

Academic Calendar

**Department of Food & Nutrition (Honours)
2021 2nd 4th sem 6th sem CBCS**

Semester/ Year (H/G)	Syllabus Module/ Unit TOPIC	No of Lecture s	Teachers	Distributi on
2 nd Semester	FNTACOR03T: FOOD CHEMISTRY(THEORY)			
	1. proteins & amino acids	5	DP	WITHIN APRIL
	Proteins: Classification. FUNC, deficiency	1		
	Protein structure and organization: primary, secondary, tertiary and quaternary structure.	1		
	Amino acid classification.	1		
	Physical and chemical properties of amino acid and protein.	1		
	Biological value of proteins (BV), Net protein utilization (NPU) and Proteinefficiency ratio (PER).	1	DP	MAY
	2. carbohydrate chemistry	6		
	Carbohydrates: classification- mono-, di- & polysaccharides; func, deficiency	1		
	Stereoisomerism in carbohydrates.	1		
	Physical and chemical properties of mono-, di- and polysaccharides;	1		
	Dietary fibre - definition;	1		
	Fibre components - cellulose, hemicellulose, pectin substances, lignin.	1		
	3, Lipid chemistry	5	SS	WITHIN APRIL
	Lipids: Classification- Fatty acids, triglycerides, phospholipids, Glycolipids, sterols and steroids.	1		
	Eiconoids.	1		
Edible fats and oils - physical and chemical properties, Hydrogenation and importance of fats in the diet.	1			
Physical and chemical properties of saturated, monounsaturated, polyunsaturated fatty acids, trans fatty acids, phospholipids, cholesterol and liposomes.	1			
Essential fatty acids.	1	DP	WITHIN MAY 1 ST WEEK	
4. water	3			
Definition of water in foods, water activity,	1			
phase transition of food containing water.	1			
Water activity and its influence on quality and stability of foods,	1			
methods for stabilization of food systems by control of water activity	1			

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	<p>5. physiochemical principles</p> <p>Laws of thermodynamics, Enthalpy, Entropy. Gibbs' free energy Thermodynamics and living system. Definition, explanation, importance and biological application of diffusion, osmosis, absorption, absorption, viscosity and surface tension. Colloids: definition and importance. Acids and bases, Hydrogen ion concentration. Buffers. Oxidation reduction potential of bioactives (e.g. flavonoids, phenolic acids, quinols) and their applications in food systems</p> <p>6. enzymes</p> <p>Enzymes: Definition and structure. Enzyme substrate interaction. Enzyme kinetics, Michaelis-Menten constant(K_m).equation Enzyme inhibition. Factors regulating enzyme activities, Isoenzymes, Pro- enzymes, Ribozymes, Apozymes, Concept of Rate limiting enzymes</p> <p>INTERNAL EXAMINER :=DP</p> <p>FNTACOR03P: FOOD CHEMISTRY, BIOPHYSICS AND BIOCHEMICAL PRINCIPLES(PRACTICAL)</p> <p>1. Qualitative tests for the identification of: Glucose, Galactose, Fructose, Sucrose, Lactose, Starch, Dextrin.</p> <p>2. Glucose estimation in blood .</p> <p>3. Qualitative tests for the identification of - Albumin, Gelatin, Peptone, urea, uric acid.</p> <p>4. Protein estimation by Biuret and Lowry methods.</p> <p>5. Estimation of urea and uric acid in blood.</p> <p>6. Determination of acid value of oils by titrimetric method.</p> <p>7. Determination of osmotic pressure of colloidal solutions.</p>	<p>6</p> <p>1</p> <p>2</p> <p>1</p> <p>1</p> <p>1</p> <p>4</p> <p>1</p> <p>2</p> <p>1</p> <p>1</p> <p>4</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p>	<p>SS</p> <p>DP</p> <p>DP</p>	<p>JUNE</p> <p>MAY TO JUNE '=.</p> <p>WITH IN JUNE</p>
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8. Determination of specific gravity of liquid (fruit juice, blood).	2		
INTERNAL EXAMINER :- DP			
FNTACOR04T: PHYSIOLOGY IN NUTRITION (THEORY)	10		
1. physiology of excitable cells			
Different types of muscles and their structures	1		APRIL TO MAY 2 ND WEEK
Mechanism of skeletal muscle contraction and relaxation,	2	M. SETH	
