

Semester	Course	Topic	Faculty	No of Classes
FIRST SEMESTER	FNT-A-CC-1-1-Th: BASIC FOOD SCIENCE	Basic concept on Food, Nutrition and Nutrients. Classification of Food, Classification of Nutrients.	Sohini Roy	2
		Carbohydrates - Definition, Classification, Structure and properties. Monosaccharides - glucose, fructose, galactose. Disaccharides - Maltose, lactose, sucrose Polysaccharides - Dextrin, starch, glycogen, resistant starch. Carbohydrates - Sources, daily requirements, functions. Effects of too high and too Low carbohydrates on health. Digestion and absorption of carbohydrate.	Sohini Roy	12
		Lipids -Definition, Classification & Properties. Fatty acids-composition, properties, types. Lipids - sources, daily requirements, functions. Digestion & Absorption of nutrients. Role & nutritional significances of PUFA, MUFA, SFA, W-3 fatty acid.	Arpita Srimani	8
		Proteins- Definition, Classification, Structure & properties. Amino acids, Classification, types, functions. Proteins - Sources, daily requirements, functions. Effect of too high - too low proteins on health. Digestion & absorption. Assessment of Protein quality (BV, PER, NPU). Factors affecting protein bio-availability including anti-nutritional factors.	Arpita Srimani	8
		Continuous Internal Evaluation (VIVA- VOCE)	Sohini Roy	2
	FNT-A-CC-1-1-P: FOOD SCIENCE (PRACTICAL)	Identification of Mono, Di and polysaccharides	Sohini Roy	10
		Identification of Proteins		6
		Identification of glycerol		4
	FNT-A-CC-1-2-Th: HUMAN PHYSIOLOGY-I	Unit of Life: Structure and functions of cell with special reference to Plasma membrane (Fluid Mosaic Model), Mitochondria, Ribosome, Endoplasmic reticulum.Nucleus (nuclear membrane, nuclear chromatin and nucleolus).Nucleotide, Homeostasis, Positive and negative feed back	Debarati Mukherjee	4
		Circulatory and Cardiovascular system:Blood and its composition, formed elements, Blood groups, Mechanism of blood coagulation, Introduction to immune system, Erythropoiesis and anaemia, Structure and functions of heart, Cardiac cycle, cardiac output, blood pressure and its regulation.		8
		Digestive System:Structure and functions of G.I. tract, Process of digestion and absorption of food, Structure and functions of liver, gallbladder and pancreas.		6
		Respiratory System:Structure of Lungs and gaseous exchange (oxygen and carbon dioxide transport).		6
		Musculoskeletal System: Formation and functions of muscles, bones.Mechanism of muscle contraction, isometric and isotonic muscle contraction.		6
		Continuous Internal Evaluation (VIVA- VOCE)		2
	FNT-A-CC-1-2-P: HUMAN PHYSIOLOGY-I(PRACTICAL)	Determination of pulse rate in Resting condition and after exercise (30 beats/10 beats method)	Debarati Mukherjee	2
		Determination of blood pressure by Sphygmomanometer (Auscultatory method)		4
		Measurement of Peak Expiratory flow rate		2
		Determination of Bleeding Time (BT) and Clotting Time (CT).		4
Detection of Blood group (Slide method)		4		
Measurement of Haemoglobin level (Sahli's or Drabkinmethod).		4		

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SECOND SEMESTER	FNT-A-CC-2-3-Th: BASIC FOOD SCIENCE-II	Dietary Fibre-Classification, sources, composition, properties & nutritional significance	Sohini Roy	5
		Minerals & Trace Elements, Bio-Chemical and Physiological Role, bio-availability & requirements, sources, deficiency & excess (Calcium, Sodium, Potassium Phosphorus, Iron, Fluoride, Zinc, Selenium, Iodine, Chromium)	Arpita Srimani	10
		Vitamins - Bio-Chemical and Physiological Role Physiological role, bio-availability and requirements, sources, deficiency & excess.	Sohini Roy	10
		Water - Functions, daily requirements, Water balance	Arpita Srimani	5
		Continuous Internal Evaluation (QUIZ)	Arpita Srimani	2
	FNT-A-CC-2-3-P: BASIC FOOD SCIENCE-II	Determination of Ash content in food	Debarati Mukherjee	4
		Determination of Moisture content in food	Debarati Mukherjee	4
