Course	Course Prerequisite	Expected Outcome
Semester 1 (Honours)		
FNTACOR02T: PHYSIOLOGY IN NUTRITION (THEORY)	**Unit of Life: Cell and Tissue Structure**	1. Draw and define animal cell, cell organelles 2. Distinguish between Eukaryotic and prokaryotic cells 3. List the different organelles and other cellular components 4. Describe the structure, composition of cell membrane and other organelles 5. state the functions of cell, cell membrane and other organelles 6. list the type of cell junctions and state the functions 7. list and describe the different types of transport through cell membrane 8. Explain homeostasis
	2.Blood and body fluids	1. Brief the significance of body fluid 2. List the compartments 3. State the composition, measurement and concentration of body fluids 4. Need for maintenance of water balance
		1. Define Blood 2. List the properties of blood 3. State the composition of: □ blood cells □ plasma □ serum 4. Describe the functions of blood
		State the normal values, separation, properties, origin, functions of Plasma proteins
		State the normal value, morphology, properties, lifespan, fate, functions of red blood cells , White blood cells and Platelets. Briefly the variations in number, variations in size, variations in shape and variations in structure of Red Blood Cells ,White Blood Cells and Platelets.
		Define Erythropoiesis State the site of erythropoiesis □ in fetal life □ in newborn babies, children and adults Explain the process of erythropoiesis □ stem cells □ changes during erythropoiesis □ stages of erythropoiesis Describe the factors necessary for erythropoiesis □ general factors □ maturation factors □ factors necessary for hemoglobin formation
		State the : • normal hemoglobin content • functions of haemoglobin • structure of haemoglobin • types of normal & abnormal hemoglobin

COURSE OUTCOME

Course	Course Prerequisite	Expected Outcome
		Define Immunity and list the types of immunity State the: □ development and processing of lymphocytes □ antigens □ development of cell-mediated immunity □ development of humoral immunity □ natural killer cell □ cytokines □ immunization □ immune deficiency diseases □ autoimmune diseases □ allergy and immunological hypersensitivity reactions
		Define Homeostasis Brief the □ stages of hemostasis □ vasoconstriction □ platelet plug formation □ coagulation of blood
		Define blood clotting List the : □ factors involved in blood clotting □ sequence of clotting mechanism □ blood clot □ anticlotting mechanism in the body □ anticoagulants □ physical methods to prevent blood clotting □ procoagulants □ tests for blood clotting
		1.State the abo blood groups □ landsteiner law □ blood group systems □ abo system □ determination of abo group □ importance of abo groups in blood transfusion □ matching and cross-matching □ inheritance of abo agglutinogens and agglutinins □ transfusion reactions due to abo incompatibility 2. Explain the rh factor □ inheritance of rh antigen □ transfusion reactions due to rh incompatibility □ hemolytic disease of fetus and newborn 3.Brief about other blood groups □ lewis blood group □ mns blood groups □ other blood groups State the importance of knowing blood group

COURSE OUTCOME

Course	Course Prerequisite	Expected Outcome
		Define blood transfusion List the □ precautions □ hazards of blood transfusion □ blood substitutes □ exchange transfusion □ autologous blood transfusion
		explain the lymphatic system □ organization □ drainage □ situation □ lymph nodes □ structure □ functions
	Cardiovascular system	Explain the cardiovascular system: □ heart □ right side □ left side □ septa □ layers of the wall □ pericardium □ myocardium □ endocardium □ valves State the actions of the heart □ chronotropic action □ inotropic action □ dromotropic action □ bathmotropic action List the blood vessels □ arterial system □ venous system □ complications in blood vessels Illustrate the divisions of circulation □ systemic circulation □ pulmonary circulation
		Explain excitability □ electrical potentials in cardiac muscle □ ionic basis of action potential □ spread of action potential through cardiac muscle Explain rhythmicity □ definition □ pacemaker □ electrical potential in sinoatrial node Brief on conductivity □ conductive system in human heart □ velocity of impulses at different parts of conductive system Brief about contractility □ all-or-none law □ staircase phenomenon □ summation of subliminal stimuli □ refractory period

