MUGBERIA GANGADHAR MAHAVIDYALAYA
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PROGRAMME OUTCOME (PO), COURSE OUTCOME (CO) AND PROGRAMME SPECIFIC OUTCOME (PSO) FOR FINAL YEAR STUDENTS UNDERGRADUATE COURSE: 2018-2019

Programme Name: B. SC. Honours (NUTRITION)

PROGRAMME OUTCOMES (PO):

PO1	Interdisciplinary Knowledge	Apply the knowledge of nutrition, dietetics, food sciences, nutritional physiology, nutritional biochemistry, nutritional biophysics, research methodology, statistics, epidemiology, demography, immunology, molecular biology, nutrigenomics, metabolomic and epigenetic to the solution of health problems.
PO2	Problem Analysis	Identify, formulate, research literature, and analyze complex health problems and searching out the solutions by applying the modified foods and nutrients to mitigate the problems.
PO3	Conduct Investigations of Complex Problems	Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions regarding nutrition solving diseases.
PO4	Modern Tool usage	Food is first line medicine, the nutritional sciences have long benefited from the intellectual and pragmatic input of ideas and techniques from other medicinal and pharmaceuticals disciplines.
PO5	The Nutritionist and Society	Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional dietitian practice.
PO6	Ethical Values	Students will be able to discuss the ethical implications of our understanding of nutrition and nutritional discoveries and to develop the culture of value-based thinking, understand the pros and cons while taking decisions, and lead a sound value based ethical life.
PO7	Research & Life-long Learning	Students will be able to demonstrate a depth of knowledge within their area of study and a breadth of knowledge across the field of nutrition. Students will be able to design and complete a research study and/or scientific experiments.
PO8	Familiarity with Recent Developments	Students will able to gathered recent knowledge in different practicaltechniques regarding nutrigenomics.
PO9	Ability in Creative Skills	Students will be able to discuss and practice professional standards of scientific inquiry and responsible conduct of scientists that are essential for the pursuit of new knowledge. Students will be able to process and analyze data to make sound interpretations.

PO10	Environmental Awareness & Sustainability	Students will able to understand and aware the importance of environment in our life. Students will able to understand and aware the community regarding the environmental pollution and their management. A beautiful forest-like campus that provides gorgeous scenery, and a quiet and comfortable learning environment.

PROGRAMME SPECIFIC OUTCOME (PSO):

PSO 1: To make students learn nutrition and apply nutritional knowledge to important public health issues and distribute such knowledge to population.

PSO 2: Students acquire practical knowledge on diet chart and diet planning, computer application, project, internship, data computation and educational excursion.

PSO 3: Students of nutrition will get an idea of various aspects of diseases, dietary Management, menu planning, service style, research, data computation and health statistics and its application.

PSO 4: Nutrition graduates have ample scope in academics, higher research institutes, hospital industry, diet clinic, NGO services, food industry, government services and many others.

COURSE OUTCOME (CO):

Paper -VI (7) (Theoretical)

Unit – 11 (Diet Therapy-II)

CO 7:11:1	To know about the general objective, importance, various factors of diet therapy.
CO 7 :11:2	To know about the principle of therapeutic diet and the factors to be considered in planning therapeutic diet in different diseases.
CO 7:11:3	To gain knowledge about various types diseases and their etiology, symptoms, types, dietary management, and included and excluded foods.

Unit 12 (Health statistics, computer application and research methodology)

CO 7:12:1	Understand the basic concept of research, Sampling, data collection method, experimental design.
CO 7:12:2	Understand the basic principles of health statistics, including hypothesis testing, tabulation of data.
CO 7:12:3	To gain knowledge about overall health statistics, measurement of central tendency, standard deviation and standard error and their application on nutrition and public health.
CO 7:12:4	Gain knowledge on computer fundamental and operations like computer viruses, data processing, principle of Programming and their applications.

Paper – VII (7) (practical)

Unit – 13 (Meal Management)

CO 7:13:1	To know about principles of formulation of diet chart and food service management.
CO 7:13:2	Students are able to planning and preparation of diet chart and menu planning for infants, pre-school children and adolescents, pregnant, lactating and nursing mothers from different physical activity and socio-economic status.
CO 7:13:3	To gain knowledge on diet chart and menu planning for elderly people and food service management functions, tools of management and resources.

Unit - 14 (Project, Internship & Educational Excursion)

CO 7:14:1	To know about meaning of scientific research and its methods. Overall idea about internship and educational excursion related higher learning center.
CO 7:14:2	Understand the formulation of the Project and project design and prepared own project application with Statistical procedures.
CO 7:14:3	Students are able to make a report on the basis of internship in a hospital dietary department or diet clinic on basis of patient's information.
CO 7:14:4	To gain experience in the administrative set up of a dietary department and role of dietician in hospital management and uses of different instruments.