		Determination of calcium, iron, and Vitamin C content in foods	Sukla Ghosh (Chem)	12
	FNT-A-CC-2-4-Th: HUMAN PHYSIOLOGY-II	Excretory system: Structure and function of skin, regulation of temperature of the body, Structure and functions of kidney in special reference to nephron, Physiology of urine formation.	Debarati Mukherjee	8
		Reproductive system: Structure and functions of gonads, concept on menstrual cycle, Brief idea of pregnancy, parturition, lactation and menopause. Brief concept on spermatogenesis and Oogenesis process.		8
		Nervous System: Concept on sympathetic and parasympathetic nervous system, Brief anatomy and functions of cerebrum, cerebellum, hypothalamus and neuron, Concept on synapse and synaptic transmission. Reflexes, Special senses.		8
		Endocrine system: Structure and functions of pituitary, thyroid, parathyroid and adrenal gland, Structure and functions of pancreas.		6
		Continuous Internal Evaluation (Power Point Presentation)		2
	FNT-A-CC-2-4-P: HUMAN PHYSIOLOGY-II (PRACTICAL)	Harvard Step test	Debarati Mukherjee	2
		Identification with reasons of histological slides (Lung, Liver, Kidney, Small intestine, Stomach, Thyroid, Adre		6
		Qualitative determination of glucose acetone in urine		6
		Blood film staining and identification of different types of blood cells.		6

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THIRD SEMESTER	FNT-A-CC-3-5-Th: HUMAN NUTRITION-I	Concept and definition of terms-Nutrition, Malnutrition and Health: Scope of Nutrition	Sohini Roy	3
		Minimum Nutritional Requirement and RDA: formulation of RDA and Dietary Guidelines Reference Man and Reference Woman, Adult consumption unit		6
		Energy in Human Nutrition: Idea of Energy and its unit, Energy Balance, Assessment of Energy Requirements—deficiency and excess, Determination of Energy in food, B.M.R. and its regulation, S.D.A.		8
		Growth & Development from infancy to adulthood: Somatic, physical, brain and mental development, puberty, menarch, pre-pubertal and pubertal changes, Factors affecting growth and development. Importance of Nutrition for ensuring adequate development.	Arpita Srimani	8
		Growth monitoring and promotion: Use of growth charts and standards, Prevention of growth faltering		5
		Continuous Internal Evaluation (VIVA- VOCE)	Sohini Roy	2
	FNT-A-CC-3-5-P: HUMAN NUTRITION-I (PRACTICAL)	Process involved in cooking: pressure cooking, microwave ,steaming, grilling ,deep fat frying	Arpita Srimani	4
		General concepts of weights and measures. Eye estimation of raw and cooked foods		2
		Preparation of food from different food groups and their significance in relation to health		6
		Preparation of supplementary food for different age group and their nutritional significance		6
		Planning and preparation of low cost diet for Grade I and Grade II malnourished child		4
	FNT-A-CC-3-6-Th: COMMUNITY NUTRITION	Concept of Community, types of Community, Factors affecting health of the Community	Arpita Srimani	4
		Nutritional Assessment and Surveillance: Meaning, need, objectives and importance		4
		Nutritional assessment of human: Clinical findings, nutritional anthropometry, biochemical tests, biophysical methods.	Sohini Roy	8
		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		6
		Clinical Signs: Need & Importance's, identifying signs of PEM, vitamin A deficiency and iodine deficiency, Interpretation of descriptive list of clinical signs		8

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THIRD SEMESTER	FNT-A-CC-3-6-Th: COMMUNITY NUTRITION	Nutritional anthropometry:Need and importance, standard for reference, techniques of measuring height, weight, head, chest and arm circumference, interpretation of these measurements. Use of growth chart.	Sohini Roy	4
		International, national, regional agencies and organisations. Nutritional intervention programmes to combat malnutrition.	Arpita Srimani	6
