



FATIMA COLLEGE

(Autonomous)

Affiliated to Madurai Kamaraj University
Re-Accredited with 'A++' by NAAC (Cycle - IV)
Mary Land, Madurai - 625018, Tamil Nadu

AQAR – QUALITATIVE METRIC

2022 - 2023

Criterion 1 - Curricular Aspects

1.1.1 Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme outcomes (POs), Programme specific outcomes (PSOs) and Course Outcomes (COs), of the Programmes offered by the Institution.

Name of the Programme: M.Sc., Human Nutrition and Nutraceuticals

Programme Outcomes:

PO1	Scientific knowledge in the thrust areas of Foods, Nutrition and Nutraceuticals.
PO2	Acquisition of skills in the qualitative and quantitative analysis of blood and urine and nutrient analysis of various foods.
PO3	Professional competence in planning normal and therapeutic diets and counselling.
PO4	Social responsibility by participating in community health programs.
PO5	Enterprising by developing innovative value added food products.

Programme Specific Outcomes:

PSO 1	PSO1: Advanced scientific knowledge in food, nutrition and nutraceuticals
--------------	---



FATIMA COLLEGE

(Autonomous)

Affiliated to Madurai Kamaraj University
Re-Accredited with 'A++' by NAAC (Cycle - IV)
Mary Land, Madurai - 625018, Tamil Nadu

PSO 2	PSO2: Professional competence in planning therapeutic diets and counselling
PSO 3	PSO3: Social responsibilities by participating in community health programmes
PSO 4	PSO4: Enterprising – by developing innovative value added food products
PSO 5	PSO5: Environmental concerns – by understanding the role of microbes in human health and diseases
PSO 6	PSO6: Acquisition of skills in analysing food components and blood constituents
PSO 7	PSO7: Desire for knowing more about nutraceuticals from familiar and unfamiliar foods
PSO 8	PSO8: Creative thinking in choosing the appropriate research design

Course Outcomes:

Course Code	Course Title	Nature of the Course (Local/National/Regional/Global)	Course Description	Course Outcomes
19PG1N1	Advanced Human	Local/National	The course provides	Recall the functions of



FATIMA COLLEGE

(Autonomous)

Affiliated to Madurai Kamaraj University
Re-Accredited with 'A++' by NAAC (Cycle - IV)
Mary Land, Madurai - 625018, Tamil Nadu

	Nutrition	/	the knowledge on classification, functions, metabolism and deficiency of macro and micro nutrients and its interrelationship.	nutrients in human body. Explain the digestion, absorption, sources & requirements of different nutrients Compare the energy value of foods by using different calorimetry Build the knowledge of nutrient and drug interrelationship 5.Summarize the importance of fluid and electrolyte balance in human body
19PG1N2	Advanced Dietetics	Local/National / Regional/	The course explains the medical nutrition therapy for normal life cycle, common	The students will be able to Describe nutritional care process Recognize the nutritional needs



FATIMA COLLEGE

(Autonomous)

Affiliated to Madurai Kamaraj University
Re-Accredited with 'A++' by NAAC (Cycle - IV)
 Mary Land, Madurai - 625018, Tamil Nadu

			diseases, and special conditions like sports, space, deep sea and air travel.	of different stages of life cycle Explain medical nutritional management. Plan therapeutic interventions for traumatic conditions. Categorize meal planning for sports, sea and air travel.
19PG1N3	Applied Physiology	Local/National / Regional/	The course provides a detailed insight on the anatomy and functions of the various systems of the human body.	Describe the functions of blood and endocrine system Illustrate the anatomy and functions of circulatory system Identify the role of digestive and excretory systems Analyse the mechanism of musculoskeletal and respiratory systems Explain the structure and functions of nervous and



FATIMA COLLEGE

(Autonomous)

Affiliated to Madurai Kamaraj University
Re-Accredited with 'A++' by NAAC (Cycle - IV)
Mary Land, Madurai - 625018, Tamil Nadu

				reproductive systems
19PG1N4	Advanced Dietetics Lab	Local/National / Regional/	The practical course offers hands-on experience in the planning, preparation and calculation of nutrients for the menu planned for various stages of normal life cycle, deficiency disorders, hospital diets, sports and space nutrition.	Discuss and prepare menu for normal life cycle Select appropriate supplementary foods for infants. Prepare modified diets for nutritional deficiency disorders. Categorize hospital diets.