Muscle energetic, Isometric and isotonic muscle contraction.	2		
Structure of nerves.	1		
Nerve impulse and its conduction. Synapse and Neuromuscular junctions.	2		
Synaptic transmission.	1		
Neurotrophins	1		
2. nervous system	10		
Brief anatomy of Brain and spinal cord. Central and Peripheral nervous system.	1		MAY TO JUNE
Reflex action and Reflex arc.	1	M.SETH	
Outline of functions of cerebrum, cerebellum, hypothalamus. Autonomic nervous system:	1		
Sympathetic and parasympathetic nervous system.	1		
Sensory physiology: Sensory Receptors as biotransducers.	1		
Brief outline of the special senses.	1		
Structure and functions of photoreceptors in eye and hair cells in cochlea	3		
3.reproductive system			
Structure of ovary, fallopian tubule and uterus.	12		MAY
Oogenesis and ovulation.	1	MS	
Changes during menstrual cycle,	2		

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Hormonal regulation of menstrual cycle and menopause	2		
Fertilisation and implantation of blastocysts , Placenta.	2		
Hormonal control of pregnancy, parturition, lactation,	2		
Structure of testis, prostate and seminal vesicle.	1		
spermatogenesis and its hormonal regulation.	2		
4.endocrine system	12		
Structure, hormones and functions of pituitary,	2		
thyroid,	2		
parathyroid,	2	GC	WITHIN JUNE
adrenal gland	2		
and pancreas.	2		
Hypothalamus as an endocrine gland.	2		
Gastrointestinal hormones.	2		
Growth factors.			
INTERNAL EXAMINER :- GC			
FNTACOR04P: PHYSIOLOGY IN NUTRITION(PRACTICAL)			
1. Test for Visual acuity, Colour vision.	4		
2. Identification with reasons of histological slides (Lung, Liver, Kidney, Small intestine, Stomach, Thyroid, Adrenal, Pancreas, Testis, Ovary and Muscle of mammals).	4	M.SETH & MS	WITHIN JUNE
3. Qualitative determination of glucose in blood or urine.	2		
4. Total count (TC) and Differential count (DC)	4		
INTERNAL EXAMINER:- MS			

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4 th Semester	<p>FNTACOR08T: community nutrition(THEORY)</p> <p>1. Concept on Community Concept of Community, types of Community, Factors affecting health of the Community.</p> <p>2. Nutritional Assessment and Surveillance Nutritional Assessment Surveillance: Meaning, need, objectives and importance.</p> <p>3. Assessment methods for human Nutritional assessment of human: Clinical findings, nutritional anthropometry, biochemical tests, biophysical methods.</p> <p>4. Diet survey Diet survey: Need and importance, methods of dietary survey, Interpretation - concept of consumption unit, individual and total distribution of food in family, adequacy of diet in respect to RDA, concept of family food security.</p> <p>5. Clinical Signs Clinical Signs: Need and importance, identifying signs of PEM, vitamin A deficiency and iodine deficiency, Interpretation of descriptive list of clinical signs. Nutritional anaemia. Rickets, B-Complex deficiencies.</p> <p>6. Nutritional anthropometry Nutritional anthropometry: Need and importance,</p>	<p align="center">2</p> <p align="center">4 2 2</p> <p align="center">5 1 2 1 1</p> <p align="center">10 3 4 3</p> <p align="center">10 1 2 2 2 2 1</p>	<p align="center">SS</p> <p align="center">SS</p> <p align="center">SS</p> <p align="center">SS</p> <p align="center">SS</p> <p align="center">SP</p>	<p align="center">APRIL</p> <p align="center">June 1st week</p> <p align="center">JUNE 1ST WEEK</p> <p align="center">WITHIN JUNE</p> <p align="center">JUNE 1ST WEEK</p>