Paper – VIII [8] (Practical)

Unit - 15 (DIET THERAPY

CO 7:15:1	To gain knowledge about various types of diet (normal diet, fluid diet, soft diet, high protein diet, low fat and low caloric diet).
CO 7:15:2	Students are able to planning and preparation of various types of diet such as normal diet, fluid diet, soft diet, high protein diet, low fat and low caloric diet.
CO 7:15:3	To gain knowledge about various types of disease and planning the preparation of diets for the following conditions: Peptic Ulcers, Viral Hepatitis, Anaemia, Diabetes Mellitus, CHD, Gout.

Unit - 16 (HEALTH STATISTICS, COMPUTER & ASSIGNMENT PROGRAMME ON RESEARCH METHODOLOGY)

CO 7:16:1	To know about graphical presentation of data, computation of Mean, Median, Mode, SD & SE and Significance of testing by 't' test with interpretation – Paired observation, standard/population mean.
CO 7:16:2	To gain knowledge about the use of microsoft word and excel with specific problem and tabular form of data presentation in computer.
CO 7:16:3	Students are able to make a assignment programme for experimental design of the different fields.
CO 7:16:4	Students are able to make a report on community survey.

DETAILED SYLLABUS OF LAST YEAR UG (HONOURS) COURSES

Paper -VI (Theoretical)

Unit – 11 (DIET THERAPY-II) **Lectures: 50**

1. Diet in disease of the endocrine pancreas : Diabetes Mellitus - Classification, symptoms, diagnosis, management - Insulin therapy, oral hypoglycemic agents, glucose monitoring at home, dietary care and nutritional therapy, meal plan (with and without insulin), special diabetic foods, sweeteners and sugar. substitute.
2. Diseases of the cardiovascular system: Atherosclerosis etiology and risk factors. Hyerlipidemias - brief review of Lipoprotein and their metabolism, classification of hyperlipidemias, clinical and nutritional aspects of hyperlipidemias. Dietary care - Ischemic Heart Diseasenutritional management, Hypertension - etiology, prevalence, nutritional management. Prevention of cardiovascular diseases and diet.
3. Renal Diseases: Classification, etiology, symptoms of Glomerulonephritisdietary management. Acute and Chronic Nephritis-dietary management. Nephritic & Nephrotic syndrome-dietary management. Renal failure and Ureaemia-dietary management. Nephrolithiasis-dietary management. Use of sodium and potassium exchange list.
4. Allergies: Definitions, symptoms, diagnosis and dietary managementfood selection.
5. Inborn error of metabolism – Lactose Intolerance, Galactosamia, Phenyl ketonuria.
6. Anaemias: Pathogenesis and dietary management - Nutritional Anaemias, Sickle Cell Anaemias, Thalassemia, Anaemia resulting from Acute Haemorrhage.

Unit – 12 **Lecture: 50**

(HEALTH STATISTICS, COMPUTER APPLICATION AND RESEARCH METHODOLOGY)

A. Research Methodology

1. General concept of research, types of Research – Exp. research, Action research, Historical research.
2. Sampling – Criteria, Design, Characteristics of good sampling, types of sampling.
3. Data, Data collection method, Criteria of good data, grouped data, ungrouped data.
4. Experimental design – In brief.

B. Health Statistics

1. Definition, Meaning of Importances of Statistics, Bio-statistics, Descriptive and Inferential Statistics, Hypothesis and their types, Level of significance, Critical region and accepting region, Variable and their types.
2. Tabulation of data – Frequency distribution and its types, Cumulative, Bivariate and Multivariate frequency distribution, Graphical presentation of frequency distribution – Histogram, Bar diagram, Polygram, Pie diagram.
3. Measurement of central tendency, standard deviation and standard error –

Definition, Calculation, Kurtosis, Skeness.

4. Test of significance – Null hypothesis, Alternative hypothesis, degree of freedom, t-test – one tail-t test, two tail-t test, pair observation, standard mean of observation, test of significance.

B. Computer

1. Computer fundamental – Basic anatomy of computer, generation of computer, application of computer.
2. Hardware and Software concept – Storage devices, system software, multi programming operating system, multi tasking operating system.
3. Computer viruses: Computer viruses, working of viruses, network viruses, antivirus, common antivirus software.
4. Data Processing – Types of data, types of data processing, step in data processing, application of data processing.
5. Principle of Programming – Programme language approaches.

Paper - VII (practical)

Unit – 13 (MEAL MANAGEMENT)

1. Principles of formulation of diet chart.
2. Diet chart and menu planning for adult .men and women of different physical activity and economic status.
3. Diet chart and menu planning for infants, pre-school children and adolescents from different socio-economic status.
4. Diet chart and menu planning for pregnant, lactating and nursing mothers from different socio-economic group.
5. Diet chart and menu planning for elderly people.
6. Food service management: Definitions, principles and functions. Tools of management, resources.