		Continuous Internal Evaluation (VIVA- VOCE)	Arpita Srimani	2
	FNT-A-CC-3-6-P:COMMUNITY NUTRITION (PRACTICAL)	Anthropometric Measurement of infant - Length, weight, circumference of chest, mid-upper arm circumference, precautions to be taken.	Sohini Roy	4
		Comparison with norms and interpretation of the nutritional assessment data and its significance. Weight for age, height for age, weight for height, body Mass Index (BMI) Waist - Hip Ratio (WHR). Skin fold thickness.		6
		Growth charts - plotting of growth charts, growth monitoring and promotion		2
		Clinical assessment and signs of nutrient deficiencies specially PEM (Kwashiorkor, marasmus) I vitamin A deficiencies, Anaemia, Rickets, B-Complex deficiencies		4
		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.		4
	FNT-A-CC-3-7-Th: FOOD COMMODITIES	Cereals and Millets: Structure, processing, storage, use in various preparation, variety, selection and cost. Cereal products, breakfast cereals, fast food.	Sohini Roy	4
		Pulses and Legumes: Structures, Selection and variety. Storage, Processing and use in different preparations, Nutritional aspects and cost.	Arpita Srimani	4
		Milk and Milk products : Composition, Classification, Selection Quality and Cost, Processing, Storage and uses in different preparations, Nutritional aspects, shelf life and spoilage	Arpita Srimani	3
		Eggs: Production, grade, quality selection, storage and spoilage, cost nutritional aspects and use in different preparations.	Sohini Roy	3
		Meat, Fish and Poultry: Types, Selection, Purchase, Storage, Uses, preparations Cost, Spoilage of fish Poultry and meat.	Arpita Srimani	5
		Vegetables and Fruits: Variety, Selection, purchase, storage, availability causes and nutritional aspects of raw and processed products and use in different preparations.	Sohini Roy	6
		FNT-A-CC-3-7-Th: FOOD COMMODITIES	Sugar and sugar Products: Types of natural, sweeteners, manufacture, selection, storage and use as preserves, stages in sugar cookery	Arpita Srimani

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THIRD SEMESTER	FNT-A-CC-3-7-Th: FOOD COMMODITIES	Fats and Oils: Types and sources (animal and vegetable), Processing, uses in different preparations, storage, cost and nutritional aspects.	Arpita Srimani	2
		Raising and Leavening agents: Types, constituents, uses in cookery and bakery, storage	Sohini Roy	2
		Food Adjuncts: Spices, condiments, herbs, extracts; concentrates essences, food colours, origin, classification, description,uses, specifications, procurements and storage.	Sohini Roy	2
		Convenience Foods: Role, types, advantages, uses, cost and contribution to diet.	Sohini Roy	2
		Salt: Types and uses	Arpita Srimani	2
		Beverages: Tea; Coffee. Chocolate and Cocoa Powder-Processing, cost and nutritional aspects, other beverages-Aerated beverages, juices.	Sohini Roy	3
		Continuous Internal Evaluation (QUIZ)	Sohini Roy	2
	FNT-A-CC-3-7-P: FOOD COMMODITIES (PRACTICAL)	Detection of starch, sucrose, sucrose, formalin, boric acid, and urea in milk.	Arpita Srimani	6
		Detection of urea in puffed rice		2
		Detection of Vanaspati in Ghee/Butter		2
		Detection of Khesari flour in besan.		2
		Detection of Metanil yellow in turmeric/coloured sweet products.		2
		Detection of Argemone oil in edible oil.		2
		Detection of artificially colour / foreign matter in tea (dust/leaves).		2
	FNT-A-SEC-A-3-1-Th: SPORTS NUTRITION	Definition of physical activity, exercise, physical fitness, sports physiology and sports nutrition.	Debarati Mukherjee	4
		Benefits of physical activity and exercise.		4
		Classification of Sports activities		6
		Nutritional requirements of sports person.		6
		Pre- event meal.		6
		Continuous Internal Evaluation (Group Discussion)		2

