

ST JOSEPH'S COLLEGE FOR WOMEN (AUTONOMOUS)

VISAKHAPATNAM

DEPARTMENT OF M.Sc HOME SCIENCE

**Programme Specific Outcomes**

PSO1: Develop the knowledge on role of food and nutrition for the welfare of community. To conduct research in the fields of nutritional studies and interpret the results for the wellbeing of community.

Level of attainment: 84.7%

PSO2: To gain insight in public health and to assess the nutritional status of community. To take up profession in promoting healthy living in the community.

Level of attainment: 87.5%

PSO3: To analyse nutrients, food quality and manage disease using diet therapy. To take a profession in fields of dietetics in hospitals. Establish a own clinic as a dietitian.

Level of attainment: 89.5%

PSO4: To formulate innovative products and develop comprehensive and analytical skills in food industries. Engage in industry internship or gain skills through hands on experience

Level of attainment: 90%

**MSc. Home Science Course outcomes**

semester	Subject	Code	Learning outcomes
I	1.Research methodology	FN1.1	<ol style="list-style-type: none"> <li>1. To define roles of statistics and research in home science.</li> <li>2. To classify different types of research.</li> <li>3. To identify and define a problem.</li> <li>4. To classify, construct, compare the various types of variables.</li> <li>5. The basic concept, classify, apply and to know the functions of theories of probability.</li> <li>6. To construct, demonstrate, experiment with scientific methods and scientific approach.</li> <li>7. To define, construct, and to organize the various methods for collection of data.</li> <li>8. To summarize the basic principles and purpose of research design.</li> <li>9. To measure central tendency and variations in data gathering.</li> <li>10. To create and develop research design.</li> </ol>
Level of attainment: 90.2			
	Research methodology practical	FN1.15	<ol style="list-style-type: none"> <li>1. To develop research design.</li> <li>2. To develop questionnaire, scaling methods.</li> <li>3. To compute mean, media, mode.</li> <li>4. To correlate the research finding with the skills learnt.</li> <li>5. To compute variances, standards and deviations.</li> </ol>

Level of attainment: 75			
	2.Computer application	FN1.2	<ol style="list-style-type: none"> <li>1. To recall desktop setting, creating shortcuts.</li> <li>2. To make use of Ms Excel in creating tables, using formula, graphs.</li> <li>3. To create Power point presentations and applying special effects and setting up a slide show.</li> <li>4. To utilize drawing tools, text tools, in making publications.</li> <li>5. To apply filters, brushes, transformations, layers in making logos.</li> <li>6. To design photos, using various tools in Photoshop.</li> <li>7. To create a webpage using Html.</li> <li>8. To modify graphics on a web page using webpage.</li> <li>9. To compare the concepts of illustrator, coral draw, Photoshop.</li> <li>10. To combine and apply the computer skills in relationship with home science.</li> </ol>
Level of attainment: 88			
	Computer application practical	FN1.25	<ol style="list-style-type: none"> <li>1. To create word document.</li> <li>2. Design tables, in MS-excel.</li> <li>3. To edit photos, using Photoshop.</li> <li>4. Create and upload web design using Html.</li> <li>5. Apply knowledge of computer science in relation to home science.</li> </ol>

Level of attainment: 85			
	3.Physiology	FN 1.3	<ol style="list-style-type: none"> <li>1. To outline about the physiology of human body in relation to different systems and organ functioning.</li> <li>2. To understand the functions of heart and relate to its role in circulation.</li> <li>3. To understand the concept of mechanical disintegration, chemical action and absorption of food.</li> <li>4. To interpret the path of formation of urine and sweat and describing the functions of each organ involved in the process.</li> <li>5. To explain about the structure and function of respiratory organs and abnormalities of respiration.</li> <li>6. Extend the knowledge on the anatomy of male and female reproductive organs.</li> <li>7. To summarise the events of menstrual cycle and role of hormones in reproduction.</li> <li>8. To gain knowledge about structure and functions of nervous system in relation to perception of senses</li> </ol> <p>I. Applying:</p> <p>II. Analysing:</p> <ol style="list-style-type: none"> <li>1. To distinguish the different blood groups and their compatibilities.</li> </ol> <p>III. Evaluating:</p> <p>IV. Creating:</p>