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	<p>standard for reference, techniques of measuring height, weight, head, chest and arm circumference, interpretation of these measurements.</p> <p>Growth & Development;</p> <p>Body Composition: Changes through lifecycle</p> <p>Use of growth charts.</p> <p>7. Agencies and programmes</p> <p>International, national, regional agencies and organisations.</p> <p>National nutritional intervention programmes to combat malnutrition:ICDS, Midday meal, Special nutrition program,</p> <p>National programs for prevention of anaemia, Vitamin A deficiency control programme Iodine deficiency disorders.</p> <p>INTERNAL EXAMINER :- SS</p> <p>FNTACOR08P: COMMUNITY NUTRITION (PRACTICAL)</p> <p>1. Anthropometric Measurement of infant - Height, weight, circumference of chest, mid - upper arm circumference, precautions to be taken. 2. Comparison with norms and interpretation of the nutritional assessment data and its significance. Weight for age, height for age, weight for height, Z scores, body Mass Index (BMI) Waist - Hip Ratio (WHR). 3. Growth charts - plotting of growth charts, growth monitoring and promotion. 4. Clinical assessment and signs of nutrient deficiencies specially PEM (Kwashiorkor, marasmus) I vitamin A deficiencies, Anaemia, Rickets, B-Complex deficiencies. 5. Estimation of food and nutrient intake: Household food consumption data, adult consumption unit, 24 hours dietary recall 24 hours record, Weighment method, food diaries, food frequency data, use of each of the above, information available through each individual, collection of data, estimation of intakes</p> <p>INTERNAL EXAMINER : SS</p>	<p align="center">4</p> <p align="center">10</p> <p align="center">4</p> <p align="center">3</p> <p align="center">3</p> <p align="center">32 CLASS</p>	<p>SS</p> <p>DP</p> <p>SS</p> <p>DP</p> <p>SS</p>	<p>MID JUNE</p> <p>JUNE END</p> <p>JUNE END</p> <p>WITHIN JUNE</p>
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	<p>FNTACOR09T: EPIDEMIOLOGY AND PUBLIC HEALTH(THEORY)</p> <p>1. Introduction on Health Health and its importance: Definition of health (WHO), Dimension of health,</p> <p>Positive health.</p> <p>Determinants of health.</p> <p>Concept of disease and its causations.</p> <p>2. Data of Community health Secondary sources of community health data: Indicators of health. Secondary sources of data from NFHS, Vital Statistics, Census of India, ICMR.</p> <p>3.Epidemiology</p> <p>Definition of epidemiology, components and aims of epidemiology, basic measurements in epidemiology.</p> <p>Demography and family planning.</p> <p>Brief idea about epidemics,</p> <p><u>epidemiological methods: analytical epidemiology (case control and cohort study);</u></p> <p><u>Experimental epidemiology.</u></p> <p>Infectious diseases in epidemiology.</p> <p>Dynamics of disease transmission, modes of transmission of disease.</p>	<p>4</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>2</p> <p>10</p> <p>12</p>	<p>DM</p> <p>MS</p> <p>MS</p>	<p>2ND WEEK OF APRIL</p> <p>2ND</p> <p>JUNE END</p>
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	<p>4.Diseases: Prevention and control</p> <p>Epidemiology of diseases, prevention and control [(Nutritionally related disease:- Hyperlipidaemia, clotting disorder, scurvy, beriberi, goiter); (vector borne disease: - HIV/AIDS, malaria, poliomyelitis, dengue, tuberculosis, mumps measles rubella, chicken pox, pertussis, chikungunya); (food borne disease:- salmonellosis, shigellosis, Typhoid , botulism, amoebiasis, rotavirus, E.coli food poisoning, staphylococcal food poisoning); (water borne disease: arsenic toxicity, cholera); (non communicable disease:- obesity, diabetes, coronary heart disease)</p> <p>5.Public health Definition of public health, relation between health and nutrition.</p>	<p>3</p>	<p>DM MS DM</p>	<p>WITHIN JULY</p> <p>4TH week MAY</p>
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<p>6. Immunization</p> <p>Immunization : definition. Host defenses and immunity, immunizing agents: its types, national immunization schedule- its importance, immunization in adults and travellers, hazards of immunization health advice to foreign travellers.</p>	2	MS	MAY