Unit - 14 (PROJECT, INTERNSHIP & EDUCATIONAL EXCURSION)

A. Project Work:

A Project work on public health / nutritional biochemistry / nutritional survey to be submitted.

Formulation of the Project:

1. Meaning of scientific research and its methods. Formulation of project design.
2. Types of project design- exploratory, descriptive, experimental, cross sectional or longitudinal.
3. Methods: survey, case study, anthropological or experimental.
4. Tools and techniques: observation, interviewing, questionnaire schedules or

rating scales.

5. Tabulation and interpretation: Tabular and graphic representation of data and its interpretation, bar diagram, pie diagram. Statistical procedures - variables, mean, standard deviation, test of hypothesis (t-test), chi-square test, degrees of freedom, null hypothesis, z-score.

B. Internship:

A report on the basis of internship in a hospital dietary department or diet clinic to be submitted.

Aspects to be covered for general knowledge to:

1. Establish rapport with patients - assess the nutritional status and diet history of patients.
2. Plan diet sheets after careful study of patients' case sheets - prepare and provide guidance in the production of therapeutic diets.
3. Supervise preparation of diets, assist and guide in tray setting with special emphasis on portion control and therapeutic modifications.
4. Supervise delivery of trays to patients.
5. Get feedback from patients regarding diets.
6. The modification of diet through consultation doctors.
7. Undertake case study at hospital situations.
8. Visits to different dietary departments of various hospitals.
9. Updating knowledge of presentation and participation through seminars and projects.
10. Gain experience in the administrative set up of a dietary department.
11. The role of dietician in hospital management.

B. Educational excursion in research hospital/ nutrition research related higher learning center:

a. Submitted a typed report considering minimum following.
b. Description of the Institute.
c. Principle of different instruments with uses.
d. Overall idea about excursion.

Paper - VIII (Practical)

Unit - 15 (DIET THERAPY)

1. Planning and preparation of normal diets.
2. Planning and preparation of fluid diets.
3. Planning and preparation of soft/semi solid diets.
4. Planning and preparation of high protein diets.
5. Planning and preparation of low fat and low calorie diets.
6. Planning and preparation of diets using sugar substitute for diabetic patients.
7. Planning and preparation of high fiber diets.
8. Planning the preparation of diets for the following conditions: Peptic Ulcers, Viral

Hepatitis, Anaemia, Diabetes Mellitus, CHD, Gout.

Unit – 16 (HEALTH STATISTICS, COMPUTER & ASSIGNMENT PROGRAMME ON RESEARCH METHODOLOGY)

1. Graphical presentation of data.
2. Computation of Mean, Median, Mode, SD & SE.
3. Significance of testing by 't' test with interpretation – Paired observation, standard/population mean
4. Tabular form of data presentation in computer.
5. Use of Microsoft Word and Excel with specific problem.
6. Assignment programme for Experimental design – covering any one of the following fields.
    i. Protein under nutrition and its recovery.
    ii. Vitamin or Mineral under nutrition and its recovery.
    iii. Dietary management of non-communicable disease.
    iv. Dietary management of growing child.
    v. Impact of nutrition education on awareness development in the field of personal health.
7. Community survey Report- Anyone.

MAPPING OF CO, PO, PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO 7:11:1	√	√		√							√		√	
CO 7 :11:2	√	√		√			√				√		√	
CO 7:11:3	√	√		√					√		√		√	
CO 7:12:1	√	√					√		√				√	√
CO 7:12:2	√	√	√			√			√			√	√	
CO 7:12:3	√	√	√				√					√	√	
CO 7:12:4	√		√			√		√			√	√		√
CO 7:13:1	√	√			√				√			√	√	√
CO 7:13:2	√	√			√				√			√	√	√
CO 7:13:3	√	√			√				√	√		√	√	
CO 7:14:1		√	√				√	√		√		√		
CO 7:14:2		√	√			√	√			√		√	√	
CO 7:14:3	√		√			√			√		√	√	√	
CO 7:14:4	√		√		√	√				√				√
CO 7:15:1	√	√			√			√				√	√	
CO 7:15:2	√				√			√				√	√	√
CO 7:15:3	√	√			√			√				√	√	
CO 7:16:1	√		√	√					√			√	√	
CO 7:16:2	√		√	√			√		√			√	√	
CO 7:16:3			√				√					√	√	
CO 7:16:4		√			√	√							√	√

Justification matrix of CO with PO & PSO (high: 3, medium: 2, low:1)