COURSE OUTCOME

Course	Course Prerequisite	Expected Outcome
		Define cardiac cycle List the events: □ divisions and duration □ atrial events □ ventricular events Describe the atrial events □ atrial systole □ atrial diastole Describe the ventricular events □ isometric contraction period □ ejection period □ protodiastole □ isometric relaxation period □ rapid filling phase □ slow filling phase □ last rapid filling phase Specify the intra-atrial pressure changes during cardiac cycle □ significance □ methods of study □ maximum and minimum pressure in atria □ intra-atrial pressure curve Specify the intraventricular pressure changes during cardiac cycle □ significance □ methods of study □ maximum and minimum pressure in ventricles
		State the □ different heart sounds □ importance of heart sounds □ describe different heart sounds □ first heart sound □ second heart sound □ third heart sound □ fourth heart sound Mention triple and quadruple heart sounds □ triple heart sound or gallop rhythm □ quadruple heart sound List the different methods of study of heart sounds □ by stethoscope □ by microphone □ by phonocardiogram
		State about cardiac output Mention the definitions and normal values □ stroke volume,□ minute volume □ cardiac index State ejection fraction and cardiac reserve Mention about variations in cardiac output □ physiological variations □ pathological variations Mention about distribution of cardiac output Describe the factors maintaining cardiac output □ venous return □ force of contraction □ heart rate

Course	Course Prerequisite	Expected Outcome
		□ peripheral resistance List the measurement of cardiac output □ direct methods □ indirect methods Define cardiac catheterization □ definition □ conditions when cardiac catheterization is performed □ procedure
		Define heart rate □ normal heart rate □ tachycardia □ bradycardia Regulation of heart rate Vasomotor center – cardiac center □ vasoconstrictor area □ vasodilator area □ sensory area Motor (efferent) nerve fibers to heart □ parasympathetic nerve fibers □ sympathetic nerve fibers Sensory (afferent) nerve fibers from heart
		Definitions and normal values □ systolic blood pressure □ diastolic blood pressure □ pulse pressure □ mean arterial pressure variations □ physiological variations □ pathological variations determinants of arterial blood pressure □ central factors □ peripheral factors regulation of arterial blood pressure
	Respiratory system	Introduction □ types of respiration □ phases of respiration State the functional anatomy of respiratory tract □ respiratory unit □ structure of respiratory unit □ respiratory membrane □ non-respiratory functions of respiratory tract □ olfaction □ vocalization □ prevention of dust particles □ defense mechanism □ maintenance of water balance □ regulation of body temperature □ regulation of acid-base balance □ anticoagulant function □ secretion of angiotensin-converting enzyme Respiratory protective reflexes □ cough reflex □ sneezing reflex □ swallowing reflex

COURSE OUTCOME

Course	Course Prerequisite	Expected Outcome
		Pulmonary blood vessels □ pulmonary artery □ bronchial artery □ physiological shunt Characteristic features of pulmonary blood vessels □ pulmonary blood flow □ pulmonary blood pressure □ measurement of pulmonary blood flow □ regulation of pulmonary blood flow □ cardiac output □ vascular resistance □ nervous factors □ chemical factors □ gravity and hydrostatic pressure
		Describe exchange of respiratory gases in lungs □ respiratory membrane □ diffusing capacity □ diffusion coefficient and fick law of diffusion □ diffusion of oxygen □ diffusion of carbon dioxide Describe the exchange of respiratory gases at tissue level □ diffusion of oxygen from blood into the tissues □ diffusion of carbon dioxide from tissues into the blood Define respiratory exchange ratio and mention the normal values Define respiratory quotient and mention its normal value
		Explain the transport of respiratory gases □ transport of oxygen □ as simple solution □ in combination with hemoglobin □ oxygen-hemoglobin dissociation curve State the transport of carbon dioxide □ as dissolved form □ as carbonic acid □ as bicarbonate □ as carbamino compounds □ carbon dioxide dissociation curve
		Mention about the regulation of respiration Brief on nervous mechanism □ respiratory centers □ medullary centers □ pontine centers □ connections of respiratory centers □ integration of respiratory centers □ factors affecting respiratory centers Brief on chemical mechanism □ central chemoreceptors □ peripheral chemoreceptors