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FOURTH SEMESTER	FNT-A-CC-4-8-Th: HUMAN NUTRITION-II	Nutrition During Pregnancy:Factors (non-nutritional) affecting pregnancy outcome, importance of adequate weight gain during pregnancy, antenatal care and its schedule, Nutritional requirements during pregnancy and modification of existing diet and supplementation, Deficiency of nutrients, specially energy, iron folic acid, protein, calcium, iodine. Common problems of pregnancy and their managements, specially - nausea, vomiting, pica, food aversions, pregnancy induced hypertension, obesity, diabetes. Adolescent pregnancy	Sohini Roy	12
		Nutrition during Lactation:Nutritional requirements during lactation, dietary management, food supplements, galactogogues, preparation for lactation. Care and preparation of nipples during breast feeding	Sohini Roy	10
		Nutrition during Infancy:Infant physiology relevant to feeding and care, Breast feedingcolostrum, its composition and importance in feeding, Initiations of breast feeding. Advantages of exclusive breast feeding.Basic principles of breast feeding. Introduction of supplementary foods, initiation and management of weaning, Baby-led weaning. Bottle feeding-circumstances under which bottle feeding is to be given. Care & sterilization of bottles.Preparation of formula. Mixed feeding, breast feeding and artificial feeding	Arpita Srimani	8
		Management of preterm and low birth weight babies	Arpita Srimani	3
		Nutritional needs of toddlers, preschool, school going children-and adolescents- Dietary management.	Arpita Srimani	6
		Continuous Internal Evaluation (VIVA- VOCE)	Arpita Srimani	1
	FNT-A-CC-4-8-P: HUMAN NUTRITION-II (PRACTICAL)	Planning and preparation of adequate meal for different age groups with special reference to different physiological conditions: infants, pre-schooler, school children, adolescents, adults, pregnancy, lactation and old age.	Arpita Srimani	20
	FNT-A-CC-4-9-Th: DIET THERAPY-I	Basic concepts of diet therapy: Therapeutic adaptations of normal diet, principles and classification of the therapeutic diets.	Sohini Roy	6
		Team approach to health care. Assessment of Patient's needs.	Sohini Roy	1
		Routine Hospital Diets: Regular, light, soft, fluid, parenteral and enteral feeding	Sohini Roy	4
		Diets for different febrile conditions: influenza, malaria and typhoid.	Arpita Srimani	8
		Etiological factors, symptoms, and management of common diseases of stomach-Gastritis and Peptic ulcer.	Sohini Roy	4
		Etiology, symptoms, and management of intestinal diseases: Diarrhoea, steatorrhoea, Diverticular disease, inflammatory bowel disease, Ulcerative Colitis, Flatulence, Constipation, Irritable Bowel Syndrome.	Sohini Roy	10
		Diseases of the liver and Biliary System: Liver function tests. Etiology, symptoms, dietary care and general management of Viral Hepatitis and Cirrhosis of liver. Dietary care and management of Gall Bladder diseases –Cholecystitis and Cholelithiasis.	Arpita Srimani	8
		Anaemias: General concept, aetiology, classification, and dietary management of Nutritional anaemia.	Arpita Srimani	3
	Continuous Internal Evaluation (Power point Presentation)	Sohini Roy	2	
	FNT-A-CC-4-9-P: DIET THERAPY-I (PRACTICAL)	Planning and preparation of normal diets.	Sohini Roy	2
		Planning and preparation of fluid diets.		4
		Planning and preparation of soft/semi solid diets.		6
		Planning and preparation of Diets for the following diseases: i) Peptic ulcer ii) Viral hepatitis iii) Anaemia		6
FNT-A-CC-4-10Th: NUTRITIONAL BIOCHEMISTRY-I	Introduction to Biochemistry: Definition, objectives, scope and inter relationship between biochemistry and other biological science.	Debarati Mukherjee	2	
FNT-A-CC-4-10Th: NUTRITIONAL BIOCHEMISTRY-I	Enzymes: Definition, types and classification of enzymes, definition and types of coenzymes, Functions of coenzymes and cofactors, Specificity of enzymes, Isozymes, enzyme Kinetics including factors affecting enzyme action, velocity of enzyme catalysed reactions, regulations of enzyme activity, zymogen, allosteric enzymes, enzyme inhibition.	Debarati Mukherjee	6	