	Mapping	Correlation	Justification
CO 7:11:1	PO1	High	Gain knowledge on diet therapy in various diseases.
	PO2	High	Understand the different complication of various diseases.
	PO4	High	Medicine and Modern Tool are uses for treatment of various diseases for recovery.
	PSO1	High	Learn nutrition and apply nutritional knowledge to important public health issues.
	PSO3	High	Get an idea of various aspects of diseases and dietary management
CO7:11:2	PO1	High	To know about the principle of therapeutic diet.
	PO2	High	The causative factors to be considered in planning therapeutic diet in different diseases.
	PO4	High	Modern medicines are use for treatment of various diseases for quick recovery.
	PO7	High	Students are able to demonstrate a depth of knowledge within their area of therapeutic diet.
	PSO1	High	Learn therapeutic nutrition and apply nutritional knowledge to important public health issues and distribute such knowledge to population.
	PSO3	High	Get an idea on dietary management of various aspects of diseases, dietary and its application.
CO7:11:3	PO1	High	To gain knowledge about various types diseases and their etiology, symptoms, types, dietary management, and included and excluded foods.
	PO2	High	To gain knowledge about various types of symptoms and complication of different diseases
	PO4	High	Different types of modern Tool are use for the diagnosis of the diseases.
	PO9	High	Students will be able to discuss and practice professional standards of scientific inquiry on therapeutic nutrition.
	PSO1	High	Students learn diet therapy and apply nutritional diet therapy knowledge on public health issues and distribute such knowledge to population.
	PSO3	High	Students of nutrition will get an idea of various aspects of diseases, dietary management, menu planning, service style and its application.
CO7:12:1	PO1	High	Understand the basic concept of research, Sampling, data collection method, experimental design.
	PO2	High	Indentify different types of problems on research, Sampling, data collection method.
	PO7	High	Students will be able to demonstrate a depth of knowledge within their area of study on research, Sampling, data collection method and a breadth of knowledge across the field of nutrition.

	PO9	High	Students will be able to process and analyze data to make sound interpretations.
	PSO3	High	Students will get an idea on research, data computation and health statistics and its application.
	PSO4	High	Students will apply an idea of research, data computation and health statistics on their working .
CO7:12:2	PO1	High	Understand the basic principles of health statistics, including hypothesis testing, tabulation of data.
	PO2	High	Identify, formulate, research literature, and analyze complex health problems and searching out the solutions
	PO3	High	Use research-based knowledge and research methods including designof experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions regarding nutrition solving diseases.
	PO6	High	Students will be able to discuss the ethical implications of their understanding of health statistic and nutritional discoveries and to develop the culture of value-based thinking.
	PO9	Medium	Students will be able to discuss and practice professional standards of scientific inquiry and responsible conduct of scientists that are essential for the pursuit of new knowledge.
	PSO2	High	Students acquire practical knowledge on health statistics, including hypothesis testing, tabulation of data.
	PSO3	High	Students will get an idea of health statistics, including hypothesis testing, tabulation of data and its application.
CO7:12:3	PO1	High	To gain knowledge about overall health statistics, measurement of central tendency, standard deviation and standard error.
	PO2	High	Identify, analysis the problem of health statistics, measurement of central tendency, standard deviation and standard error.
	PO3	Medium	Use research-based knowledge and health statistics, measurement of central tendency, standard deviation and standard error, synthesis of the information to provide valid conclusions regarding nutrition solving diseases.
	PO7	High	Students will be able to demonstrate a depth of knowledge within their area of study of health statistics, measurement of central tendency, standard deviation and standard error and a breadth of knowledge across the field of nutrition.
	PSO2	High	Students acquire practical knowledge on health statistics, measurement of central tendency, standard deviation and standard error.

	PSO3	High	Students will get an idea of health statistics, including hypothesis testing, tabulation of data, measurement of central tendency, standard deviation and standard error and its application.
CO7:12:4	PO1	High	Knowledge gain on computer fundamental and operations like computer viruses, data processing and principle of programming.
	PO3	High	Identify the problems of computer operations and data processing.
	PO6	Medium	Students will be able to discuss the ethical implications of their understanding of computer operations and data processing and understand the pros and cons while taking decisions, and lead a sound value based ethical life.
	PO8	High	Students will able to gathered recent knowledge in different practical tools and techniques regarding nutrition and nutrigenomics with the help of computer operations and data processing.
	PSO1	High	Students learn computer operations and data processing and apply this knowledge to important public health issues and distribute such knowledge to population.
	PSO2	High	Students acquire practical knowledge on computer application, operations and data processing.
	PSO4	High	Students will apply an idea of computer application, operations and data processing, data computation and health statistics on their working.
CO7:13:1	PO1	High	To know about principles of formulation of diet chart and food service management.
	PO2	High	Analyze complex health problems and searching out the solutions by applying the modified foods and nutrients to mitigate the problems.
	PO5	High	Apply reasoning informed by the contextual knowledge to assesssocietal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional dietitian practice.
	PO9	High	Students will be able to discuss and practice professional standards of scientific inquiry and responsible conduct of scientists that are essential for the pursuit of new knowledge.
	PSO2	High	Students acquire practical knowledge on diet chart and diet planning.
	PSO3	High	Students of nutrition will get an idea of various aspects of diseases, dietary management, menu planning, service style.
	PSO4	High	Nutrition graduates have ample scope in academics, higher research institutes, hospital, industry, diet clinic, NGO services, food industry.

