

Savitribai Phule Pune University
(Formerly University of Pune)



Third Year B.Sc. Program in Home Science
(Faculty of Science and Technology)

T.Y. B.Sc.

Food Science and Nutrition

And

Textile and Clothing

To be implemented from
Academic Year 2026-2027
(As per NEP 2020)

INTRODUCTION TO UNDERGRADUATE DEGREE COURSE IN HOME SCIENCE

As per the recommendations of UGC-F-2022, the undergraduate (UG) degree course in Home Science is a 8- semester course spread over 4-academic years. The Teaching Learning Process (TLP) is students' centric. It involves both theory and practical components. It offers a flexibility of program structure while ensuring that the student gets a strong foundation in the subject and gains in depth knowledge. Besides the (Major Core), a student have options courses from the syllabus comprising of (Minor), GEs, SECs, IKSs and VSCs. Hence, this will be bring out the interdisciplinary as well as multidisciplinary approach and adherence to innovative ways within the curriculum framework. It also allow a students' maximum flexibility in pursuing her studies at the undergraduate (UG) level to the extent of having the liberty to eventually design the degree with multiple exit options. Students have these exits options depending upon the needs and aspirations of the student in terms of her goals of life, without compromising on the teaching learning, both in qualitative and quantitative terms. This will suit the present day needs of students in terms of securing their paths towards higher studies or employment.

Savitribai Phule Pune University, Pune

Credit Framework for Under Graduate (UG) (2024 – 25) (3 Subject) for faculty of Science and Technology

Level/ Difficulty	Sem	Subject-1				Subject-2	Subject-3	GE/OE	SEC	IKS	AEC	VE C	CC	Total
4.5 / 100	I	2 (T) + 2 (P)				2(T)+2(P)	2(T)+2 (P)	2 (T)	2 (T/P)	2 (T) (Generic)	2 (T)	2	--	22
	II	2 (T) + 2 (P)				2(T)+2(P)	2(T)+2 (P)	2 (P)	2 (T/P)	--	2 (T)	2	2	22
Exit option: Award of UG Certificate in Major with 44 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor Continue option: Student will select one subject among the (subject 1, subject 2 and subject 3) as major and another as minor and third subject will be dropped.														
Level/ Difficulty	Sem	Credits Related to Major				Minor		GE/OE	SEC	IKS	AEC	VE C	CC	Total
		Major Core	Major Elective	VSC	FP / OJT/ CEP									
5.0 / 200	III	4 (T) + 2 (P)	--	2 (T/P)	2 (FP)	2(T)+2(P)	--	2 (T)	--	2 (T) (Major Subject Specific)	2 (T)	--	2	22
	IV	4 (T) + 2 (P)	--	2 (T/P)	2 (CEP)	2(T)+2(P)	--	2 (P)	2 (T/P)	--	2 (T)	--	2	22
Exit option: Award of UG Diploma in Major and Minor with 88 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor														
5.5 / 300	V	8(T) + 4(P)	2 (T) + 2 (P)	2 (T/P)	2 (FP/CEP)	2(T)	--	--	--	--	--	--	--	22
	VI	8(T) + 4(P)	2 (T) + 2 (P)	2 (T/P)	4 (OJT)	--	--	--	--	--	--	--	--	22
Total 3 Years		44	8	8	10	18	8	8	6	4	8	4	6	132
Exit option: Award of UG Degree in Major with 132 credits OR Continue with Major and Minor														
6.0 / 400	VII	6 (T) + 4 (P)	2 (T) + 2 (T/P)	--	4 (RP)	4(RM)(T)	--	--	--	--	--	--	--	22
	VIII	6 (T) + 4 (P)	2 (T) + 2 (T/P)	--	8 (RP)	0	--	0	0	0	0	0	0	22
Total 4 Years		64	16	8	22	22	8	8	6	4	8	4	6	176
Four Year UG Honours with Research Degree in Major and Minor with 176 credits OR														
6.0 / 400	VII	10(T) + 4(P)	2 (T) + 2 (T/P)	0	0	4 (RM) (T)	--	0	0	0	0	0	0	22
	VIII	10(T) + 4(P)	2 (T) + 2 (T/P)	0	4 (OJT)	0	--	0	0	0	0	0	0	22
Total 4 Years		72	16	8	14	22	8	8	6	4	8	4	6	176
Four Year UG Honours Degree in Major and Minor with 176 credits														