Course	Course Prerequisite	Expected Outcome
FNTACOR02P: PHYSIOLOGY IN NUTRITION (PRACTICAL)	1. Determination of pulse rate in Resting condition and after exercise (30 beats/10 beats method)	• Explain the method • State the normal values
	2. Determination of blood pressure by Sphygmomanometer (Auscultatory method)	• Explain the method • State the normal values
	5. Determination of Bleeding Time (BT) and Clotting Time (CT).	• Explain the method • State the normal values • Mention the importance of the BT & CT
	6. Detection of Blood group (Slide method).	• Explain the method • State the Different blood groups • Mention the importance of the blood grouping
Semester 2 (Honours)		
FNTACOR04T: HUMAN PHYSIOLOGY (THEORY)	**1.Physiology of excitable cells**	State Muscle physiology Classify muscles depending upon • depending upon striations • depending upon control • depending upon situation
		Illustrate the structure of skeletal muscle State about : Muscle mass • muscle fiber& myofibril Explain the microscopic structure Define and explain the sarcomere List the contractile elements (proteins) of muscle • myosin molecule • actin molecule • tropomyosin • troponin Mention the other proteins of the muscle Explain the sarcotubular system • structures & functions composition of muscle
		Describe the properties of skeletal muscle Excitability □ definitions □ types of stimulus □ qualities of stimulus □ excitability curve or strength-duration curve

Course	Course Prerequisite	Expected Outcome
		Contractility □ types of contraction □ simple muscle contraction or twitch or curve □ contraction time – red muscle and pale muscle □ factors affecting force of contraction □ length-tension relationship □ refractory period Define Muscle tone and state □ maintenance of muscle tone □ abnormalities of muscle tone
		Define and explain the structure of neuromuscular junction Explain the process of neuromuscular transmission □ release of acetylcholine □ action of acetylcholine □ endplate potential □ miniature endplate potential □ fate of acetylcholine List the neuromuscular blockers □ drugs stimulating neuromuscular junction Define motor unit and state number of muscle fibers in motor unit List the disorders of neuromuscular junction □ myasthenia gravis □ eaton-lambert syndrome
	4.Endocrine system	Introduce endocrinology Brief about the : • Cell-to-cell signaling • Chemical messengers • Endocrine glands Mention different endocrine glands Explain about the hormones List the endocrine disorders
		Brief about the chemistry of hormones • steroid hormones • protein hormones • tyrosine derivatives Mention the hormonal action • introduction • hormone receptors State the mechanism of hormonal action • by altering permeability of cell membrane • by activating intracellular enzyme • by acting on genes
		Definethe pituitary gland and list its □ divisions □ development □ regulation of secretions

Course	Course Prerequisite	Expected Outcome
		Define anterior pituitary or adenohypophysis and label the □ parts □ histology □ regulation □ hormones □ growth hormone □ other hormones Define posterior pituitary or neurohypophysis □ parts □ histology □ hormones □ antidiuretic hormone □ oxytocin State the disorders of pituitary gland □ hyperactivity of anterior pituitary □ hypoactivity of anterior pituitary □ hyperactivity of posterior pituitary □ hypoactivity of posterior pituitary □ hypoactivity of anterior and posterior pituitary
		Describe the thyroid gland and state the □ histology of thyroid gland □ hormones of thyroid gland □ synthesis of thyroid hormones □ storage of thyroid hormones □ release of thyroid hormones □ transport of thyroid hormones in the blood List the functions of thyroid hormones Explain the mode of action of thyroid hormones State the disorders of thyroid gland State the importance of thyroid function tests
		Brief about parathormone □ actions of parathormone □ actions on blood calcium level □ actions on blood phosphate level □ mode of action □ regulation of secretion Mention the disorders of parathyroid glands □ hypoparathyroidism – hypocalcemia □ hyperparathyroidism – hypercalcemia □ parathyroid function tests Brief on calcitonin □ actions □ regulation of secretion
		Explain the endocrine function of pancreas and brief about • Islets of langerhans • insulin, glucagon, somatostatin & • pancreatic polypeptide Describe the process regulation of blood glucose level