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FOURTH SEMESTER	FNT-A-CC-4-10Th: NUTRITIONAL BIOCHEMISTRY-I	Intermediary metabolism: Carbohydrate Metabolism, Glycolysis, TCA cycle & energy generation, HMP Shunt pathway, gluconeogenesis, glycogenesis, glycogenolysis, blood sugar regulation	Debarati Mukherjee	12
		Lipids: Oxidation and biosynthesis of fatty acids (saturated & mono-unsaturated), Synthesis and utilization of ketone bodies, Ketosis, fatty livers, Essential Fatty acids, Cholesterol and its clinical significance.		6
		Continuous Internal Evaluation (VIVA- VOCE)		2
	FNT-A-CC-4-10-P: NUTRITIONAL BIOCHEMISTRY-I (PRACTICAL)	Quantitative estimation of Sugars (Glucose, lactose, starch)	Debarati Mukherjee	6
		Estimation of acid value, iodine value, Saponification value of fats		6
		Estimation of blood Glucose		4
		Estimation of serum cholesterol		4
	FNTA-SEC- B-4-1-Th: NUTRITION AND HEALTH EDUCATION	Concept, objectives and importance of nutrition and health education	Sohini Roy	4
		Principles of health education.	Sohini Roy	3
		Nutrition and health education communication process	Arpita Srimani	6
		Steps in planning health and nutrition education.	Sohini Roy	5
		Methods involved in nutrition and health education	Arpita Srimani	5
Evaluation of nutrition and health education programmes.		Sohini Roy	5	
Continuous Internal Evaluation (DEBATE)	Sohini Roy	2		

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FIFTH SEMESTER	FNT-A-CC-5-11-Th: DIET THERAPY-II	Energy modifications and nutritional care for weight management: Assessment, etiology, complications, prevention and treatment of obesity and underweight.	Arpita Srimani	5
		Diet in disease of the endocrine pancreas: Diabetes Mellitus: Classification, symptoms, diagnosis, management -insulin therapy, oral hypoglycaemic agents, glucose monitoring at home, dietary care and nutrition therapy, meal plan (with and without insulin), special diabetic foods and artificial sweeteners.	Sohini Roy	6
		Hypertension: classification, aetiology, symptoms and dietary management. Diseases of the cardiovascular system: Definition of infarct, ischemia, angina pectoris, myocardial infarction, heart attack and stroke.	Sohini Roy	6
		Atherosclerosis and hyperlipidaemias – classification, symptoms, dietary and lifestyle management.Prevention of cardiovascular diseases	Sohini Roy	4
		Renal Diseases: Etiology, symptoms and dietary management of acute and chronic Glomerulonephritis. Nephrotic syndrome - dietary management. Uraemia – dietary Nephrolithiasis - dietary management. Use of sodium and potassium exchange list.	Arpita Srimani	8
		Continuous Internal Evaluation (VIVA- VOCE)	Arpita Srimani	2
	FNT-A-CC-5-11-P: DIET THERAPY-II (PRACTICAL)	Planning and preparation of Diets for the following diseases: i) Obesity and Underweight ii) Diabetes mellitus iii) Hypertension and Atherosclerosis iv) Acute and chronic glomerulonephritis	Sohini Roy & Arpita Srimani	20
	FNT-A-CC-5-12-Th: NUTRITIONAL BIOCHEMISTRY-II	Brief Introduction of biological membranes to understand molecular transport, Transport of Large molecules, Receptor mediated endocytosis, exocytosis, Molecular aspects of transport; Passive diffusion, facilitated diffusion, active transport.	Debarati Mukherjee	6
		Introduction to Nucleic acids: Structure, replication, transcription, genetic code (in brief) elementary knowledge of biosynthesis of proteins.		5
		Proteins: General reaction of amino acid metabolism, urea cycle. Lipoproteins: Types, composition, role and significance in disease(in brief).		8
		Vitamins: Chemistry and biochemical role of fat soluble vitamins. A. D. E. and K. Water soluble vitamins – B1, B2, B6 niacin and C.		8
		Minerals: Biochemical role of inorganic elements.		5
		Continuous Internal Evaluation (MCQ)		2