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TY B.Sc. STRUCTURE (FSN) 2026-27 NEP-2020
SEMESTER V (FSN)) Food Science and Nutrition

Course code	Course Type	Course Name	Teaching Scheme Hrs/Week		Examination Scheme and Marks			Credits		
			TH	PR	CE	EE	Total	TH	PR	Total
FSN-301-MJ	Major	Nutritional Biochemistry	04		30	70	100	04	--	04
FSN-302-MJP		Nutritional Biochemistry(Pr)	--	04	15	35	50	00	02	02
FSN-303-MJ	Major	Diet Therapy	04	--	30	70	100	04	--	04
FSN-304-MJP		Diet Therapy(Pr)	--	04	15	35	50	00	02	02
FSN-305-MJ	Major Elective	Food Hygiene and Sanitation	02	--	15	35	50	02	--	02
FSN-306-MJP	Major Elective	Food Hygiene and Sanitation(Pr)		04	15	35	50	00	02	02
FSN-307-MJ	Major Elective	Nutrition for Health and Fitness	02	--	15	35	50	02	--	02
FSN-308-MJP	Major Elective	Nutrition for Health and Fitness(Pr)	---	04	15	35	50	00	02	02
HSC-321-VSC	VSC	Entrepreneurship Management (Th)	02	--	15	35	50	02	--	02
FSN-331RP	RP	Research Project		04	15	35	50	00	02	02
HSC-341-MN	Minor	Theories of Human Development	02	--	15	35	50	02	00	02
				Total	165	385	550	14	08	22

SEMESTER VI (FSN) Food Science and Nutrition

Course code	Course Type	Course Name	Teaching Scheme Hrs/Week		Examination Scheme and Marks			Credits		
			TH	PR	CE	EE	Total	TH	PR	Total
FSN-351-MJ	Major	Community Nutrition	04	--	30	70	100	04	--	04
FSN-352-MJP		Community Nutrition	--	04	15	35	50		02	02
FSN-353-MJ	Major	Institutional Food service Management	04	--	30	70	100	04	--	04
FSN-354-MJP		Institutional Food service Management	-	04	15	35	50		02	02
FSN-355-MJ	Major Elective	Food Safety and product Development	02	--	15	35	50	02	-	02
FSN-356-MJP	Major Elective	Food Safety and product Development (Pr)	-	04	15	35	50	--	02	02
FSN-357-MJ	Major Elective	Food Analysis	02		15	35	50	--	02	02
FSN-358-MJP	Major Elective	Food Analysis (Pr)	--	04	15	35	50	02	--	02
HSC-371-VSC	VSC	Entrepreneurship Management (Pr)		04	15	35	50		02	02
FSN-381-OJT	OJT	Internship		08	30	70	100		04	04
		Total		Total	165	385	550	10	12	22

TY B.Sc. STRUCTURE (TC) Textile and Clothing 2026-27 NEP-2020

Course code	Course Type	Course Name	Teaching Scheme Hrs/Week		Examination Scheme and Marks			Credits		
			TH	PR	CE	EE	Total	TH	PR	Total
TC-301-MJ	Major	Traditional Textile of India	04		30	70	100	04	--	04
TC-302-MJP		Fashion Illustration	--	04	15	35	50	00	02	02
TC-303-MJ	Major	Pattern making and Apparel Designing	04	--	30	70	100	04	--	04
TC-304-MJ		Pattern making and Apparel Designing	--	04	15	35	50	00	02	02
TC-305-MJ	Major Elective	Computer Aided Design (CAD)	02	--	15	35	50	02	--	02
TC-306-MJP	Major Elective	Computer Aided Design (CAD)		04	15	35	50	00	02	02
TC-307-MJ	Major Elective	Fashion Forecasting and Range Development	02	--	15	35	50	02	--	02
TC-308-MJP		Fashion Forecasting and Range Development	---	04	15	35	50	00	02	02
HSC-321-VSC	VSC	Entrepreneurship Development	02	--	15	35	50	02	--	02
TC-331-RP	RP	Research Project		04	15	35	50	00	02	02
HSC-342-MN	Minor	Women Studies	02	--	15	35	50	02	00	02
		Total		Total	165	385	550	14	08	22

