



M.E.S MAMPAD COLLEGE (AUTONOMOUS)

MAMPAD COLLEGE P.O, MALAPPURAM, KERALA, INDIA, 676542

Affiliated to University of Calicut

Accredited by NAAC with A grade

Syllabus Year	2020-2021
Department	Food technology
Programme	B.Voc Nutrition Science and Dietetics

Programme outcome.

Sl.No	Programme Outcome
PO1	They should live with moral ethical value and live in the society with responsible citizen
PO2	They should be able to communicate with others effectively
PO3	They should take readily any challenge before them and solve those problems persist
PO4	They must understand the environmental issues and to accept the adaption

Continue adding rows till the POs are completely added.

Programme specific out come

Sl.No	Programme Specific Outcome.
PSO1	They should take care of a person's eating habits so as to improve his/her health.
PSO2	They should take care of either inpatient or outpatient along with medical specialties as clinical nutritionist / dietician
PSO3	They will have to prepares a proper diet for the sportspersons so that they become able to give optimum output in the field.
PSO4	They should put evidence-based skilful conversation and clinical interventions to use so as to safely engage the patients into a health behaviour change.

PS05	They will have to work with government, non-government and government-aided bodies to meet the provided standards of health.
PS06	They should to conduct researches in specific areas of nutrition and dietetics via. Clinical trials and interventions.
PS07	They should work in companies as nutritionist who can work in marketing, quality control, and development.
PS08	They could work for their own in the areas such as Diabetes management, weight management, eating disorder and etc.,

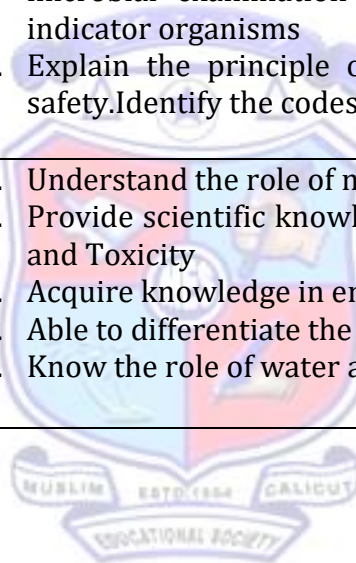
Continue adding rows till the POs are completely added

Course Out come (add sufficient Number of rows in each semester)

Semester	Course Code	Course Name	Course out come
I	SDC1HC01	BASIC NUTRITION	<ol style="list-style-type: none"> 1. Apply basic nutrition knowledge in making foods choices and obtaining an adequate diet 2. Gain knowledge about energy requirements and the Recommended Dietary Allowances. 3. Understand the functions and role of macronutrients, their requirements and the effect of deficiency and excess 4. Analyze the role of various minerals and vitamins important in maintaining health. 5. Appreciate the importance of water and electrolytes in the human body 6. Learns the impact of various functional foods on our health

	SDC1NSD02	Human Physiology	<ol style="list-style-type: none"> 1. Able to understand the composition and functions of blood and lymph 2. Understand the physiology of Respiratory system and Cardiovascular system 3. Able to integrate the physiological functions of the digestive system and excretory system 4. Apply the physiological concepts of the reproductive system and endocrine system 5. Analyse the vital organ functions in respect to maintenance of human health
	SDC1NSD03	Food Science	<ol style="list-style-type: none"> 1. Understand the nutrient content, different stages of milling process and by products of cereals, millets, pulses and oil seeds. 2. Ability to develop various fruit and vegetable products with quality assurance and safety. and Understand principles and methods of preservation of fruits and vegetables. 3. Be able to understand the different processing and preservation methods in milk, meat, poultry, egg and fish. 4. Depict the functions and types of packaging and packaging materials, labelling. 5. The students once they complete their academic projects, shall get an adequate knowledge on patent and copyright for their innovative research works. 6. During their research career, information in patent documents provide useful insight on novelty of their idea from state-of-the art search. This provide further way for developing their idea or innovations