<p>7. Community health care</p> <p>Health care of the community, health care delivery, health care system, Primary health care in India, Indian public health standards for subcenters, PHCs, community health centers. Hospital waste management.</p>	2	MS	JUNE 1 ST WEEK
<p>8. Community water management</p> <p>Community water management: importance of water to the community, sources of water. Concept of water pollution. Purification of water in small and large scale. Drinking water handling and safe drinking water</p>	6 2 2 2	DM	WITHIN JUNE
<p>9. Community waste management</p> <p>Community waste management: types and methods of disposal of wastes, sewage disposal and treatment.</p>	4	DM	MAY
<p>10. Air pollution</p> <p>Air pollution: source of air pollution, factors of air pollution. Indoor air pollution. Monitoring of air pollution. Effects, prevention and control of air pollution.</p>	4	DM	JUNE
<p>INTERNAL EXAMINER :- DM FNTACOR09P: EPIDEMIOLOGY AND PUBLIC HEALTH(PRACTICAL)</p>			


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	<p>.1. Preparation of 3 audio visual aids like charts, posters, models related to health and nutrition education.</p> <p>2. Formulation and preparation of low cost and medium cost nutritious/ supplementary recipe.</p> <p>3. Field visit (health centre, immunization centre, ICDS, MCH centre, NGOs etc.)</p> <p>FNTACOR10T: DIET THERAPY FOR LIFE STYLE DISORDERS(THEORY)</p> <p>1. Lifestyle disorder Introduction, types, aetiology, management.</p> <p>2. Diabetes Mellitus Definition, Etiology, Classification, long and short term complications, Diagnosis, Management (Insulin Therapy, Dietary Management with food exchange list, Exercise, Pharmacological), Role of artificial sweeteners. Overview of special conditions: Diabetes in Childhood, Pregnancy, Role of Nutrition Education, Role of Nutrition in Prevention.</p> <p>3. Cardiovascular diseases</p> <p>Prevalence, incidence, mortality with special reference to Indian situation.</p> <p>Patho - physiology and Management of Atherosclerosis,</p> <p>Endothelial dysfunction,</p> <p>Thrombosis,</p> <p>Angina Pectoris,</p> <p>Congestive cardiac failure,</p> <p>stroke,</p> <p>MI.</p> <p>Hyper-lipidemia– classification, diagnosis and nutritional management,</p>	<p>4</p> <p>8</p> <p>8</p>	<p>GC</p> <p>GC</p> <p>DP</p> <p>GC</p>	<p>WITHIN JULY</p> <p>MAY 2ND WEEK</p> <p>MID JUNE</p> <p>WITHIN MAY</p>
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<p>2ND SEM GENERA L</p>	<p>INTERNAL EXAMINER :- GC</p> <p>FNTACOR10P: DIET THERAPY FOR LIFE STYLE DISORDERS(PRACTICAL)</p> <p>Planning and preparation of Diets for the following diseases: i) Obesity and Underweight SP ii) Diabetes mellitus SP iii) Hypertension and Atherosclerosis GC iv) Overweight and Underweight SP v) Gout GC vi) Osteoporosis GC</p> <p>INTERNAL EXAMINER :- SP</p> <p>FNTGCOR02T: HUMAN BODY AND NUTRITION (THEORY)</p> <p>1. Animal cell Animal cell: definition, structure and functions of different parts. Organelle</p> <p>Blood and body Fluids: Blood, composition, blood corpuscles, functions, blood groups and its importance in transfusion, hazards of mismatch blood transfusion. Rh factor, blood coagulation. Lymph: Composition and function.</p> <p>Cardiovascular and Respiratory system Heart: Junctionl tissues and functions. Cardiac cycle, cardiac output, blood pressure and its regulation. Mechanism of respiration, Respiratory centre. Respiratory regulation.</p> <p>4. Digestive system and Digestion Digestive system: Structures involved in digestive system (mouth, oesophagus, stomach, small intestine, large intestine, liver pancreas, gallbladder), and their functions, composition of different digestive juices & their functions.</p>	<p>4</p> <p>4</p> <p>6</p> <p>4</p>	<p>SP, GC</p> <p>MS</p> <p>GC</p> <p>MS</p> <p>M.SETH</p> <p>GC</p> <p>MS</p>	<p>WITHIN JULY</p> <p>2ND week of MAY</p> <p>2ND WEEK OF MAY</p> <p>2ND week of JUNE</p> <p>WITHIN JUNE</p>