SEMESTER VI (TC) Textile and Clothing

Course code	Course Type	Course Name	Teaching Scheme Hrs/Week		Examination Scheme and Marks			Credits		
			TH	PR	CE	EE	Total	TH	PR	Total
TC-351-MJ	Major	Textile Testing and Quality Control	04	--	30	70	100	04	--	04
TC-352-		Textile Testing and Quality	--	04	15	35	50		02	02

MJP		Control (Pr)									
TC-353-MJ	Major	Surface Embellishment	04	--	30	70	100	04	--	04	
TC-354-MJP		Surface Embellishment (Pr)	-	04	15	35	50		02	02	
TC-355-MJ	Major Elective	Textile Design	02	--	15	35	50	02	-	02	
TC-356-MJP	Major Elective	Textile Design (Pr)	-	04	15	35	50	--	02	02	
TC-357-MJ	Major Elective	Retailing and Merchandising Management	02		15	35	50	--	02	02	
TC-358-MJP	Major Elective	Retailing and Merchandising Management (Pr)	--	04	15	35	50	02	--	02	
HSC-371-VSC	VSC	Entrepreneurship Development (Pr)		04	15	35	50		02	02	
TC-381-OJT	OJT	Internship		08	30	70	100		04	04	
				Total	165	385	550	10	12	22	

FSN-301-MJ-Nutritional Biochemistry

Lectures-60

Credits-04

Course Objectives:

1. Develop an understanding of the principles of Biochemistry as applicable to Human Nutrition
2. Obtain an insight into the Biochemistry of digestion and absorption of major nutrients
3. Apply the acquired knowledge in Human Nutrition and Dietetics
4. Develop the ability to apply the significance of these processes to different physiological / metabolic conditions

UNIT	CONTENT	LECTURES
I	Introduction to Biochemistry: Definition, objectives, scope and inter relationship between biochemistry and other biological science. Digestion and absorption of Carbohydrate, Protein and Lipids	05
II	Carbohydrate metabolism: Classification of Carbohydrate Various Biological pathways -- site, significance, with, enzymes, Glycolysis, TCA[Kreb's cycle], Gluconeogenesis, Glycogenesis Glycogenolysis Disorder-1)Galactosemia2)Lactose Intolerance	15
III	Lipid Metabolism: Biosynthesis of fattyacids, Ketosis and Ketogenesis Synthesis of Triglycerides Introduction ofCholesterol–Control of cholesterol metabolism	15

	Metabolism of Lipoproteins, LDL, HDL and VLDL Disorder-1)Hyperlipoproteinemias 2)Fatty liver3)Atherosclerosis	
IV	Protein Metabolism Transamination Oxidative and non oxidative De-amination Urea cycle –pathway with structures Uric acid and gout Metabolic. Metabolism of Ammonia-- Formation of glutamate,Formation of Glutamine Disorder1) Phenylketonurea alkaptonurea ,AlbinismTrans-amination – with diagrammatic representation,role of pyridoxine,significance Uric acid and gout	15
V	I)Enzymes Definition, classification.. Factors affecting enzymes. Enzyme inhibition. Role of coenzymes II) Hormone Introduction, Classification III)Nutraceuticals and phytochemicals	10

FSN-302-MJP-Nutritional Biochemistry-Pr

Lectures-60

Credits-02

Practicals:

1. Qualitative Estimation of Normal Constituents of Urine.
2. Qualitative Estimation of Carbohydrates
3. Abnormal Constituents of Urine.

Quantitative Estimation in Urine.

4. Urea
5. Uric acid
6. Glucose

Quantitative estimation in serum/blood.

7. Urea
8. Total protein
9. Albumin
10. Cholesterol

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4. Apps D.K. and Cohen B.B. and Steel C.M. "Biochemistry: A Concise Text for Medical Students" (1992), Bailliere Tindall,
5. Debajyoti D, "Biochemistry" 2nd Edition, (1980) Academic Publishers,.
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13. Godkar P.B. Godkar D.P Textbook of Medical Laboratory Technology (2006), 2nd Edition, Bhalani Publishing House.
14. Burtis C.A, Ashwood E.R, Bruns D.E. (2007), "Tietz Fundamentals of Clinical Chemistry", 6th Edition

FSN-303-MJ- Diet Therapy

Lectures-60

Credits-04

Course Objectives:

1. Understand the basic principles of diet therapy.
2. Be aware of the physiological changes associated with specific diseases.
3. Understand the relationship between dietary modifications and physiological changes observed in specific disease conditions.
4. Acquire the ability to modify the normal diet to suit individual needs in specific disease conditions.

