	evaluate the role of functional foods in the prevention and management of degenerative diseases.
CLO5[K6]	compile the significance of functional foods in the prevention and management of chronic diseases.

DISCIPLINE SPECIFIC ELECTIVE COURSE

Course Code: 23GDDE63

Course Title: QUANTITY FOOD PRODUCTION
AND SERVICE

On successful completion of the course, the learners should be able to

CLO1[K2]	differentiate the types of food service sectors.
CLO2[K3]	apply skills to formulate and standardize recipes from various cuisines.
CLO3 K4]	analyze the process and techniques involved in quantity food production.
CLO4[K5]	interpret the various styles of service, the basic technical skills, and interpersonal skills required for food service.
CLO5[K6]	develop skills for the entrepreneurial ventures in food production and service.

DISCIPLINE SPECIFIC ELECTIVE COURSE

Course Code: 23GDDE64

Course Title: FOOD SERVICE MANAGEMENT

On successful completion of the course, the learners should be able to

CLO1[K2]	explain the principles, tools of management to ensure for effective functioning of organization.
CLO2[K3]	apply the managerial skills to select, train, appraise the human resources.
CLO3 K4]	analyze the use and operation of equipment and acquire skills in the selection of equipment, sketch sample lay out of the food service units.
CLO4[K5]	interpret and implement food safety and environmental sanitation in the workspace.
CLO5[K6]	integrate the basic concept of book keeping and elements of cost to assess the financial viability of the organization.

Non Major Elective

Course Code: 23GDNE11

Course Title: INTRODUCTION TO FOOD AND NUTRITION

On successful completion of the course, the learners should be able to

CLO1[K2]	outline the basic concept of food, cooking, nutrition and nutrients.
CLO2[K3]	identify the different methods of cooking, classification, functions and sources of various nutrients.
CLO3 K4]	analyze the nutrients present in various food materials.
CLO4[K5]	assess the knowledge about nutrients and methods of cooking in day to day life.
CLO5[K6]	formulate the energy requirement based on the BMR.

SELF EMPLOYMENT COURSE

Course Code: 23GSE48

Course Title: FOOD PROCESSING AND PREPARATION

On successful completion of the course, the learners should be able to

CLO1[K2]	outline the concept, role and importance of food processing and preservation.
CLO2[K3]	apply the various methods to prepare dehydrated products and candies.
CLO3 K4]	analyze the procedure involved in the preparation of pickles, vathal, vadam, jam, jelly, sauce and squashes.
CLO4[K5]	categorize the packaging, labeling and marketing methods of different food products.
CLO5[K6]	develop entrepreneurial skills in the processed foods.

Non Major Elective

Course Code: 23GDNE21

Course Title: WOMEN'S HEALTH AND WELLNESS

On successful completion of the course, the learners should be able to

CLO1[K2]	explain the terms related to nutrition, physical, reproductive, mental and social health.
CLO2[K3]	identify the need for right nutrition, exercises needed for the overall well-being of women.
CLO3 K4]	analyze the significance of maintaining physical, reproductive, and mental health for the overall well-being of women.
CLO4[K5]	recommend strategies to improve women's health in a holistic manner.
CLO5[K6]	compile the simple measures for a healthy lifestyle.

SELF EMPLOYMENT COURSE

Course Code: 23GSE48L

Course Title: FOOD PREPARATION
PRACTICAL

On successful completion of the course, the learners should be able to

CLO1[K2]	demonstrate the preparation of dehydrated products.
CLO2[K3]	apply the preservation techniques in the preparation of various preserved foods.
CLO3 K4]	analyze the appropriate preservation methods for various food products.
CLO4[K5]	interpret the suitable technique for utilization of food materials for increased shelf life.
CLO5[K6]	generalize the processed foods among the community by adopting entrepreneurial skills.