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	Digestion and absorption of carbohydrate, protein and fat.	8	MS	WITHIN JULY
	 <p>5. Excitable cells Brief description about the mechanism of muscular contraction.</p> <p>Neuro-muscular transmission.</p>	4	M.SETH	
	<p>6. Regulatory systems General idea about the Hormones in human body and their significance on nutrition.</p> <p>Brief idea about brain and spinal cord, somatic and autonomic control of body</p> <p>INTERNAL EXAMINER :-GC</p>	8	GC	WITHIN JULY
	<p>FNTGCOR02P: HUMAN BODY AND NUTRITION (PRACTICAL)</p> <ol style="list-style-type: none"> Determination of pulse rate in Resting condition and after exercise (30 beats/10 beats method) Determination of blood pressure by Sphygmomanometer (Auscultatory method). Identification of permanent sections (Blood cells, Stomach, Small intestine, large intestine, Liver, pancreas). Determination of Bleeding Time (BT) and Clotting Time (CT). Detection of Blood group (Slide method). 		SS	WITHIN JULY
	<p>FNTGCOR04T:DIETETICS (THEORY) TOTAL HOURS: 60 CREDITS: 4</p> <p>1. Concept on Diet therapy Definition and objective of dietetics, Definition-diet therapy, Dieticians;principles and classification of the therapeutic diet. Responsibility of dieticians.</p>	4	MS	WITHIN MAY 2 ND WEEK
	<p>2. RDA, Meal planning and Dietary guidelines RDA- Definition, Nutritional requirements (RDA), Principles and objectives of meal planning,</p>	6	GC	WITHIN MAY 3 RD WEEK

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<p>4TH SEM GENERA L</p>	<p>Dietary guidelines of pregnant & lactating women, infants(Weaning, supplementary food), pre-school children & school children (School lunch programme), adult males and females, old age people.</p> <p>3. Hospital diet Hospital diet: regular, soft, fluid, s pecial feeding methods- advantages, disadvantages</p> <p>4. Dietary management of different diseases Dietary management in Gastro intestinal diseases (diarrhoea, constipation, gastritis, peptic ulcer & flatulence), Fever (short term), Diabetes mellitus (Type II - 1), Heart diseases (hypertension, atherosclerosis, hyperlipidaemia), Liver diseases (infective hepatitis, cirrhosis of liver), Gout, Obesity (including assessment indices), Underweight.</p> <p>5. Food Allergy Food allergy- Definition, sources, symptoms, diagnosis, treatment, food intolerance.</p> <p>INTERNAL EXAMINER:- MS</p>	<p>4</p> <p>8</p> <p>4</p>	<p>MS</p> <p>MS</p> <p>GC</p> <p>MS</p>	<p>WITHIN JUNE 1ST WEEK</p> <p>WITHIN JULY 2ND WEEK</p> <p>WITHIN JULY</p> <p>WITHIN JULY</p>
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	<p>status /health concern(at least 10 case studies to be done)</p> <p>5. Internship in any hospital/nursing home -case study of diseases</p> <p>6. Preparation of visual aids indicating clinical problems related to nutrition – Charts, posters, models etc. and demonstration</p> <p>INTERNAL EXAMINER GC</p> <p>SEMESTER 6 (HONOURS)</p> <p>FNTACOR13T: FOOD PROCESSING AND FOOD TECHNOLOGY(THEORY)</p> <p>1. Food Storage and Spoilage Contamination and microorganisms in the spoilage of different kinds of foods and such as cereal and cereal products, vegetable and fruits, fish and other sea foods, meat and meat products, eggs and poultry, milk and products, canned foods. Classification of food based on pH, Food infection, food intoxication, definition of shelf life, perishable foods, semi perishable foods, shelf stable foods, Storage of different kinds of foods and such as cereal and cereal products, vegetable and fruits, fish and other sea foods, meat and meat products, eggs and poultry, milk and products, spices and canned foods.