CO7:13:2	PO1	High	Students are able to planning and preparation of diet chart and menu planning for infants, pre-school children and adolescents, pregnant, lactating and nursing mothers from different physical activity and socio-economic status.
	PO2	High	Identify and analyze complex health problems and searching out the solutions by applying the modified foods and nutrients to mitigate the problems.
	PO5	High	Apply reasoning informed by the contextual knowledge to assesssocietal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional dietitian practice.
	PO9	High	Students will be able to discuss and practice professional standards of scientific inquiry and responsible conduct of scientists that are essential for the pursuit of new knowledge.
	PSO2	High	Students acquire practical knowledge on diet chart and diet planning.
	PSO3	High	Students of nutrition will get an idea of various aspects of diseases, dietary management, menu planning, service style.
	PSO4	Medium	Nutrition graduates have ample scope in academics, higher research institutes, hospital, industry, diet clinic, NGO services, food industry.
CO7:13:3	PO1	High	To gain knowledge on diet chart and menu planning for elderly people and food service management functions, tools of management and resources.
	PO2	High	Identify and analyze complex health problems and searching out the solutions by applying the modified foods and nutrients to mitigate the problems.
	PO5	High	Apply reasoning informed by the contextual knowledge to assesssocietal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional dietitian practice.
	PO9	High	Students will be able to discuss and practice professional standards of scientific inquiry and responsible conduct of scientists that are essential for the pursuit of new knowledge
	PO10	High	Students will able to understand and aware the community regarding the environmental pollution and their management.
	PSO2	High	Students acquire practical knowledge on diet chart and diet planning.
	PSO3	High	Students of nutrition will get an idea of various aspects of diseases, dietary management, menu planning and service style.
CO7:14:1	PO2	High	To know about meaning of scientific research and its methods. Overall idea about internship and educational excursion related higher learning center.

	PO3	High	Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions regarding nutrition solving diseases.
	PO7	High	Students will be able to design and complete a research study and/or scientific experiments.
	PO8		Students will able to gathered recent knowledge in different practical techniques.
	PO10	Medium	Students will able to understand and aware the importance of environment in our life. Students will able to understand and aware thecommunity regarding the environmental pollution and their management.
	PSO2	High	Students acquire practical knowledge on project, internship and educational excursion.
CO7:14:2	PO2	High	Identify, formulate, research literature, and analyze complex health problems and searching out the solutions.
	PO3	High	Understand the formulation of the Project and project design and prepared own project application with Statistical procedures.
	PO6	High	Students will be able to discuss the ethical implications of our understanding of nutrition and nutritional discoveries
	PO7	High	Students will be able to demonstrate a depth of knowledge within their area of study and a breadth of knowledge across the field of nutrition.
	PO10	Medium	Students will able to understand and aware the importance of environment in our life.
	PSO2	High	Students acquire practical knowledge on project.
	PSO3	High	Students of nutrition will get an idea of various research and health statistics and its application.
CO7:14:3	PO1	High	Students are able to make a report on the basis of internship in a hospital dietary department or diet clinic on basis of patient's information.
	PO3	High	Analysis and interpretation of data, and synthesis of the information to provide valid conclusions regarding nutrition solving diseases.
	PO6	High	Students will be able to discuss the ethical implications of our understanding of nutrition and nutritional discoveries.
	PO9	High	Students will be able to process and analyze data to make sound interpretations.
	PSO1	High	Apply nutritional knowledge to important public health issues and distribute such knowledge to population.
	PSO2	High	Students acquire practical knowledge on internship and its application.
	PSO3	HighPO2	Students will get an idea of various aspects of diseases, dietary management, menu planning, service style,