Course	Course Prerequisite	Expected Outcome
		Mention the importance of adrenal glands State its functional anatomy Identify the histology of adrenal cortex List the hormones released and • Synthesis, transport and fate of adrenocortical hormones State about: • Mineralocorticoids • Glucocorticoids • Adrenal sex hormones • Exogenous steroids Brief on the hypo and hypersecretion of adrenal cortex hormones
		Introduce hormones of adrenal medulla and state the • plasma level of catecholamines • half-life of catecholamines • synthesis of catecholamines • metabolism of catecholamines • actions of adrenaline and noradrenaline specify on mode of action – adrenergic receptors and mention about actions • regulation of secretion of adrenaline and noradrenaline • dopamine Brief on pheochromocytoma
FNTACOR04P: HUMAN PHYSIOLOGY (PRACTICAL)	1. Test for Visual acuity, Colour vision.	Will be able to mention the different charts used for near vision and distant vision tests
	Identification with reasons of histological slides	Label the parts Identify the parts of a section
	4. Total count (TC) and Differential count (DC)	Explain the methodology Explain the process of staining List the pracautions required
Semester 3 (Honours)		
FNTACOR06T: NUTRITION THROUGH LIFE SPAN (THEORY)	**1. Basics of Meal Planning**	• State the principles of meal planning, • Explain the food groups and food exchange list, • Mention the factors affecting meal planning and food related behavior • Enumerate the factors affecting food choices • Describe the aims of meal planning and steps involved • Demonstrate the steps in the development of exchange list • Explain the meal planning of an adult in terms of RDA • Planning low cost meals for a day

Course	Course Prerequisite	Expected Outcome
	5.Nutrition during Infancy	• Describe the physical and physiological changes that occur during growth from infancy to pre-school years • Discuss about the nutritional needs during infancy and preschool-age • Explain the benefits of EBF • Appreciate the need to introduce complementary feeding from 6month onwards • State the RDA of the both age groups • Comment on the kind ,quality and amount of complementary foods for young children and llink it with the nutritional recommendations • Identify nutritionally adequate snacks foods for pre-school children and counsel parents and caregivers to take care of infants and pre-schoolers in health and disease • List the seasonally available and locally available greens, vegetables and fruits that is required to include in the diet of preschoolers • Brief the mode of managing pre-term and low weight babies • State the importance of growth chart • Demonstrate the usage of growth chart • List the immunization schedule
	6. Nutrition for Children and Adolescents	• Describe the characteristic of school years and adolescents • Discuss concept of catch-up growth, ways to reduce gaps in what the child has achieved versus the maximum growth potential • List the recommended dietary intakes for the school children and adolescents , address the range of problems of nutritional and non-nutritional nature in this age group • Discuss the important factors in planning meals and diets for school children and adolescent • Promote good dietary and lifestyle practices to prevent obesity and early onset of degenerative diseases • List the several government facilities extended for school children and adolescents to ensure long term good health
FNTACOR06P: NUTRITION THROUGH LIFE SPAN (PRACTICAL	*Meal planning and preparation of adequate meal for different age groups	Plan meal with special reference to different physiological conditions: • infants, pre-schooler, school children, adolescents

Course	Course Prerequisite	Expected Outcome
FNTACOR07T: ELEMENTARY DIETETICS AND MENU PLANNING (THEORY)	**3. Dietary guidelines**	• Analyze the concept & basis of human nutritional requirement • Explain the importance of nutritive values as a basis for classification of food, • Define the basic terminologies in relation to human nutritional requirements such as minimum requirements, maintenance allowance and recommended Daily Allowances (RDA) • Explain the Dietary guidelines for Indians and food pyramids. • Justify the rationale of my plate concept
	4.Menu Planning	• Present the rationale behind the interesting and challenging tsk of menu planning • Enumerate the factors which influence our food choices, and hence need to be considered in menu planning • Describe the aims of menu planning and the steps involved • Apply the knowledge of menu planning to plan and also quickly calculate ethe nutritive value of the menus for various conditions • Explain the various factors to be kept in mind while planning diets for adults • Critically comment on the scenario of health and nutrition situation of women at various level • Plan a few low cost menus for adults
FNTACOR07P: ELEMENTARY DIETETICS AND MENU PLANNING (PRACTICAL)	**1. Planning and preparation of normal diets.**	• Planning and preparation of normal diets • Justify the method to plan and prepare normal diets • Demonstrate the method of selection of ingredients • Calculate the cost
Semester 4 (Honours)		
FNTACOR09T: EPIDEMIOLOGY AND PUBLIC HEALTH(THEORY)	**1. Introduction on Health**	• Understand and define Health and its importance • Mention the dimension of health, • Define Positive health. • List the determinants of health. • Understand the concept of disease and explain its causations. •
	2. Data of Community health	• Understand the data and need and importance of data • List the Secondary sources of community health data: Indicators of health. • List the roles of various secondary sources of data,