</p> <p>2. Food preservation Definition, objectives and principles of food preservation. Different methods of food preservation. : Freezing and Refrigeration:Introduction to refrigeration, cool storage and freezing, definition, principle of freezing, freezing curve, changes occurring during freezing, types of freezing i.e. slow freezing, quick freezing, introduction to thawing, changes during thawing and its effect on food.</p> <p>Thermal Processing- Commercial heat preservation methods: Sterilization, commercial sterilization, Pasteurization, and blanching.Drying and Dehydration - Definition, drying as a means of preservation, differences between sun</p>		<p>DM</p> <p>DM</p>	<p>MAY</p> <p>MAY</p>
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	<p>drying and dehydration (i.e. mechanical drying), heat and mass transfer, factors affecting rate of drying, normal drying curve, names of types of driers used in the food industry.</p> <p>Evaporation – Definition, factors affecting evaporation, names of evaporators used in food industry. Units of radiation, kinds of ionizing radiations used in food irradiation, mechanism of action, uses of radiation processing in food industry, concept of cold sterilization.</p> <p>3.Preserved Products Jam, Jelly, Marmalade, Sauces, Pickles, Squashes, Syrups types, composition and manufacture, selection, cost, storage, uses and nutritional aspects</p> <p>4. Food Standards and Food Laws Introduction on Food standards and Food Laws, FSSAI, ISI, Agmark, FPO, MPO, PFA, HACCP, Codex Alimentarius.</p> <p>5.Food Adulteration Definition, Classification, Different types of adulterants</p> <p>6.Food Packaging Packaging Functions and Requirements,, Printing of packages .Barcodes & other marking, Labeling Laws</p> <p>INTERNAL EXAMINER :-DP</p> <p>FNTACOR13P: FOOD PROCESSING AND FOOD TECHNOLOGY(PRACTICAL) TOTAL HOURS: 60 2 CREDITS</p> <ol style="list-style-type: none"> 1. Study on Blanching and Browning Process. 2. Preparation of Fruit preserves(Jam, Jelly). 3. Preparation of vegetable preserves.(Pickles) 4. Dehydrated Products – tray drying, sun drying etc. 5. Tomato Processing. 6. Fruit Pulping/Juice/Beverages production. 7. Preparation and Standardisation of Traditional Indian Fermented Food. 8. Visit to Food Processing and Preservation unit. 		<p>DP</p> <p>DP</p> <p>DM</p> <p>DP</p> <p>DM</p> <p>ENTIRELY BY SS</p>	<p>JUNE</p> <p>JUNE</p> <p>JULY</p> <p>JULY</p> <p>WITHIN JULY</p>
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<p>Detection of Adulterants in common Food Stuffs like Milk, Oil, Laddu, Turmeric etc.</p> <p>INTERNAL EXAMINER :- SS</p> <p>FNTACOR14T: RESEARCH METHODOLOGY AND BIostatISTICS(THEORY)</p> <p>1. Research Methodology Meaning, objectives and Significance of research. Types of research, research approaches and scientific methods, Research process, Criteria of good research.</p> <p>2. Research problem Definition and identification of a research problem, Selection of research problem. Technique Involved in Defining a Problem.</p> <p>3. Study design Meaning and needs of design, important concepts relating to research design, variables, experimental and control groups. (Use examples from epidemiology and clinical trials). Different research designs- exploratory, descriptive, analytical and diagnostic (epidemiology and clinical trials). Pilot studies. Qualitative vs quantitative research.</p> <p>4. Sampling of data and analysis Variable, parameter, statistics. Frequency distribution. Cumulative frequency. Graphical presentation techniques including Histogram, Bar chart, Pie chart along with the concepts of frequency polygon. Mean, median, mode, Standard Deviation and Standard Error of mean .Probability. Normal distribution. Student’s t-distribution. Testing of hypothesis - Null hypothesis, errors of inference, levels of significance, Degrees of freedom.</p> <p>5.Preparation of report a. Graphical and diagrammatic presentation. b. Interpretation of – Meaning of</p>	6	DEBASHIS MAZUMDAR	WITHIN MAY