	FNT-A-CC-5-12-P: NUTRITIONAL BIOCHEMISTRY-II (PRACTICAL)	Qualitative analysis of amino acids	Debarati Mukherjee	2
		Qualitative analysis of proteins		4
		Estimation of serum Protein		4
		Estimation of serum creatinine		4
		Estimation of serum Urea		2
		Estimation of serum Iron, phosphorus, calcium		6
	FNT-A- DSE-A-5-1-Th: PUBLIC HEALTH	Health and Dimension of Health: Positive health Versus Absence of disease	SL	2
Secondary Sources of Community Health data :Sources of relevant vital statistics of infant, child & maternal mortality rates		SL	4	
FNT-A- DSE-A-5-1-Th: PUBLIC HEALTH	Immunization: Importance and Immunization schedule for children, adults and for foreign travellers	SL	2	

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FIFTH SEMESTER	FNT-A- DSE-A-5-1-Th: PUBLIC HEALTH	Community Water and Waste Management: Importance of water to the community, etiology and effects of toxic agents, water borne infectious agents, sources of water, safe drinking water, potable water, waste and waste disposal, sewage disposal and treatment, solid waste and disposal, liquid waste disposal	SL	5
		Concept of Epidemiology: Study of the epidemiologic approach-determinants of disease preventive & social means	SL	2
		Communicable and infective disease control: Nature of communicable and infectious diseases, infection, contamination, disinfections, decontamination, transmission-direct & indirect, vector borne disease infecting organisms and positive agents, environmental agents and epidemiological principles of disease control.	SL	5
		Public health hazards due to contaminated foods: Food borne infections and intoxications: symptoms, mode of transmission and methods of prevention, investigation and detection of food borne disease out-break.	SL	6
		Continuous Internal Evaluation (VIVA- VOCE)	SL	2
	FNT-A-DSE-A-5-1-P: PUBLIC HEALTH (PRACTICAL)	Preparation of 3 audio visual aids like charts, posters, models related to health and nutrition education.	Sohini Roy	4
		Formulation and preparation of low cost and medium cost nutritious/ supplementary recipe	Arpita Srimani	6
		Field visit(health centre, immunization centre, ICDS, MCH centre, NGOs etc.).	SR &AS	NA
	FNT-A- DSE-B-5-1-Th: FOOD SAFETY AND QUALITY CONTROL	Introduction to Food Safety: Defintion, types of hazard-physical, chemical and biological, factors affecting Food Safety.	Moumita Ghosh	4
		Food Hazards: types of hazard. Physical, chemical hazards (naturally occurring, environmental and intentionally added) and biological (food borne pathogensbacteria, viruses an.d eukaryotes; sea food and shellfish poisoning and mycotoxins) hazards.	Moumita Ghosh	4
		Management of Food Hazard: Need, control of parameters, temperature controlled Food storage.	Moumita Ghosh	5
		Hygiene and Sanitation: Sources of contamination, Control methods using physical and chemical agents,waste Disposal pest and rodent Control, Personnel Hygiene.	Moumita Ghosh	4
		Food Safety Management Tools: Basic concept, prerequisites-GHPs,GMPs. HACCP ,ISO series,TQM - concept and need for quality, components of TQM. Risk Analysis	Moumita Ghosh	8
		Food laws and Standards: International Food Standards-ISO and Codex Alimentarius. National Food Standards (BIS, AGMARK) and Food Laws (PFA andFSSAI).	Moumita Ghosh	5
		Continuous Internal Evaluation (Powerpoint Presentation)	Moumita Ghosh	2
FNTA-DSE-B-5-1-P: FOOD SAFETY AND QUALITY CONTROL (PRACTICAL)	Preparation of project on the above topics and demonstration/ presentation.	Sohini Roy, Arpita Srimani & Debarati Mukherjee	NA	

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SIXTH SEMESTER	FNT-A-CC-6-13-Th: FOOD MICROBIOLOGY	Brief history of food microbiology and introduction to important microorganisms in foods	SL	2
		Cultivation of microorganisms, Nutritional requirements of microorganisms, types of media used, methods of isolation.		4