Course	Course Prerequisite	Expected Outcome
		• Importance of Vital Statistics, • Role of Census of India, ICMR, DLHS, NFHS
	3.Epidemiology	• State the Definition of epidemiology, Mention the components and aims of epidemiology, • Enumerate the basic measurements in epidemiology. • Demography and family planning. Brief idea about epidemics. • Explain the different epidemiological methods: analytical epidemiology (case control and cohort study); Experimental epidemiology. • Mention the Infectious diseases in epidemiology. • Explain the dynamics of disease transmission and modes of transmission of disease.
	5.Public health.	• Definition of public health, • Corelate between health and nutrition • Define nutrition, health and public health • Discuss the concept of public health and its scope and future projections • Describe the public health systems as it operates in India
	6. Immunization	• Define Immunization • Explain the host defenses and immunity, • State the immunizing agents: its types, • Illustrate the national immunization schedule- its importance, immunization in adults and travellers, hazards of immunization health advice to foreign travellers. • Can also state the importance of maintainance of cold chain and utility of hub cutter • List the different programmes involved in immunization programme in India • Also understand the launching and importance of new vaccines such as pentavalent • Role of Mission Indradhanush • Importance of maintaining the MCPC card and micro planning •
	7. Community health care	• State about Health care of the community and health care system, • Describe the Primary health care in India, Indian public health standards for subcenters, PHCs, community health centers. Hospital waste management

Course	Course Prerequisite	Expected Outcome
FNTACOR09P: EPIDEMIOLOGY AND PUBLIC HEALTH	**2. Formulation and preparation of low cost and medium cost nutritious recipe**	• Demonstration and preparation of one low cost and medium cost diet • Calculate the cost for the diet • State the benefits of the prepared diet
Semester 5 (Honours)		
FNTACOR11T: CLINICAL NUTRITION AND DIET FOR SPECIAL SITUATIONS IN LIFE (THEORY)	**7. Nutrition Management of Renal Disease**	• Recapitulate and describe physiology of kidneys • Discuss renal function and diagnostic tests • List the common renal disorders • Identify different renal disorders, their etiology , clinical and metabolic manifestations • Rationalize the dietary modifications in different renal disorders , especially in terms of proteins, minerals and fluids • Explain the types of dialysis • Name the commonly available commercial enteral nutrition formulas for renal patients
	9.Neurological diseases	• Identify some common neurological disorders, their etiology and and clinical features • Explain the consequences of these disorderson feeding and nutrition • Suggest feeding and dietary recommendations to meet the needs of these disorders •
FNTACOR11P: CLINICAL NUTRITION ANDDIET FOR SPECIAL SITUATIONS IN LIFE(PRACTICAL)	**Planning and preparation of Diets for the following diseases ii) Viral hepatitis iv) Acute and chronic renal failure**	• Plan the specific diet for the particular disease • State the need and importance of the diet • Plan the menu for a day
FNTACOR12T: FOOD MICROBIOLOGY AND IMMUNOLOGY (THEORY)	**5. Food Fermentations**	• Define Fermentation and mention its types, • List the microorganisms used in food fermentations, • State about dairy Fermentations-starter cultures and their types , concept of probiotics, • List different types of fermentated Foods • Describe the methods of • manufacture for vinegar, sauerkraut, tempeh, miso , soya sauce, beer, wine and traditional Indian foods