UNIT	CONTENT	LECTURES
I	Dietary counseling Counseling process & its significance Assessment of need of patient Establishing support Communication process Patient education	05
II	Dietary management in cardiovascular disorders Coronary artery disease, Atherosclerosis, Role of Fat in the development of Atherosclerosis Hypertension classification (mild, moderate, severe) Hypercholesterolemia Dietary modification and low sodium foods and salt alternatives. Fat Substitute Physical activity and Heart Disease Dyslipidemia a) Role of diet in management of high cholesterol	15

	b) Role of diet in management of high Triglycerides Role of Omega3 in management of dyslipidemia	
III	Modification of diet in GI disorders: Peptic ulcer, diarrhea, constipation. Etiology, symptoms and principles of diet in the specific conditions, drugs commonly used. Other terms: Achlorhydria, Dumping syndrome, endoscopy	10
IV	Diet in Renal Disorders: Physiology of Kidney. Causes of renal disorders.(in brief) Introduction to acute and chronic nephritis. Principle of Diet therapy in Renal calculi etiology symptoms. Modification of the diet Renal calculi for types of stones. Alkaline and acid ash diet	10
V	Diet in Liver disorders: Functions of the liver. Dietary modification for: Infective hepatitis- causes, symptoms, modification of the diet. Cirrhosis of liver-symptoms and modification of the diet. Terms: Ascites, Oesophageal varices and hepatic coma	10
VI	Diet in Special Conditions Risk Factors, Etiology, Symptoms, and Dietary management of following 1) Fever and Infection 2) Tuberculosis	10

	3) Cancer 4) HIV/AIDS 5) Burn and Trauma	
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FSN-304-MJP- Diet Therapy-Pr

Lectures-60

Credits-02

Practicals:

1. Planning & preparation of full fluid food preparation.
2. Planning & preparation of clear fluid food preparation.
3. Planning and preparation of diet for peptic ulcer
4. Planning and preparation of diets for cirrhosis of Liver
5. Planning and preparation of diets for acute renal failure.
6. Planning and preparation of diets for chronic renal failure.
7. Planning and preparation of diets for dialysis.
8. Planning and preparation of diets for cancer therapy
9. Planning and preparation of diets for Burn
10. Planning and preparation of diets for post operation

References:

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4. Williams,S.R.(1990)EssentialsofNutritionandDietTherapy,5thEdition,TimesMirror / Mosby College Publishing, St. Louis, Missouri, U.S.A.
5. Whitney,E.N.,Cataldo,B.C.,DeBruyne,L.K.,andRolfes,S.R.(1996)Nutritionfor Health and Health Care, 1st Edition, West publishing Company, St. Paul, U.S.A.
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9. Antia, F.P.(1989) Clinical Nutrition and Dietetics,3rdEdition,Oxford University Press, New Delhi, India.

FSN-305-MJ -Food Hygiene and Sanitation

Lectures-30

Credits-02

Course Outcomes:

1. Classify the common kinds of physical/chemical contamination and simple measures to prevent food poisoning.
2. Explain how high standards of personal hygiene for food handlers can be achieved.
3. Define integrates practices for economic control of pests
4. Design food hygiene and sanitation measures to control the spread of microorganism.
5. Criteria to fulfill water safety and environmental requirements

UNIT	CONTENT	LECTURES
I	Food hygiene Importance of food safety in the food processing industry, Risk classification, Microbial contamination (including cross-contamination/indirect contamination) Chemical contamination, Physical contamination, Allergen contamination Personal hygiene : General principle of food hygiene and food handling habits, Importance of worker hygiene, health status, illness and injuries, Personal cleanliness and behavior, visitors, hygiene verification, Hand washing	7
II	Cleaning and sanitation Importance of cleaning technology, general cleaning and sanitary considerations, sanitation principle and the requirements for a food sanitation program, Cleaning agents, Sanitizing agents, Equipment and systems, Evaluation of sanitation efficacy	8
III	Insect and pest control Importance of Pest Control in food industry, Pest Classification (insects, rodents and birds), Problems caused by pests, Prevention and effective control measures, Integrated pest management system and tools.	7