			research and health statistics and its application.
CO7:14:4	PO1	High	Apply the knowledge of nutrition, dietetics, food sciences, research methodology, statistics for solution of health problems.
	PO3	High	Synthesis of the information to provide valid conclusions regarding nutrition solving diseases.
	PO5	High	Understanding knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional dietitian practice.
	PO6	High	Students will be able to demonstrate a depth of knowledge within their area of study and a breadth of knowledge across the field of nutrition.
	PO10	High	Students will able to understand and aware the importance of environment in our life.
	PSO4	High	Nutrition graduates have ample scope in academics, higher research institutes, hospital industry, diet clinic, NGO services, food industry, government services.
CO7:15:1	PO1	High	To gain knowledge about various types of diet (normal diet, fluid diet, soft diet, high protein diet, low fat and low caloric diet).
	PO2	High	Searching out the solutions by applying the modified foods and nutrients to mitigate the problems.
	PO5	High	Apply reasoning informed by the contextual knowledge to assesssocietal, health, safety, legal and cultural issues.
	PO8	High	Students will able to gathered recent knowledge in different practical techniques regarding diet therapy.
	PSO2	High	Students aquire practical knowledge on diet chart.
	PSO3	High	Students of nutrition will get an idea of various aspects of diseases, dietary management and menu planning.
CO7:15:2	PO1	High	Students are able to planning and preparation of various types of diet such as normal diet, fluid diet, soft diet, high protein diet,low fat and low caloric diet.
	PO5	High	The consequent responsibilities relevant to the professional dietitian practice.
	PO8	High	Students will able to gathered recent knowledge in different practical techniques regarding diet therapy planning.
	PSO2	High	Students acquire practical knowledge on diet chart and diet planning.
	PSO3	High	Students of nutrition will get an idea of various aspects of diseases, dietary management and menu planning.
	PSO4	Medium	Nutrition graduates have ample scope in academics, higher research institutes, hospital industry, diet clinic
CO7:15:3	PO1	High	To gain knowledge about various types of disease and planning the preparation of diets for the such conditions like Peptic Ulcers, Viral Hepatitis,

			Aneamia, Diabetes Mellitus, CHD, Gout.
	PO2	High	Searching out the solutions by applying the modified foods and nutrients to mitigate the problems.
	PO5	High	Apply reasoning informed by the contextual knowledge to assesssocietal, health, safety, legal and cultural issues.
	PO8	Medium	Students will able to gathered recent knowledge in different practical techniques regarding diet therapy planning.
	PSO2	High	Students acquire practical knowledge on diet chart and diet planning.
	PSO3	High	Students of nutrition will get an idea of various aspects of diseases, dietary management and menu planning.
CO7:16:1	PO1	High	To know about graphical presentation of data, computation of Mean, Median, Mode, SD & SE and significance of testing by 't' test with interpretation – Paired observation, standard/population mean.
	PO3	Medium	To know the use of research-based knowledge and research methods
	PO9	High	Students will be able to process and analyze data to make sound interpretations.
	PSO2	High	Students acquire practical knowledge on Mean, Median, Mode, SD & SE and significance of testing by 't' test with interpretation.
	PSO3	High	Students will get an idea of various research data computation and health statistics and its application.
CO7:16:2	PO1	High	To gain knowledge about the use of Microsoft word and excel with specific problem and tabular form of data presentation in computer.
	PO3	High	To know the use of research-based knowledge and research methods and tabular form of data presentation in computer.
	PO7	High	Students will be able to demonstrate a depth of knowledge within their area of study on Microsoft word and tabular form of data presentation in computer.
	PO9	High	Students will be able to discuss and practice professional standards of scientific inquiry and responsible conduct of scientists that are essential for the pursuit of new knowledge.
	PSO2	High	Students acquire practical knowledge about the use of Microsoft word and excel with specific problem and tabular form of data presentation in computer.
	PSO3	High	Students of nutrition will get an idea of various research data computation and health statistics and its application.
CO7:16:3	PO3	High	Students are able to make a assignment programme for experimental design of the different fields.
	PO7	High	Students will be able to demonstrate a depth of

			knowledge within their area of study on experimental design of the different fields.
	PO10	Medium	Students will able to understand and aware the community regarding the environmental pollution and their management for experimental design of the different fields.
	PSO2	High	Students aquire practical knowledge on assignment programme for experimental design of the different fields.
	PSO3	High	Students will get an idea of research data computation and health statistics and its application.
CO7:16:4	PO2	High	Students are able to make a report on community survey.
	PO5	Medium	The contextual knowledge to assess community survey on societal, health, safety, legal and cultural issues.
	PO6	High	Students will be able to discuss the ethical implications of our understanding of nutrition and nutritional discoveries.
	PSO3	High	Students of nutrition will get an idea to make a report on community survey.
	PSO4	Medium	Nutrition graduates have ample scope in academics, higher research institutes, hospital industry, diet clinic, NGO services, food industry, government services and many others.