Level of attainment: 88			
	4.Human nutrition	FN 1.4	<ol style="list-style-type: none"> <li>1. To classify signs of good and poor nutritional status.</li> <li>2. Extend knowledge on various nutrients, sources and their functions and deficiencies.</li> <li>3. To summarise the nutritional needs and identify deficiency symptoms of different age groups.</li> <li>4. To make use of food preparation techniques and present in an attractive and appetizing manner.</li> <li>5. To demonstrate and show how to measure and weigh foods.</li> <li>6. To elaborate the relationship between nutrition and health.</li> <li>7. To relate the interrelationship between nutrients.</li> <li>8. To determine BMR, and the factors affecting total energy requirement.</li> <li>9. Learn different methods of cooking based on combination of different food groups.</li> <li>10. To learn about the conditions leading to dehydration and to prepare ORS.</li> <li>11. Acquire knowledge on the preparation of low cost nutritive recipes to eradicate PEM.</li> </ol>
Level of attainment: 88			

II	1.Communication technology	FN 2.1	<ol style="list-style-type: none"> <li>1. To know the concepts, functions of communications.</li> <li>2. To classify, construct, categorize the scope, of mass communication.</li> <li>3. To construct, organize, apply the roles of gatekeeper and its function in opinion leaders.</li> <li>4. To summarize, construct, solve, simplify the contemporary issues in media.</li> <li>5. To relate the issues in reaching out to the target groups.</li> <li>6. To experimental with various roles on enhancing cultural heritage.</li> <li>7. To translate the various electronic media like radio, television.</li> <li>8. To demonstrate, organize and plan an outdoor media like exhibitions, fairs etc.</li> <li>9. To recall the introduction and apply the ethics in mass media, freedom of speech.</li> <li>10. To apply, analyse the various principles of visual design like colour, line, texture etc.</li> <li>11. To recall, classify and apply basic concepts of multimedia, its application, systems.</li> <li>12. To acquire knowledge on Animations and Graphics using 3d studios.</li> <li>13. To define graphics and its importance.</li> <li>14. To design animations using various controls.</li> <li>15. To apply, utilize the international media</li> </ol>
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			like email, internet, video conferencing, microphone etc.
Level of attainment: 80			
	Communication technology practical	FN 2.15	<ol style="list-style-type: none"> <li>1. Design visual book cover with the help of computers.</li> <li>2. Construct advertisement and promote about a nutritive centre.</li> <li>3. Design the logos for a company and promoting it.</li> <li>4. Create individual project on 3D studio max.</li> <li>5. To evaluate outdoor &amp; print media systems.</li> </ol>
Level of attainment: 85			
	2.Nutritional Epidemiology	FN 2.2	<ol style="list-style-type: none"> <li>1. To define the term epidemiology.</li> <li>2. To classify the various branches of epidemiology.</li> <li>3. To identify the types of epidemiology and its importance in community health.</li> <li>4. To design, plan, organize and select the information through various modes of collection of data.</li> <li>5. To develop the pattern of disease, construct and compare the various patterns of disease.</li> <li>6. To acquire knowledge on principles of nutritional epidemiology.</li> <li>7. To evaluate and summarize the measurements issues, disease, and its exposure outcomes.</li> </ol>

			<ol style="list-style-type: none"> <li>8. To apply, evaluate the assessment and categorize the food consumptions, intake and validation of assessment.</li> <li>9. To asses, evaluate, infer the biochemical in nutritional status.</li> <li>10. To evaluate, categorize, examine the various anthropometric measurements.</li> <li>11. To design and plan the nutritional epidemiology studies.</li> <li>12. To assess, apply and evaluate the case studies.</li> </ol>
Level of attainment: 82			
	Community nutrition practical	FN 2.25	<ol style="list-style-type: none"> <li>1. To realise the health problems of the community.</li> <li>2. To extend the knowledge on working on PHC.</li> <li>3. To interview lactating and pregnant women about current feeding practise.</li> <li>4. To evaluate health services and health system research.</li> <li>5. Outline the cause effect of global warming and manmade disaster.</li> </ol>
Level of attainment: 97			
	3.Food science & chemistry	FN 2.3	<ol style="list-style-type: none"> <li>1. To explain the importance and classifications of food and their nutrients.</li> <li>2. To relate the concept of genetically modified foods with present trends.</li> <li>3. To formulate the skills in different</li> </ol>