	SDC1NSD04	Food Microbiology	<ol style="list-style-type: none"> 1. Recall the history of microorganisms in food. Identify the microorganisms found in food 2. . Explain the factors that affect microbial growth in food.Discuss microbial spoilage of food.Experiment the techniques in control of food spoilage. List foodborne diseases 3. Differentiate foodborne infection and intoxication.Practice the methods for microbial examination for food.Identify the importance and properties of indicator organisms 4. Explain the principle of quality control.Discuss the role of HACCP in food safety.Identify the codes of good manufacturing practices
	SDC1NSD05	Nutritional Biochemistry	<ol style="list-style-type: none"> 1. Understand the role of nutrients in human health 2. Provide scientific knowledge on the signs and symptoms of nutrient deficiency and Toxicity 3. Acquire knowledge in energy determination and expenditure 4. Able to differentiate the functions and deficiency of vitamins 5. Know the role of water and electrolyte balance in the human body



II	SDC2NSD06	Family Meal Management	<ol style="list-style-type: none"> 1. Learn and apply the latest in research-based nutrient needs of pregnant and lactating females. 2. gains knowledge about the changing nutritional needs of an infant and about complementary feeding. 3. able to relate nutrient needs to developmental stages and plan diets which will adequately meet nutritional needs during childhood. 4. learn the impact of growth and development in arriving at the nutritional needs of adolescents. 5. able to connect the role of changing metabolism, risk of chronic diseases and impact of functional foods in effectively planning diets for adults. 6. gains competence on meeting nutrition needs and establishing dietary patterns to promote optimum health and reducing the impact of chronic diseases in the elderly.
II	SDC2NSD07	Community Nutrition	<ol style="list-style-type: none"> 1. Demonstrate effective and professional oral and written communication and documentation 2. Develop interventions to affect change and enhance wellness in culturally diverse individuals and groups (measured through the grant writing process assignment). 3. Assess the impact of a public policy position on nutrition and dietetics practice. 4. Demonstrate cultural competence/sensitivity to diverse groups and environments. 5. Explain the impact of a public policy position on dietetics practice. 6. Explain the impact of health care policy and different health care delivery systems on food and nutrition services.
	SDC2NSD08(P)	Food Science Practical	<ol style="list-style-type: none"> 1. .apply basic nutrition knowledge in making foods choices and obtaining an adequate diet. 2. gain knowledge about energy requirements and the Recommended Dietary Allowances. 3. understand the functions and role of macronutrients, their requirements and the effect of deficiency and excess

			<ol style="list-style-type: none"> 4. analyze the role of various minerals and vitamins important in maintaining health. 5. appreciate the importance of water and electrolytes in the human body. impact of various functional foods on our health 6. gain competence in connecting the role of various nutrients in maintaining health and learn to enhance traditional recipes.
	SDC2NSD9(P)	Human Physiology Practical	<ol style="list-style-type: none"> 1. By the completion of the course the graduate should able to 2. Know the composition of Blood 3. Understand the features of tissues, muscles and organs. 4. Acquire skills in estimating the haemoglobin and measuring the blood pressure. 5. Determine the normal and abnormal value of blood constituent 6. Demonstrate the organ functions using apparatus.
III	GEC01EVS01	Environmental Science	<ol style="list-style-type: none"> 1. Recall the history of microorganisms in food. Identify the microorganisms found in food 2. Explain the factors that affect microbial growth in food.Discuss microbial spoilage of food.Experiment the techniques in control of food spoilage. List foodborne diseases 3. Differentiate foodborne infection and intoxication.Practice the methods for microbial examination for food.Identify the importance and properties of indicator organisms 4. Explain the principle of quality control.Discuss the role of HACCP in food safety.Identify the codes of good manufacturing practices
	GEC02IET01	Informatics and Emerging trends	
	SDC3 NSD11	Basic Dietetics	<ol style="list-style-type: none"> 1. aware about the role and responsibilities of dietitian and diet counselling process 2. apply various methods and techniques in the therapeutic modification of diet