	6	DEBASHIS MAZUMDAR	WITHIN JUNE
	12	DM	WITHIN JULY
	12	SS	WITHIN JULY

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	<p>interpretation, Technique of interpretation, c. Precaution in interpretation- Interpretation of tables and figures. d. Report writing – Significance of report writing, Steps in writing report, Types of reports.</p> <p>INTERNAL EXAMINER :- DM AND SS</p> <p>FNTACOR14P: RESEARCH METHODOLOGY AND BIOSTATISTICS(PRACTICAL)</p> <p>1. Assignment for calculation of mean, median, mode, standard deviation, standard error of mean and students’ ‘t’ test with provided data.</p> <p>FNTADSE04T: FOOD & BEVERAGE MANAGEMENT (THEORY)</p> <ol style="list-style-type: none"> 1. Introduction to Food Service Introduction to food service industry in India, factors contributing to the growth of food service industry, sectors of food service industry, food service operations, Kinds of food service establishments, environmental factors influencing food service operations, styles of food service. 2. Food Production & Menu Planning Food production methods, food production process, cooking methods ,Menu planning: Importance of menu, Factors affecting menu planning, Menu planning for different kinds of food service units , Food Purchase and Storage, Quantity Food production: Standardization of recipes, quantity food preparation - techniques, recipe adjustments and portion control ,Hygiene and Sanitation 3. Resources of food service establishments Food and beverage staff, organization structure, qualities of food service staff, training; food service equipment; food & beverage pricing, revenue control. 4. Personnel Management, Recruitment, selection, induction, 	<p>DEBASHIS MAZUMDAR</p> <p>SS</p> <p>PS (COMMERCE)</p> <p>PS (COMMERCE)</p> <p>PS (COMMERCE)</p> <p>PS(COMMERCE)</p>	<p>WITHIN JULY</p> <p>WITHIN JULY</p>
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	<p>employee facilities& benefits, safety at work</p> <p>INTERNAL EXAMINER PS</p> <p>INTERDEPARTMENTAL CLASS</p> <p>FNTADSE04P: FOOD & BEVERAGE MANAGEMENT (PRACTICAL) TOTAL HOURS: 60 CREDITS: 2 Planning of A Food Service Unit : Preliminary Planning, Survey of types of units, identifying clientele, menu, operations and delivery Planning the set up a) Identifying resources b) Developing Project plan c) Determining investments d) Project Proposal.</p> <p>FOOD SERVICE UNIT VISIT</p> <p>INTERNAL EXAMINER PS</p>		<p>RCE)</p> <p>PS</p>	
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	<p>FNTADSE06T: NUTRITIONAL MANAGEMENT AND COUNSELLING (THEORY)</p> <p>1. Basics of diet counselling Diet Counselling-meaning, significance, process, types Goals of counselling, individuals, group and family counselling, Basic sequence in counselling, Materials needed for counselling –models, charts, posters, AV aids, Hand outs etc, Communication process in counselling and linguistics in clinical dietary practices,</p>		SP	WITHIN JULY
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	<p>problems in communication Role of Counsellor & Counselee, Techniques of obtaining relevant information- 24 Hour Dietary recall, List of food likes and dislikes, Lifestyle Dietician as a part of medical team and research team, Impact of counselling on health and disease of individuals – discussion of hospital case studies</p> <p>2. Introduction on Psychology and counselling Introduction to psychology – Definition , Nature and Scope Attention and perception – Types of attention and factors influencing attention , principles of perceptual organization and abnormalities in perception learning and memory- Types of learning, Types of memory, Forgetting and its causes motivation and emotion- Types of motives, types of emotions, emotional expression, Personality- nature and definition , factors influencing personality, Psychoanalytic theory of personality Nature and goals of counselling Principles of counselling, Characteristics of a good counsellor, Ethical principles of counselling, Special areas of counselling: Educational, family, health, community and counselling of alcoholic, and drug addicts.