ARTICULATION MATRIX OF CO WITH PO & PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3	PSO4
CO 7:11:1	3	3		3							3		3	
CO 7 :11:2	3	3		2			3				3		3	
CO 7:11:3	3	3		3					3		3		3	
CO 7:12:1	3	3					3		3				3	3
CO 7:12:2	3	3	3			3			2			3	3	
CO 7:12:3	3	3	2				3					3	3	
CO 7:12:4	3		3			2		3			3	3		3
CO 7:13:1	3	3			3				3			3	3	3
CO 7:13:2	3	3			3				3			3	3	2
CO 7:13:3	3	3			3				3	3		3	3	
CO 7:14:1		3	3				3	3		2		3		
CO 7:14:2		3	3			3	3			2		3	3	
CO 7:14:3	3		3			3			3		3	3	3	
CO 7:14:4	3		3		3	3				3				3
CO 7:15:1	3	3			3			3				3	3	
CO 7:15:2	3				3			3				3	3	2
CO 7:15:3	3	3			3			2				3	3	
CO 7:16:1	3		2						3			3	3	
CO 7:16:2	3		3				3		3			3	3	
CO 7:16:3			3				3			2		3	3	
CO 7:16:4		3			2	3							3	2
Target	**3**	**3**	**2.8**	**2.6**	**2.8**	**2.8**	**3**	**2.8**	**2.8**	**2.4**	**3**	**3**	**3**	**2.5**

The following list of students from 2018-2019 Batch have taken admission into HEIs for higher studies:

Name of student enrolling into higher education	Program graduated from	Name of institution joined	Name of program admitted to
Banasri Parua	M.G.M/Nutrition	Raja Narendralal Khan Women's College	M.Sc in Food Science and Nutrition
Saptaparni Shil	M.G.M/Nutrition	MAKAUT, WB	MBA
Snigdha De	M.G.M/Nutrition	College of Paramedical and Allied Health Sciences, WBUHS	M.Sc in Applied Nutrition
Krishna Pradhan	M.G.M/Nutrition	College of Paramedical and Allied Health Sciences, WBUHS.	M.sc in Applied Nutrition
SuchetaSantra	M.G.M/Nutrition	Vidyasagar Institute of Health	M.sc in. Clinical Nutrition and Dietetics.
AnkitaMaity	M.G.M/Nutrition	Raja Narendralal Khan Women's College	M.Sc in Food Science and Nutrition
Sumitra Das	M.G.M/Nutrition	Raja Narendralal Khan Women's College	MSc in Food Science and Nutrition
Shreya khanda Subinita Jana	M.G.M/Nutrition M.G.M/Nutrition /Nutrition	MAKAUT, WB IQ City medical College and Hospital	MBA Internship
Nirupama Barman	M.G.M/Nutrition	All India Institute of Hygiene and Public Health, WBUHS	Diploma in Dietetics
Sampa Das	M.G.M/Nutrition	Vidyasagar Institute of Health	M.Sc in Clinical Nutrition and Dietetics
Selina Begam	M.G.M/Nutrition	All India Institute of Hygiene and Public Health, WBUHS	Diploma in Dietetics
Bithika Jana	M.G.M/Nutrition	Vidyasagar Institute of Health	M.Sc in Clinical Nutrition and Dietetics
SanchitaGiri	M.G.M/Nutrition	Raja Narendralal Khan Women's College	M.Sc in Food Science and Nutrition

DIRECT METHOD

Academic Session: 2018-2019

3rd Year

Programme Name: B. SC. HONS (NUTRITION)

ATTAINMENT LEVELS FOR

Result of UG SEM 6 of the academic year 2018-2019				
Sl.No.	**Name**	**Class Roll**	**Total Mark**	**Percentage (%)**
1	Banasri Parua	751	555	69.38
2	Saptaparni Shil	752	457	57.12
3	Sathi Pradhan	753	568	71
4	Snigdha De	754	574	71.75
5	Krishna Pradhan	756	589	73.6
6	Sucheta Santra	757	554	69.25
7	Ankita Maity	758	503	62.87
8	Sumitra Das	760	567	70.87
9	Subinita Jana	763	382	48
10	Nirupama Barman	768	560	70.00
11	Rumpa Sheet	769	470	58.7
12	Madhusree Maity	771	560	70.00
13	Sampa Das	773	443	55.3
14	Shreya khanda	777	480	60
15	Selina Begam	778	495	61.87
16	Puja Rani Mandal	780	531	66.37
17	Bithika Jana	781	428	53.5
18	Sanchita Giri	784	481	60.12

PO & PSO ATTAINMENT
INDIRECT METHOD
Academic Session: 2018-2019
3rd Year
Programme Name: B. SC. HONS (NUTRITION)

Exit form survey is conducted through questionnaire methods. out of 10 questions, first 7 of them relate directly to the POs & the last 3 questions relate to the PSOs. a sample form is given below:

DEPARTMENT OF NUTITION, MUGBERIA GANGADHAR MAHAVIDYALAYA
BHUPATINAGAR, PURBA MEDINIPUR-721425

INDIRECT ASSESSMENT METHOD :: ACADEMIC SESSION 2022-2023
QUESTIONNAIRE FOR [redacted] GRADUATE EXIT SURVEY (Tike the appropriate option)
(Students are asked to be completed the following 10 question)

Students Name: Bithika Jana

Course Name: UG/ PG Semester: year: 3nd year

Mobile No: 9159065117 Email: janabithika132@gmail.com

1. Did you acquire sound & sufficient knowledge of the courses taught?

Excellent	Good	Average	Poor
	✓		

2. Rate your skill development in terms of critical thinking & reasoning offered in the courses?

Excellent	Good	Average	Poor
✓			

3. How much are the courses offered to you suggesting an interdisciplinary approach?

Excellent	Good	Average	Poor
	✓		

4. Rate the courses as per their communication skill and attitude.

Excellent	Good	Average	Poor
✓			

5. Did the courses help in developing self directed learning?

Excellent	Good	Average	Poor
	✓		

6. Rate the courses in terms of their updation with recent developments.

Excellent	Good	Average	Poor
	✓		

7. Rate the courses in terms of their experimental learning and employability option?

Excellent	Good	Average	Poor
✓			

8. Rate the courses in terms of their environmental awareness and relevance to sustainable measures?

Excellent	Good	Average	Poor
	✓		

9. Rate the courses in terms of developing research oriented skill.

Excellent	Good	Average	Poor
✓			

10. How far the courses are relevant in terms of job opportunities and research/further studies?

Excellent	Good	Average	Poor
✓			

Bithika Jana
Signature

RATING AND RELATION OF POs AND PSOs WITH QUESTIONNARIE

Average Rating (Excellent- 4, Good-3, Average-2, Poor-1) Target level: 3

Sl. No.	Questions	Average Rating (of 18 students)
1.	**Did you acquire sound & sufficient knowledge of the courses taught?**	**3.21**
2.	**Rate your skill development in terms of critical thinking & reasoning offered in the courses?**	**3.21**
3.	**How much are the courses offered to you suggesting an interdisciplinary approach?**	**3.31**
4.	**Rate the courses as per their communication skill and attitude.**	**3.21**
5.	**Did the courses help in developing self directed learning?**	**3.52**
6.	**Rate the courses in terms of their updating with recent developments.**	**3.26**
7.	**Rate the courses in terms of their experimental learning and employability option?**	**3.26**
8.	**Rate the courses in terms of their environmental awareness and relevance to sustainable measures?**	**3.47**
9.	**Rate the courses in terms of developing research oriented skill.**	**3.42**
10.	**How far the courses are relevant in terms of job opportunities and research/further studies?**	**3.26**

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PSO 1**	**PSO 2**	**PSO 3**	**PSO 4**
Questioner	Q1, Q3, Q5	Q1, Q4, Q6	Q1, Q7, Q5	Q1, Q5, Q6	Q2, Q4, Q8	Q1, Q6, Q3	Q1, Q5, Q9	Q1, Q10 , Q5	Q1, Q6, Q9	Q1, Q4, Q8	Q2, Q6, Q10	Q1, Q3, Q8	Q1, Q7, Q10
Average Rating	**3**	**2.8**	**2.8**	**3**	**2.6**	**2.8**	**3**	**2.4**	**2.8**	**2.2**	**3**	**3**	**3**

MUGBERIA GANGADHAR MAHAVIDYALAYA, MUGBERIA 721425

DEPARTMENT OF NUTRITION

FINAL ATTAINMENT OF CO, PO & PSO

PROGRAMME NAME: B.Sc. HONOURS IN NUTRITION
(BATCH 2018-2019)

Direct Method: Average COs of all courses

	CO	CO	CO	CO
	7:11:1, 7:11:3, 7:12:1	7:13:1, 7:13:3	7:14:3, 7;14:4	7:15:1, 7:16:2
Direct Attainment	3	3	3	3

Direct Method, the target level is reached successfully.

Indirect Method: Average of PO & PSO with the questionnaire

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
	1	2	3	4	5	6	7	8	9	10
Indirect Attainment	3.21	3.31	3.21	3.52	3.26	3.26	3.47	3.42	3.42	3.26

Indirect Method, the target level is reached successfully for POs & PSOs.

The report is prepared by Pranati Bera, SACT Teacher, Dept of Nutrition.

20.06.2019

Dr. Swapan Kumar Misra

Principal
Mugberia Gangadhar Mahavidyalaya

Principal
Mugberia Gangadhar Mahavidyalaya

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