IV	Water supply and Infrastructure Sanitary aspects of building, Plant layout and design, Water in food industry, water sources, water uses, Water quality, Purification and disinfection of water, water treatments, water quality standards, Drinking water specifications	8
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FSN-306-MJP-Food Hygiene and Sanitation-Pr

Lectures-60

Credits-02

1. Market survey of cleaning and sanitizing agents
2. Hand washing technique
3. Visit to food catering unit to study hygiene and sanitary practices (2classes
4. Use of food sanitation checklist-food preparation and handling practices, personal practices, service.
5. Preparation of module and training of Group D staff in hygiene and sanitation Study of disinfectants
6. Bacteriological Analysis of Water.

References:

1. De Vries. (1997) Food Safety and Toxicity, CRC, NewYork.
2. Lawley, R., Curtis L. and Davis, J. (2004) The Food Safety Hazard Guidebook, RS Cpublishing.
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FSN-307-MJ- Nutrition for Health and Fitness

Lectures-30

Credits-02

Course Objectives:

1. Understand various aspects of health and fitness
2. Adopt a holistic approach towards health management and disease prevention.
3. Develop the ability to provide guidance on healthy diet, exercise & life style modifications for disease prevention and management.

UNIT	CONTENT	LECTURES
I	Introduction to Health and Fitness Definition of Health and fitness (WHO) Important terms – Exercise, Physical Activity Stamina, Endurance, Intensity, VO ₂ max, Duration, Flexibility, Muscle strength, Muscle endurance, Agility Healthy behaviors: Physical activity, Healthy Food Choices, Weight Control, Stress Management.	8
II	Different Aspects of Fitness Evaluation of fitness Wrong exercise practices and injuries Body Composition through the life span, its significance in fitness and body composition evaluation techniques. Stress: Its effect on health and its management through Relaxation and Meditation	8
III	Energy Systems Energy usage during anaerobic and aerobic exercises Energy usage in weight reduction and maintenance of body weight Nutrition, Exercise and Immunity Role of nutrients & exercises in the promotion of immunity Lifestyle modification for the following conditions: Reproductive health before Pregnancy Polycystic ovarian disease	8

	Bone health during Life Span. Chronic Degenerative diseases: Syndrome X	
IV	Performance Enhancement through the use of Nutritional Supplements: (General information, Uses and Disadvantages) 1. Ergogenic Aids 2. Protein Supplements Vitamin and Mineral Supplements Popularly used slimming techniques: 1. Mealreplacers 2. Fatburners 3. Appetite Suppressants 4. Fad Diets Spot reductions, Bariatric Surgery 6 Quackery in Diets and Exercises	8

FSN-308-MJP -Nutrition For Health And Fitness-Pr

Lectures-60

Credits-02

Practicals

- 1) Assignments of physical fitness
- 2) Strength assessment-Muscular Strength-
lifting weight, working with resistance bands climbing stairs, hill walking, cycling, push up sit-ups.
- 3) Cardio-vascular endurance assessment; squats, on treadmill work-out etc
- 4) Cardiorespiratory Endurance–
running and walking events, skipping on the treadmill workout etc
- 5) Strength assessment-Muscular Strength-
lifting weight, working with resistance bands climbing stairs, hill walking, cycling, push up sit-ups.
- 6) Cardio-vascular endurance assessment; squats, on treadmill work-out etc
- 7) Cardiorespiratory Endurance–
running and walking events, skipping on the treadmill workout etc
- 8) Agility–
coordination forward running, lateral running, side to side drills, jump box, shuttle run, medicine ball throw, zig-zag run etc.
- 9) Flexibility assessment–
yoga exercise aerobic exercise, gymnasium etc. Demonstration of Personal Exercise for Physical Fitness-yoga, pranayam, Relaxation techniques
- 10) Case Study-Observation and presentation of five case study to assess the impact of exercise on physical fitness
- 11) Planning and preparation of diet for physically active individuals
- 12) Visit to a Physical Fitness Center, sports club

References:

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2. Wardlaw(1993):Perspectives in Nutrition, PaulInsel Mosby.
3. BhatiaArti:Nutrition&Dietetics-AnmolPublicationPvt.Ltd.-NewDelhi.
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17. <http://www.who.int/mediacentre/factsheets/fs311/en/>
18. <http://www.guideline.gov/content.aspx?id=15597>
19. <http://www.who.int/features/factfiles/obesity/facts/en/index5.html>
20. Dr Leena Raje,Amruta Bahel ,Dietary management for Health and Fitness Smt P.N.Doshi Womens College Ghatkoper Mumbai.