</p> <p>3. Counselling Skills Approaches to counselling – Psycho analytic approach, Behaviouristic, Humanistic approach, Pre – Helping phase: Rapport building skills, Attending and listening skills, Stage I skills: Empathy, respect, Genuineness and concreteness, Stage II skills: Advanced empathy, self disclosure, Immediacy and Confrontation. Stage III skills: Goal setting, Action plan Programme and Brainstorming</p> <p>4. Diet Counselling at Hospital and Community Level Role of counselling in hospital, Role of counselling in community, Organizing health camps and patient feedback – at hospital level, Organizing health camps and patient feedback – at community level, Diet counselling for obese people, Diet counselling for Diabetics, Diet counselling for CVD, Diet counselling for</p>	<p>10</p> <p>10</p> <p>10</p>	<p>EXTENSION LECTURE</p> <p>EXTENSION LECTURE</p> <p>SP</p>	<p>WITHIN JUNE 2ND WEEK</p> <p>WITHIN JULY</p> <p>WITHIN JUNE</p>
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	<p>mother and child care, Diet counselling for adolescent, Patient follow up / home visits,geriatric counselling with specific diseases like HIV/AIDS.</p> <p>INTERNAL EXAMINER:- SP</p> <p>FNTADSE06P: NUTRITIONAL MANAGEMENT AND COUNSELLING (PRACTICAL) CREDITS: 2 1. Organizing health camps and patient feedback – both at hospital level and community level 2. Diet counselling for mother and child care,adolescent, obese people, Diabetic patient CVD. 3. Patient follow up / home visits</p> <p>INTERNSHIP</p> <p>INTERNAL EXAMINER :- BG</p> <p>6TH SEM G FNTGDSE04T- NUTRITIONAL BIOCHEMISTRY(THEORY)</p> <p>1. Carbohydrate Classes of carbohydrates, Properties and dietary importance of starch, sucrose, lactose, glucose and fructose. Metabolism: Glycolysis, Tricarboxylic acid (TCA) cycle, Gluconeogenesis, Glycogenesis, Glycogenolys</p> <p>2. Protein Classes, properties, functions and secondary structure of protein (alpha helix, beta pleated sheet). Concept and definition: Complete and incomplete proteins, Biological value, Protein Efficiency Ratio (PER), Net Protein Utilisation (NPU), Essential and non-essential amino acids, Deamination, Transamination and Urea cycle.</p> <p>3. Lipid Classes of lipids, Properties and functions of</p>		<p>MS AND SP</p> <p>DP</p> <p>MS</p>	<p>WITHIN JULY</p> <p>WITHIN MAY</p> <p>WITHIN MAY</p>
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Academic Calendar

**Department of Food & Nutrition (Honours)
2021 2nd 4th sem 6th sem CBCS**

	fats, oils and fatty acid (PUFA, MUFA, SFA.			
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Academic Calendar

Department of Food & Nutrition (Honours) 2021 2nd 4th sem 6th sem CBCS

	TFA), Concept of Beta - oxidation of fatty acids	8	MS	WITHIN JUNE
	<p>4. Enzyme Classification, properties and factors affecting enzyme activity. Brief idea on mechanism of enzyme action (Fischer Lock and key model).</p>	6	DP	WITHIN JUNE
	<p>5. Water Definition of water in foods, Wateractivity and its influence on quality and stability of foods,phase transition of food containing water.</p>	6	MS	WITHIN JULY
	<p>FNTGDSE04P- NUTRITIONAL BIOCHEMISTRY(PRACTICAL) CREDITS: 2 1. Qualitative tests for the identification of: Glucose, Galactose, Fructose, Sucrose, Lactose, Starch, Dextrin. 2. Qualitative tests for the identification of - Albumin, Gelatin, Peptone, urea, uric acid. 3. Protein estimation by Biuret and Lowry methods.</p>		ENTIRELY BY DP	WITHIN JULY