FATIMA COLLEGE

(Autonomous)

Affiliated to Madurai Kamaraj University
Re-Accredited with 'A++' by NAAC (Cycle - IV)
 Mary Land, Madurai - 625018, Tamil Nadu

19PG1N5	Clinical Laboratory Techniques Lab	Local/National / Regional/	The course provides hands on training on the estimation of the qualitative and quantitative analysis of blood and urine constituents.	Trace the organic, inorganic and abnormal constituents of urine
				Interpret the quantitative analysis of urine Estimate the haematological examination Analyse the blood glucose and lipid profile Assess the serum constituents



FATIMA COLLEGE

(Autonomous)

Affiliated to Madurai Kamaraj University
Re-Accredited with 'A++' by NAAC (Cycle - IV)
 Mary Land, Madurai - 625018, Tamil Nadu

19PGNED C1	Nutrition & Dietetics	Local/National / Regional/	This course offers the scientific understanding of how nutrition can impact the health of individuals and the role of diet in treatment of diseases.	Define the different terms in nutrition and food. Classify the food and nutrients Describe the functions of macro and micro nutrients. Choose the food sources of micro and macronutrients Illustrate food pyramid and explain the food groups.
19PG2N6	Clinical Nutrition & Diet Therapy	Local/National / Regional	The course provides a comprehensive knowledge required for the prevention and treatment of	The students will be able to Identify the characteristics of various disease conditions. Describe the medical nutritional management of



FATIMA COLLEGE

(Autonomous)

Affiliated to Madurai Kamaraj University
Re-Accredited with 'A++' by NAAC (Cycle - IV)
Mary Land, Madurai - 625018, Tamil Nadu

			various diseases	different disease. Plan diets for degenerative diseases. Categorize the foods used in the treatment of diseases. Summarize the treatment strategies for food allergy and food intolerance.
19PG2N7	Functional Foods and Nutraceuticals	Local/National / Regional/	The course contents are an eye opener to students on the terminologies, importance, therapeutic applications of nutraceuticals from sources through plant, animal and	Discuss and understand the concepts of functional foods. Identify the role of prebiotics, probiotics & synbiotics as functional ingredients.



FATIMA COLLEGE

(Autonomous)

Affiliated to Madurai Kamaraj University
Re-Accredited with 'A++' by NAAC (Cycle - IV)
Mary Land, Madurai - 625018, Tamil Nadu

			microbes.	
19PG2N8	Research Methodology	National	The course provides a detailed insight on the types of research, methods of collecting data, sampling techniques, framing hypothesis and ultimately preparing the research report	Classify the types of research based on intent and methods Summarize the significance and formulation of research
				Categorize the sampling techniques



FATIMA COLLEGE

(Autonomous)

Affiliated to Madurai Kamaraj University
Re-Accredited with 'A++' by NAAC (Cycle - IV)
 Mary Land, Madurai - 625018, Tamil Nadu

19PG2N9	Clinical Nutrition and Diet Therapy Lab	Local/National / Regional/	The course provides skill in assessment, estimation of nutritional requirement, planning and evaluation of menus for various diseases.	Demonstrate therapeutic diet for cardiovascular disorders. Associate the dietary principles for the planning and preparation of diet for metabolic disorders. Plan diets for the management of gastrointestinal diseases.
19PG2N10	Functional Foods and Nutraceutical Lab	Local/National / Regional/	The practical course provides hands –on training in the use of hi-tech precision equipments to identify and analyze the specific nutraceuticals	Estimate the lycopene content in fruits. Compare the tannin content present in different foods. Identify the capsaicin content in foods. Test for qualitative analysis of phenols, tannins and saponins in foods. Determine the qualitative analysis of



FATIMA COLLEGE

(Autonomous)

Affiliated to Madurai Kamaraj University
Re-Accredited with 'A++' by NAAC (Cycle - IV)
Mary Land, Madurai - 625018, Tamil Nadu

			present in the respective functional food	flavonoids, anthocyanin & phytosterols
19PG3N1 1	Functional Foods & Nutraceuticals in Preventive Dietetics	Local/National / Regional/	The course elicits the role of various bioactive components in the prevention and treatment of therapeutic conditions.	Explain the role of functional foods and nutraceuticals in oral, gut and renal health. Describe the importance of functional foods in weight management and CVD.
19PG3N1 2	Community Nutrition	National	The course imparts the knowledge on various national nutritional problems and its implications,	Associate Nutrition and National development Describe the strategies to overcome malnutrition Identify the Nutrition intervention programs and



FATIMA COLLEGE

(Autonomous)

Affiliated to Madurai Kamaraj University
Re-Accredited with 'A++' by NAAC (Cycle - IV)
 Mary Land, Madurai - 625018, Tamil Nadu

			nutrition awareness among various sections of the population.	organizationAnalyze the National nutrition policy and Nutrition surveillance system
19PG3N13	Analytical Instrumentation	Local/National / Regional/	The course offers the understanding of the principles, instrumentation and analytical techniques of food	Explain the principle and instrumentation of chromatographySummarize the working procedure of electrophoresisApply the principle, procedure and application of Photoelectric Colorimeters, Fluorimeters and Microbiological assaysAnalyze the types of Spectrophotometry its principle, procedure and applicationExplain the different types of pH isotopes,