			<p>methods of cooking.</p> <ol style="list-style-type: none"> <li>4. To interpret the advantages and disadvantages of different methods of cooking</li> <li>5. To elaborate about the usage and importance of microwave and solar cooking.</li> <li>6. To explain the structure and composition of the different food groups.</li> <li>7. To extend the knowledge about the products of different food groups, their storage measures.</li> <li>8. To categorise the problems, diseases related to different food groups and food borne illness.</li> <li>9. To compare and learn the nutritive value of different food groups.</li> <li>10. To discover the effect of food additives, concepts of food adulterations and different acts and measures in India.</li> <li>11. Gain knowledge about food preservatives techniques, their scope and significance</li> </ol>
Level of attainment: 83			
	Food science & chemistry Practical	FN 2.35	<ol style="list-style-type: none"> <li>1. To analyse the solubility of sugars and sugar cookery.</li> <li>2. Demonstrate the role of acid, pectin and sugar in jams and jelly.</li> <li>3. To assess the plasticity of fats and fat</li> </ol>

			<p>crystals.</p> <ol style="list-style-type: none"> <li>4. To categorize the factors affecting ice crystal formation.</li> <li>5. To identify the importance of microorganisms in food processing.</li> </ol>
Level of attainment: 85			
	4.FOOD MICROBIOLOGY-	FN 2.4	<ol style="list-style-type: none"> <li>1. To learn about history of microbiology.</li> <li>2. To know about the different microorganisms in food and their toxicity.</li> <li>3. To relate the source of microorganism in food and infection caused by food.</li> <li>4. To understand and learn the concept of sterilization and disinfectant techniques and uses.</li> <li>5. Comprehend the knowledge about the different parameters that effect the survival of microorganisms.</li> <li>6. To get familiarize with the methods of preservation of foods.</li> <li>7. To learn about different staining techniques and isolation methods.</li> <li>8. To understand the importance of personal and work place hygiene.</li> <li>9. To know about the microbiological analyses and assessment of commonly used media and compare with indices.</li> <li>10. To apprehend the importance of microbes in food preparation and fermentations.</li> </ol>

Level of attainment: 80			
	FOOD MICROBIOLOGY- practical	FN 2.45	<ol style="list-style-type: none"> <li>1. To apply the knowledge on cultivation of bacteria, yeast, molds.</li> <li>2. To classify isolation methods and apply the different streaking methods for cultivation of microorganisms.</li> <li>3. To examine the morphological identification of important molds and yeast.</li> <li>4. To relate the study of various sources of transmission of microorganisms in foods.</li> <li>5. To demonstrate the various sampling methods of air, water, sewage, soil.</li> <li>6. Demonstration of microbial analysis of water, milk, food.</li> <li>7. Assessment of kitchen surface sanitation by swab rinse.</li> </ol>
Level of attainment: 83			
III	1.Sensory evaluation	FN 3.1	<ol style="list-style-type: none"> <li>1. To recall sensory analyses and use sensory tests.</li> <li>2. To explain neural networks in sensory perception.</li> <li>3. To develop general testing conditions.</li> <li>4. To identify and select test subjects.</li> <li>5. To design and train panel members.</li> <li>6. To formulate different types of tests in sensory evaluations.</li> <li>7. To design questionnaires for sensory evaluation.</li> </ol>

			<ol style="list-style-type: none"> <li>8. To evaluate scorecards.</li> <li>9. To interpret the data and analyse it.</li> <li>10. To analyse consumers acceptable</li> <li>11. Gain knowledge on sensory attributes and prepare a scorecard.</li> </ol>
Level of attainment:83			
	Sensory evaluation Practical	FN 3.15	<ol style="list-style-type: none"> <li>1. To plan sensory experiment and train panellist.</li> <li>2. To design questionnaire and score cards to assess the food products.</li> <li>3. To evaluate permanent &amp; temporary sensory testing facilities.</li> <li>4. To prepare samples and product oriented tests.</li> <li>5. To collect and analyses sensory data and statistical analysis.</li> </ol>
Level of attainment: 92			
	2. Maternal and child nutrition	FN 3.3	<ol style="list-style-type: none"> <li>1. To analyse current nutritional health status of women in India.</li> <li>2. To understand the importance of nutrition prior and during pregnancy.</li> <li>3. To evaluate short and long term health outcomes during pregnancy.</li> <li>4. To explain development of mammary tissue and role of hormones.</li> <li>5. To extend the knowledge on intrauterine growth retardation, congenital malformation, foetal alcohol syndrome and gestational diabetes mellitus.</li> </ol>