Course	Course Prerequisite	Expected Outcome
FNTADSE01T: SPORTS NUTRITION (THEORY)	**1.Introduction to sports nutrition**	• Describe sports nutrition as a discipline evolved with integration of various subjects like exercise physiology, medicine, physical anthropology with nutrition • Explain the basic principles of sports nutrition • Apply nutritional recommendations to the needs of strength/power and endurance athletes and exercise in general • Utilize appropriate tests for measurement of body composition and work capacity • Determine the energy expenditure in sports and exercise using various methods. • Explain the physiology of energy systems.
	2. Activities.	• Classify the type of activities • Mention the energy substrate for activities of different intensity and duration, aerobic and anaerobic activities.
	3.Carbohydrate needs	• State the need and importance of Carbohydrate as an energy source for sport and exercise. • Explain the carbohydrate stores, Fuel for aerobic and anaerobic metabolism • Describe the process of Glycogen re-synthesis, CHO Loading, CHO composition for pre exercise, during and recovery period.,
FNTADSE01P: SPORTS NUTRITION (PRACTICAL)	**1. Calculation of energy requirement according to physical activity level of sports person.**	• Describe the basic principles of sports nutrition • Apply nutritional recommendations to the needs of strength /power and endurance athletes and exercise in general • Plan diet for different sports person • Identify the different nutritional ergogenic aids available in the market
FNTADSE03T: FOOD BORNE DISEASES AND FOOD TOXICOLOGY (THEORY)	**4. Food safety**	• Define Food safety and hazards • classify types of hazards (Biological, chemical and physical hazards), • mention the impact ofdifferent kind of hazards on health, • State the control measures, • Mention the factors affecting food safety. • Describe microorganisms associated with food borne hazards

Course	Course Prerequisite	Expected Outcome
	5.Hygiene and sanitation	• Define sanitation and discuss the types and uses of cleaning compounds • Enumerate various disinfectants or sanitizers • Discuss effective ways of disposing waste • Adopt the practical measures of pest and rodent control • Discuss the health status of of employees handling food • List the criteria of personal hygiene • List the control methods using physical and chemical agents, use of preservatives..
	6. Food safety management	• Brief on Food safety management: Concept of safety management, prerequisites- GHPs, GMP, HACCP etc. • Define HACCP, • Discuss the need , relevance of HACCP in the context of food safety • Enumerate principles of HACCP • Explain guidelines for application of HACCP principles
FNTADSE03P: FOOD BORNE DISEASES AND FOOD TOXICOLOGY (PRACTICAL)	**2. Assessment of personal hygiene.**	• Listing the Pesonal Hygiene • Corelate the personal hygiene with food handling
Semester 6 (Honours)		
FNTACOR13T: FOOD PROCESSING AND FOOD TECHNOLOGY(THEORY)	**5.Food Adulteration**	• Define adulteration • Mention types of adulteration • List the different intentional adulteration done in food products and methods of detection • State the hazards of Adulteration • Brief on toxic effects of some metals and chemicals • Explain the food laws and standards
FNTACOR13P: FOOD PROCESSING AND FOOD TECHNOLOGY(PRACTICAL)	9. Detection of Adulterants in common Food Stuffs	• Detection of Adulterants in common Food Stuffs like Milk, Oil, Laddu, Turmeric etc. • Different test to show the presence of different adulteration
FNTACOR14T: RESEARCH METHODOLOGY AND BIOSTATISTICS(THEORY)	**4. Sampling of data and analysis**	• Enlist the various methods of data analysis • Compute measures of central tendency, variance, standard deviation, measures of relative position and measures of relationship • Describe various methods used for analyzing the qualitative data

Course	Course Prerequisite	Expected Outcome
	5.Preparation of report	• Demonstrate Graphical and diagrammatic presentation. • Interpretation of – Meaning of interpretation, Technique of interpretation, • Enlist the precaution in interpretation- Interpretation of tables and figures. • Steps of report writing – significance of report writing, types of reports.
FNTACOR14P: RESEARCH METHODOLOGY AND BIOSTATISTICS (PRACTICAL)	**1. Assignment for calculation of mean, median, mode, standard deviation, standard error of mean and students' 't' test with provided dat**	• Calculate the mean, median, mode, standard deviation, standard error of mean and students' 't' test with provided data
FNTADSE04T: FOOD & BEVERAGE MANAGEMENT (THEORY)	**2. Food Production & Menu Planning**	• Mention various food production methods, food production process, cooking methods. • State the importance of menu planning: types of menu , • List the factors affecting menu planning • Mention menu planning for different kinds of food service units • Brief about food purchase and storage, Mention about quantity food production: standardization of recipes, quantity food preparation - techniques, • explain about recipe adjustments and portion control ,
FNTADSE05T: DAIRY TECHNOLOGY (THEORY)	**4. Milk fat**	• Mention the Composition and structure of milk fat • List the factors affecting melting point, boiling point, solubility and Refractive Index • Define the fat constants (saponification value, iodine value, RM value, Polenske value, peroxide value). • Explain the chemical reactions of fat (hydrolysis, auto-oxidation), condition favouring auto-oxidation, prevention, measurement of auto-oxidation. •
FNTADSE05P: DAIRY TECHNOLOGY (PRACTICAL)	4. Preparation of Pasteurization of milk.	Importance of Pasturization Different methods of Pasturization