FATIMA COLLEGE

(Autonomous)

Affiliated to Madurai Kamaraj University
Re-Accredited with 'A++' by NAAC (Cycle - IV)
Mary Land, Madurai - 625018, Tamil Nadu

				buffers and its application
19PG3NE 1	Food Product Development and Sensory Evaluation	Local/National / Regional/	This course gives in- depth knowledge on the development, evaluation & marketing of food products.	Explain the classification, characteristics and future trends in food product development Choose the different sensory tests employed for food evaluation
19PG3NE2	Institutional Management	Local/National / Regional/	The course will describe the concepts of organization and management approaches of food service	Outline the key areas of food service institutions. Discuss the theories and concepts of institutional management. Determine the scope and theories of personnel management.



FATIMA COLLEGE

(Autonomous)

Affiliated to Madurai Kamaraj University
Re-Accredited with 'A++' by NAAC (Cycle - IV)
 Mary Land, Madurai - 625018, Tamil Nadu

			establishment.	
19PG3N1 5	Techniques for Experimental Nutrition Lab	Local/National / Regional/	The practical course provides hands –on training in the use of hi-tech precision equipment to identify and analyze the various nutrients present in the food.	Explain the principles of analytical techniques Examine the amount of free fatty acid and peroxide values in fats and oil Choose the method of analyzing amount of antioxidant present in foods
19PG4N1 6	Food Microbiology	Local/National / Regional/	The course outlines the role of micro-organism in food spoilage, preservation and	Discuss the basic concepts of food microbiology



FATIMA COLLEGE

(Autonomous)

Affiliated to Madurai Kamaraj University
Re-Accredited with 'A++' by NAAC (Cycle - IV)
 Mary Land, Madurai - 625018, Tamil Nadu

			processing.	
				Analyze the contamination, spoilage and food preservation of foods
19PG4N1 7	Nutritional Biochemistry	Local/National / Regional/	The course provides understanding on the structure, metabolism and energetic of macro and micro nutrients and the integration of metabolic systems.	Describe the structure of carbohydrates Discuss protein metabolism Compare the structure and metabolism of RNA & DNA



FATIMA COLLEGE

(Autonomous)

Affiliated to Madurai Kamaraj University

Re-Accredited with 'A++' by NAAC (Cycle - IV)

Mary Land, Madurai - 625018, Tamil Nadu

19PG4N18	Advanced Food Science and Processing Techniques	Local/National / Regional/	The course offers the understanding of processing techniques involved to transform raw ingredients into processed food products for human consumption.	Identify the methods of harvesting & storage of vegetables and fruits Analyze the processing methods of milk & egg products Assess the processing & preservation methods of fleshy foods
19PG4NE3	Food Safety and Quality Control	Local/National / Regional	To enable students Develop approaches to identify food safety hazards in food processing Apply preventive measures and	Define the concept of food safety and food laws. Plan the various quality assurance systems in food industries. Explain the toxicants in animal and plant foods.



FATIMA COLLEGE

(Autonomous)

Affiliated to Madurai Kamaraj University
Re-Accredited with 'A++' by NAAC (Cycle - IV)
Mary Land, Madurai - 625018, Tamil Nadu

			control methods to minimize microbiological hazards and maintain quality of foods. Identify the wide variety of parameters affecting food quality. Develop quality control strategies	
19PG4NE4	Nutrition in Critical Care and Disasters	Local/National / Regional/	The course offers comprehensive knowledge on the assessment and management of nutritional support	Explain nutritional screening, assessment and support system for critically ill Plan special nutrition therapy in critical illness - stress,



FATIMA COLLEGE

(Autonomous)

Affiliated to Madurai Kamaraj University
Re-Accredited with 'A++' by NAAC (Cycle - IV)
Mary Land, Madurai - 625018, Tamil Nadu

			systems for critically ill.	burns, cardiovascular and kidney Examine the special nutrition therapy in gastrointestinal tract surgery and hepatic transplant
19PG4N19	Food Microbiology Lab	Local/National / Regional/	The course gives the clear idea of assessing the microbes present in foods causing spoilage	Describe the microbiological laboratory techniques Select the optimum sterilization and disinfection techniques Analyse the preparation and storage of culture media
19PG4N20	Nutrient Analysis Lab	Local/National / Regional/	The practical course provides hands –on training in the use of hi-tech precision	Estimate the calories and moisture content present in foods.



FATIMA COLLEGE

(Autonomous)

Affiliated to Madurai Kamaraj University
Re-Accredited with 'A++' by NAAC (Cycle - IV)
Mary Land, Madurai - 625018, Tamil Nadu

			equipments to identify and analyze the various nutrients present in the food.	Explain the estimation of acidity and protein content in foods. Calculate the amount of fat present in Nuts and oilseeds.
--	--	--	---	--