			<ol style="list-style-type: none"> <li>6. To determine the importance of baby friendly hospitals initiatives.</li> <li>7. To discuss the concept small family and methods of family planning.</li> <li>8. To survey the policies of the programs for promoting maternal and child health.</li> <li>9. To demonstrate weaning food in the community's.</li> <li>10. To apply, utilize and demonstration the usage of sterilization of feed bottles.</li> <li>11. To assess the growth monitoring of the infants.</li> </ol>
Level of attainment:93			
	Maternal and child nutrition practical	FN 3.35	<ol style="list-style-type: none"> <li>1. To plan and prepare diets for pregnant women to different income groups.</li> <li>2. Plan and prepare diets for lactating women to different income group.</li> <li>3. To analyses the food and nutrition related practices prevalent in the community.</li> <li>4. To assess the growth monitoring of children.</li> <li>5. To prepare homemade weaning foods and compare commercial formulas.</li> </ol>
Level of attainment: 90			
	3.DIETETICS	FN 3.4	<ol style="list-style-type: none"> <li>1. Learn about the roles and responsibilities of dietitian, code of ethics assessment and diet planning.</li> <li>2. Learn and gain knowledge and develop skill in planning and preparation of therapeutic diets.</li> </ol>

			<ol style="list-style-type: none"> <li>3. Routine hospital diets and special feeding methods during critical care.</li> <li>4. The metabolic changes, clinical manifestation of life -style and degenerative diseases.</li> <li>5. Diets during infection and all types of fevers.</li> <li>6. Prevalence, aetiology principles of dietary management and treatment of life styles disease.</li> <li>7. How to plan diets using food exchange list.</li> <li>8. Relate the planning of diet and diet counselling to aetiology and symptoms.</li> <li>9. Learn about pre-operative and post-operative diets</li> <li>10. Learn about prebiotics and probiotics, functional foods nutraceuticals and prevention of disease.</li> </ol>
Level of attainment: 94			
	DIETETICS practical	FN 3.45	<ol style="list-style-type: none"> <li>1. To recall and relate the planning the diet and diet counselling.</li> <li>2. To apply knowledge on routine hospital diet.</li> <li>3. To understand the different life style disorders and plan a diet accordingly.</li> <li>4. To organize a counselling cell to council the students and faculty on their disorders.</li> <li>5. To select the various case studies and apply in the preparation the diet.</li> </ol>

			<p>6. To assess the anthropometric measurement and check their BMI and identify their grades of obesity.</p> <p>7. To understand and plan a special feeding diet.</p>
Level of attainment: 91			
	4.BIOCHEMISTRY	FN 3.2	<p>11. To determine the chemical structure of major nutrients.</p> <p>12. To summarise the knowledge on roles of nutrients in human metabolism.</p> <p>13. To define the various structure and metabolism of protein.</p> <p>14. To compile the knowledge on digestion, absorption of nutrients in health.</p> <p>15. Outline the metabolic pathway, which is involved in metabolism of nutrients in human body.</p> <p>16. To explain the importance of principles of biochemical methods.</p> <p>17. To prove the presence of ascorbic acid in food.</p> <p>18. Understands the qualitative and quantitative food analyses.</p> <p>19. To discuss about how energy metabolism varies between tissues.</p> <p>20. Various functions of nutrients in the cell.</p>
Level of attainment: 96			
	4.BIOCHEMISTRY	FN2.25	1. Understand the principles pf

	practical		<p>biochemical methods.</p> <ol style="list-style-type: none"> <li>2. Analysis of food and biological samples.</li> <li>3. To formulate biochemical analysis for glucose, cholesterol, proteins, ascorbic acid.</li> <li>4. To understand the methods used for blood or serum.</li> <li>5. To understand and examine of urea, creatinine in serum.</li> </ol>
Level of attainment: 91			
IV	Internship	FN 4.25	<ol style="list-style-type: none"> <li>1. To enable the students to acquire in depth understanding of practical aspects of knowledge</li> <li>2. To apply skills during the course work in the relevant subject.</li> <li>3. To gain hands-on on experience for higher professions in their area of expertise.</li> <li>4. To develop analytical abilities for situational analysis.</li> <li>5. To provide support in pursuing a professional career.</li> </ol>
Level of attainment: 90			
	Dissertation		
Level of attainment: 90			