			<ol style="list-style-type: none"> 3. relate the principles of diet for allergy, burns, obesity, and underweight 4. modify dietary management for gastrointestinal disorder and malabsorption syndrome 5. describe the dietary treatment for liver, gall bladder and pancreatic disorder
	SDC3NSD12	Health Psychology	<ol style="list-style-type: none"> 1. Understand the role of behavior in illness 2. Understand the beliefs that predict behaviors 3. Understand beliefs of health and help these beliefs to be changed
	SDC3NSD13	Health & Fitness	<ol style="list-style-type: none"> 1. Demonstrate an understanding of the physiological benefits of movement, physical activity and wellness. 2. Define principles involved in increasing and maintaining physical fitness. 3. Evaluate and apply fitness and wellness concepts to individual lifestyle. 4. Design, implement, and evaluate personal wellness and fitness programs.
	SDC3NSD14	Hospital Food Service management	<ol style="list-style-type: none"> 1. Understand hospital functions and administration 2. Acquire skills in maintaining medical records 3. Understand the management of resources and food service management in hospitals 4. Plan and execute various managerial roles in a food service management within the hospitals.
IV	GEC03BET01	Bio ethics	
	GEC04DMT01	Disaster Management	
	SDC4NSD15	Nutraceuticals & Functional Foods	<ol style="list-style-type: none"> 1. Describe components of nutraceutical and functional foods 2. Evaluate the standards of evidence required for efficacy and safety assessment of nutraceutical and functional foods 3. Evaluate and compare the regulatory and efficacy-claim controls in India, America, Europe and Asia 4. Explain the regulatory framework required in India and globally for substantiated health claims 5. Work effectively as a group member on a specific problem related to functional foods and nutraceutical products 6. Know the importance of probiotics and prebiotics in human health

IV	SDC4NSD16	Diet Counselling & Patient care	<ol style="list-style-type: none"> 1. Knowledge of basic/introductory nutrition concepts 2. Critical thinking scientific and quantitative reasoning
	SDC4NSD18	Sports Nutrition	<ol style="list-style-type: none"> 1. To acquaint students with the structure, function and interaction of nutrients and the concept of energy to maintain optimal health and fitness. 2. To understand the basic functioning of human body and the role of different organs to maintain homeostasis. 3. Students will be acquainted with nutrients and their timing in sports performance related fitness among athletes 4. Students will be acquainted with nutrients and their timing in sports performance across varying intensities of training
	SDC4NSD17(P)	Nutritional Practical	<ol style="list-style-type: none"> 1. Understand the principles behind in analytical techniques when presented with a practical problem 2. Demonstrate competency in the use of standard techniques of food analysis 3. Apply modern instrumental methods to analyse chemical and physical properties of foods 4. Compare the purposes and methods of food analysis in research, government and food industry
V	SDC5NSD19	Advanced Diet Therapy	<ol style="list-style-type: none"> 1. Describe well about nutrition, bioavailability and the current scenario of deficiency disease 2. Acquire knowledge on the current trends in food science 3. Able to understand the beneficial effects of functional foods 4. Acquire skills in institutional management 5. Analyze the life style disorder and acquire skills in imparting diet counselling
	SDC5NSD20	Statistical Methods for Biology	<ol style="list-style-type: none"> 1. Act as an educated consumer of data 2. Prepare a preliminary research design for projects in their subject matter areas Accurately collect, analyze and report data 3. Present complex data or situations clearly 4. Review and analyze research findings that affect their agency
	SDC5NSD21	Nutrition through Life cycle	<ol style="list-style-type: none"> 1. List factors which will influence nutritional requirements through the life cycle including pregnancy, lactation, infancy, childhood, adolescence, and aging. 2. Explain the interrelation of the biochemical and physiological function of

			<p>nutrients through the life cycle.</p> <ol style="list-style-type: none"> 3. Explain the role nutrition may play in certain disease states in the life cycle. 4. Discuss the criteria of an adequate diet through the life cycle.
	SDC5NSD22	Food Toxicology & Adulteration	<ol style="list-style-type: none"> 1. differentiate between natural constituents that are toxicants and natural contaminants that act as toxicants; 2. differentiate between the various types of toxicants, chemistry, their mode of action, significance, food sources, and possible detoxification methods; and 3. qualitatively and quantitatively analyze for toxicants in food and determine the different toxicity levels.
	SDC5NSD23	Nutrigenomics	<ol style="list-style-type: none"> 1. Know about Functional foods and its sources 2. Understand about the effects of pre & probiotics on human health and potential applications in risk reduction of diseases. 3. Gain knowledge about Herbal Supplements and their effects on health. 4. Interrelations of Nutrigenomics in Human Health. 5. Role of Nutrigenomics and Disease Condition
	SDC5NSD24	Food Hygiene, Public Health & Sanitation	
	SDC5NSD25(P)	Dietetics Practical	<ol style="list-style-type: none"> 1. Assess the nutritional status and support for patient care 2. Apply various methods and techniques in the field of therapeutic nutrition 3. Modify dietary management for Pulmonary and Gastrointestinal disorder 4. Describe the pathophysiology and dietary regimen for liver, gall bladder and pancreatic disorder