		Primary sources of microorganisms in foods, physical and chemical methods used in the destruction of microorganism in foods: (Sterilisation & Disinfection).		4
		Fundamentals of control of microorganism in foods: Extrinsic and intrinsic parameters affecting growth and survival of microbes, use of high and low temperature, dehydration, freezing, freeze-drying, irradiation and preservatives in food preservation		6
		Food 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.		6
		Continuous Internal Evaluation (MCQ)		2
		FNT-A-CC-6-13-P: FOOD MICROBIOLOGY (PRACTICAL)		Introduction to microbiology: Use of equipment Understanding and use of compound microscope Use of Autoclave Use of Incubator and Inoculation chamber
	Microscopic identification of microorganisms (prepared slides) : Bacterial, fungal strains		4	
	Preparation of liquid and solid media for culture of microorganisms.		6	
	Staining Techniques to study of Morphology of bacterial cells: Simple staining with methylene blue, methyl violet, carbolfuschin, etc. Differential staining with Gram stain technique		4	
	Microbiological techniques: Pure culture technique-Spread plate, Pour plate and Streak plate		4	
	FNT-A-CC-6-14-Th: FOOD PRESERVATION	Food preservation: definition, objectives and principles of food preservation. Different methods of food preservation.	SL	10
		Preserved Products: Jam, Jelly, Marmalade, Sauces, Pickles, Squashes, Syrups-types, composition and manufacture, selection, cost, storage, uses and nutritional aspects		6
		Food Standards : ISI, Agmark, FPO, MPO, PFA, FSSAI.		4
		Continuous Internal Evaluation (VIVA-VOCE)		2
	FNT-A-CC-6-14-P: FOOD PRESERVATION (PRACTICAL)	Different methods of Food preservation – Drying, Freezing, Frying, canning, bottling etc.	SL	4
		Aseptic handling: Sources of contamination of foods		2
		Preparation of pickles, tomato sauce, chili sauce, jelly, tomato puree, squashes etc.		10
	FNT-A-DSE- A-6-4-Th: GERIATRIC NUTRITION	Definition of ageing, senescence, old age or aged people, gerontology, geriatrics, and Geriatric nutrition. Classification of old population.	Sohini Roy	2

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SIXTH SEMESTER	FNT-A-DSE- A-6-4-Th: GERIATRIC NUTRITION	Physiological and biochemical changes during old age.	Arpita Srimani	6
		Assessment of nutritional status of older adults	Sohini Roy	6
		Nutritional requirements and general dietary guidelines for elderly .	Arpita Srimani	5
		Major nutritional and health problems during old age.	Sohini Roy	5
		Continuous Internal Evaluation (VIVA-VOCE)	Sohini Roy	2
	FNT-A-DSE- A-6-4-P: GERIATRIC NUTRITION(PRACTICAL)	Visit to old- age homes	Sohini Roy	NA
		Preparation of dishes suitable for older person- soft,semisolid and easily digestible balanced diet.		8
	FNNTA-DSE-B-6-3-Th: FOOD FERMENTATION	Food Fermentation- definitions, microorganisms used for food fermentation, and advantages of fermentation.	SL	4
		Batch, Fed batch and Continuous culture. Open and closed system, growth phases Product formation in microbial cultures, factors affecting product formation.		4
		Study of a Bio fermentor - its design and operation, Down Stream Processing and Product recovery		4
		Starter cultures, fermentation starters used in different cereal products		4
		Production of Baker's Yeast		3
		Production and nutritional significance of fermented milk products and vinegar.		3
		Development of a fermented soya products- tofu, natto, miso, tempeh, soy sauce and vegetable products- sauerkraut and kimchi.Nutritional significance of the above products.		4
		Continuous Internal Evaluation (QUIZ)		2
	FNNTA-DSE-B-6-3-P: FOOD FERMENTATION (PRACTICAL)	Demonstration of hygienic handling of equipment and utensils during food fermentation process	SL	4
		Preparation of fermented food- Dahi and yogurt		4
		Preparation of fermented vegetable pickles.		4
		Preparation of different food items from fermented products		6