HSC-321-VSC-Entrepreneurship Management

Lectures-30

Credits-02

Course Objectives:

1. Understand the concept of entrepreneurship
2. Acquire knowledge about the world of entrepreneurs
3. Understand and inculcate entrepreneurial values, attitudes, qualities and desires.
4. Inculcate the seed of entrepreneurship management in student mind.

UNIT	CONTENT	LECTURES
I	Entrepreneurship – Definition, Characteristics, factors affecting entrepreneur development, Entrepreneur Vs Manager, classification of entrepreneur, Role of entrepreneur in economic development Entrepreneurs in Shadows, failed entrepreneurship - New Internet Entrepreneurs	8
II	Entrepreneur and Management- Scope of Entrepreneurship, Entrepreneurial culture Entrepreneurial qualities Environment and Entrepreneurial Development	7

III	Women entrepreneurs – Definition, status in India, steps taken for the promotion of entrepreneurs, problems faced by women entrepreneurs Entrepreneurial environment in India Entrepreneurial Development Programmes (EDPs) Role Relevance and Achievement of EDPs in India Institutions for entrepreneurial development.	8
IV	Project Appraisal and Management- definition, types, steps, project appraisal, project report preparation, Search for business ideas, Project identification and formulation, SWAC Analysis.	7

References:

1. Bolton, B. & Thompson, J (2001): Entrepreneurs: Talent, Temperament, Technique, Replika Press Private Ltd, Delhi, 110 040, India.
2. Taneja, S. & Gupta, S.L. (1992) Entrepreneurship Development, New Venture Creation, Galgotia Publishing Company, New Delhi
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Appraisal and Financing (Vol II) and Programmes and Performance (Vol III), Himalaya Publishing House,

Bombay.

5. Winze, M.D. (1987). Women Entrepreneurs in India, Mital publications, New Delhi, .

6. Jayan, Entrepreneurship Development Jose Paul, N. Ajit Kumar, Entrepreneurship Development and

Management, Himalaya Publishing.

7. Khanka S. S. Chand and Co. Ram Nagar, New Delhi, Entrepreneurship Development

8. M. Gangadhara Rao, “Entrepreneurship and Entrepreneurial development, Kanishka Publishing House, New

Delhi – (1992).

9. Vasant Desai – Entrepreneurship Development, Himalaya Publishing House (1991)

9. Sami Uddin – Entrepreneurship Development in India, Mittal Publication, New Delhi

FSN-331-RP - Research Project

Lectures-60

Credits-02

Objectives:

1. Develop research skills.
2. Develop reviewing, report writing and presentation skills

Guidelines:

The department will assign suitable topics for project works in areas of

- 1) Market research, Community nutrition.
- 2) Food product development: Therapeutic foods, Specialty products
- 3) The students may work individually or in groups-Report writing, Report presentation, Skill Enhancement

HSC-341-MN-Theories of Human Development(Th)

Lectures-30

Credits-02

Course Objectives

1. To understand the need for theory in Human Development.
2. To understand the practical applications of a theory

UNIT	CONTENT	LECTURES
I	Early theories • Cock, Rousseau, Plato, Comenius Eastern Philosopher Swami Vivekananda, Tagore, Gandhi Ji	8
II	Freud's Psycho analysis theory • Freudian theory Heo Freudians, Karen Horney, Erich Fromm, Sullivan	7
III	Learning and Behavior theory • Hull, Guthric, Skinner, Thorn Dikes, J.B. Watson, Pavlov Watson, Karl's	8
IV	Cognitive developmental and Psycho analytic theory Piaget's theory, Lev Vygotsky , Jung	7

References:

1. Aries P. (1962) Centuries of Wild hood, New York Knopt
2. Crain (1992) Theories of development Concepts and applications, New Journey Prentice Hall.
3. Smith. J.A. Harre. R. and van Langenhove, L (1995) Rethinking Psychology London Sage.