COURSE OUTCOME

Course	Course Prerequisite	Expected Outcome
Semester 1		
FNTGCOR01T:FOOD AND NUTRITION (THEORY)	7. **Deficiency diseases**	Describe the deficiency diseases: • Nutritional anaemia • (Aetiology, Prevalence, Clinical findings, Prevention & Treatment.) • PEM • (Aetiology, Prevalence, Clinical findings, Prevention & Treatment.) • IDD • (Aetiology, Prevalence, Clinical findings, Prevention & Treatment.) • VAD • (Aetiology, Prevalence, Clinical findings, Prevention & Treatment.)
Semester 2		
FNTGCOR02T: **HUMAN BODY AND NUTRITION (THEORY)**	1. **Animal cell**	• Define Animal cell: • Describe the structure of the cell and • functions of different parts. • Briefly state about the organelle
	3. **Cardiovascular and Respiratory system**	• Define Heart: Junctionl tissues and functions. • Describe Cardiac cycle, • Describe cardiac output, • Define blood pressure and its regulation. • Describe the mechanism of respiration, state the respiratory centre. • Explain respiratory regulation.
Semester 3		
FNTGCOR03T: **COMMUNITY, NUTRITION AND HEALTH ASSESSMENT (THEORY)**	3. **Concept of surveillance system**	• State idea of health agencies - FAO, WHO, ICMR, ICDS, ICAR, CSIR, ANP, VHAI, NIN and CFTRI. Role of voluntary health organization in the improvement of Community health.
	5. **Nutrition Education**	• Define Nutrition Education • Mention the objectives of nutrition education. • State the methods of imparting nutrition education.
FNTGCOR03P: **COMMUNITY, NUTRITION AND HEALTH ASSESSMENT (PRACTICAL)**	**5. Preparation of low cost and medium cost school tiffin.**	• Prepare of low cost and medium cost school tiffin.
Semester 4		
FNTGCOR04T: DIETETICS (THEORY)	1. **Concept on Diet therapy**	• Define and mention the objective of dietetics, Define diet therapy, • Mention role and responsibility of Dieticians; • State the principles and classification of the therapeutic diet..

Course	Course Prerequisite	Expected Outcome
	3. **Hospital diet**	• Define hospital diet • Types of hospital diet • Explain about : • regular, soft, fluid, • Describe the special feeding methods, also mention the advantages and disadvantages
Semester 5		
DSE SYLLABUS FNTGDSE01T- PUBLIC HEALTH NUTRITION (THEORY)	**4. Immunization**	• Define Immunization • State the importance and Immunization Mention the schedule for children and adults. • List the hazards of immunization
	6.Contamination of water	• Explain about contamination of water and prevention of contamination, • State the different methods of water purification, water • Mention the water borne diseases, Brief about microbiology of water-borne pathogens, • Explain the causes, prevention and dietary management of : diarrhoea, dysentery, typhoid, hepatitis.
FNTGDSE01P- PUBLIC HEALTH NUTRITION (PRACTICAL)	2. **Formulation and demonstration of nutrition education tools such as charts, posters, models related to health and nutrition education.**	Demonstration and preparation of BCC material
Semester 6		
FNTGDSE03T-FOOD COMMODITIES (THEORY)	**2. Semi Perishable Food Commodities**	• State about Fruits and Vegetable • Classify fruits and vegetables • State the composition and nutritive values of both vegetables and fruits • Mention about the different pigments, flavour compounds • List on the desirable characteristics of different vegetables and fruits • Explain the changes occurring during cookery and preliminary preparation • State the process of storing • Introduce Fats and Oils- • Mention its composition, types, processing, products, uses in Indian cookery. • Define emulsions, rancidity , smoking point • Role of fat and oil in cookery

Course	Course Prerequisite	Expected Outcome
	4. Beverages	• Introduce beverages and appetisers • Calssify beverages and appetisers • Briefly describe on plantation,types, processing, methods of preparing Tea; Coffee. Chocolate and Cocoa • List the nutritional aspect of Tea; Coffee. Chocolate and Cocoa • Mention about other beverages- Aerated beverages, juices