SEMESTER -VI

FSN-351-MJ-Community Nutrition

Lectures-60

Credits-04

Course Objectives:

1. To understand the concept and Scope of community nutrition.
2. To know the assessment techniques applications for individuals and community.
3. To gain knowledge about the nutritional problems in the community:
4. Know about strategies and intervention programmes undertaken by the government, national and international voluntary agencies to combat nutritional problems

UNIT	CONTENT	LECTURES
I	Introduction to Community Nutrition Definition and general characteristics of community Knowledge, attitudes, practice and Food Habits Nutritional problems in India and factors contributing to Malnutrition vicarious and virtuous cycle of malnutrition Nutritional problems of women and men- Anemia, Vitamin A deficiency, B-complex deficiency, Lathyrism. Nutritional problems of infants and children- PEM-Marasmus and Kwashiorkor, Vitamin A deficiency, B-complex deficiency diseases, other problems- Goiter, fluorosis and anemia	10
II	Nutritional Assessment :- Introduction, Definition, objectives, sampling technique• methods of assessment Sampling Technique:- Introduction, Definition, objectives, identification Sampling techniques Methods of Nutritional Assessment Introduction, Definition, objectives, Direct assessment, Indirect assessment Direct assessment – introduction• ABCD method	15

	Anthropometric Method:- Introduction Definition , objectives• methods, advantages, disadvantages Biochemical Method:- Introduction, Definition •objectives, methods, advantages, disadvantages Clinical Method:- Introduction, Definition •objectives• methods, advantages, disadvantages Dietary Method:- Introduction, Definition, objectives, methods, advantages, Disadvantages	
III	Indirect assessment– Food balance sheet:- Introduction, Definition, objectives, methods, advantages, disadvantages Ecological parameters:- Introduction, Definition •objectives, methods, advantages, disadvantages Vital statistics:- Introduction, Definition, objectives , methods, advantages, disadvantages	10
IV	Nutrition intervention programmes – ICDS: Objectives and services, MDMP, Vitamin A prophylaxis. NIDDCP, NNACP, Role of National and international Organizations in combating malnutrition- Objective, services and beneficiaries of the following : ICMR, NIN, ICAR, WHO, FAO, UNICEF	15
V	Nutrition education Principles Objective of Nutrition education Methods of Nutrition education. Personal, Group and Mass Method merits and demerits of different methods of Nutrition education	10

FSN-352-MJP- Community Nutrition (Pr)

Lectures-60

Credits-02

Practicals:

1. Assessment of nutritional status

Preparation of schedule

a. Anthropometric measurements- weight, height and MUAC.

b. Plotting and interpretation of growth charts of children below 5 years

c. Identification of clinical signs of common nutritional disorders

d. Dietary assessment-24 hour recall

2. Development of suitable aids for nutrition education programs Like visual aids: Poster, Chart, Flash card, power point presentation

3. Planning and demonstration of low cost nutritious recipes for infants, preschoolers, pregnant/ lactating mothers.

4. Field Visit:

Observation of different nutritional problems faced by all the vulnerable section.

References:

1. Park J. E. (1983) Textbook of Preventive and Social Medicine. 9th Edition. Banarsidas Bhanot Publishers, Jabalpur, India.
2. Dhama O.P. and Bhatnagar O.P. (1980)
3. Education and Communication for Development. 1st Edition. Oxford University Press India, New Delhi, India.
4. Shukla P.K. (1982). Nutritional Problems of India. 1st Edition. Prentice Hall of India Pvt. Ltd., New Delhi.
5. Swaminathan M.S. (1985) Essentials of Food and Nutrition. Vol. II. 2nd Edition. Bangalore Printing and Publishing Company Limited, Bangalore, India.
6. Ghosh S. (1977) The Feeding and Care of Infants and Young Children. 1st Edition. Voluntary Health Association of India, New Delhi.

7. Rao V.K. (1982) Food, Nutrition and Poverty in India. 1st Edition. Vikas Publishing House Pvt Ltd, Noida, Uttar Pradesh, India.
8. Gopaldas T. Seshadri S. (Editors) (1987) Nutrition: Monitoring and Assessment. 1st Edition. Oxford University Press India, New Delhi, India.
9. Rajalakshmi R. (1987) Applied Nutrition. 1st Edition. Oxford/IBH Publishing Co, New Delhi, India
10. Diploma in Nutrition and Health Education, Set of Indira Gandhi National Open University (IGNOU) study material.
11. Wadhwa, A. and Sharma, S. (2003) Nutrition in the Community - A Text Book. Elite Publishing House Pvt. Ltd. New Delhi.

Advanced references:

1. Jelliffe D.B. (1996) The Assessment of the Nutritional Status of the Community, WHO Monograph, Geneva
2. Allgood, M.B. (1964) Demonstration Techniques. 2nd Edition. Prentice Hall of India Pvt Ltd, New Delhi, India
3. Obert, J.C. (1986) Community Nutrition. 2nd Edition. Prentice Hall Publications, New Jersey, U.S.A.
4. Shah C.H. (1983) Nutrition Gap. An Economic Analysis. 1st Edition. Himalaya Publishing House, Mumbai, India.
5. King F.S. and Burgess A. (1998) Nutrition for Developing Countries. 2nd Edition. Oxford University Press, USA
6. King F.S. and Burgess A. (1998) Nutrition for Developing Countries. 2nd Edition. Oxford University Press, USA. Vir S.C., (2015), Public health nutrition in developing countries (Part I and II), Wood head Publishing India Pvt, Ltd.
7. WHO and Chan, M., (2011) 'Hemoglobin concentrations for the diagnosis of Anemia and assessment of severity', Geneva, Switzerland: World Health Organization, Geneva pp. 1–6.
8. Cashman, K.D., Sheehy, T., & O'Neill, C.M. (2018). Is vitamin D deficiency a public health concern for low middle-income countries? A systematic literature

FSN-353-MJ-Institutional Food Service Management

Lectures-60

Credits-04

Course Objectives

1. To understand the application of basic principles to bulk production of the food
2. To gain knowledge regarding selection and purchase of food
3. To develop skills in menu planning for quality preparation
4. To understand the different styles of food service.
5. To gain knowledge of food service layout
6. To gain knowledge to develop skills in handling equipment and maintenance
- 7.

UNIT	CONTENT	LECTURES
I	Institutional Food Management Food service systems and their development Introduction to food service industry. Centralized decentralized delivery system Types, aims & objectives of different food services conventional, commissary, ready prepared and assemble & serve. Definition of food management principles of management – tools of management and functions of management Attribute and qualities of Manager	12
II	Food Management Menu Planning Definition, Planning menu Writing menu Types of menu Standardisation of Recipes and portion control	12

	1) Ala carte 2)Table D hote Menu 3)Combination Menu 4) Cyclic menu Construction of menu: Styles of food service	
III	Management of Space and Equipment Kitchen Space Size and Types of Kitchen, Designing of Kitchen Storage Space Types of Storage Service Space Structural designing Planning service area Catering Equipment Selection of Equipment Types of Equipment Care and maintenance of Equipment Methods of purchasing- open market buying, formal buying, wholesale buying, contract purchase, auction buying. Menu planning-Types of menus, factors affecting menu planning. Hygiene and sanitation: Environmental hygiene and sanitation, hygiene in food handling, personal hygiene, accidents and safety procedures, waste disposal 4 hrs Unit-3 14hrs Chapter No: 9 Costing in the Food Service Industry: Introduction to cost concepts and principles, Components of cost: material cost, employee cost,	12

	overhead cost. Understanding cost behaviour: fixed, semi-fixed, and variable	
IV	Food Material Management Food Purchasing Methods of purchasing Function of Purchasing Receiving Storage of Foods Types of Storage Organization of Storage	12
V	Financial Management Cost Concept Component of Cost Behavior of Cost Pricing of food Factors affecting Pricing Book Keeping Accounts-Personal account, Real account, Nominal Account	12
VI	I) Hygiene, Safety and Sanitation in Food service Establishment Hygiene in Food Handling Personnel Hygiene Garbage disposal, pest control Safety procedure in Food service Laws II) Personnel Management Recruitment, Selection, Induction, Training and Supervision III) Food Laws & Labor Laws	12

FSN-354-MJP-Institutional Food Service Management(Pr)

Lectures-60

Credits-02

Practicals

1. Visit to a commercial/non-commercial food service institution
2. Canteen-Plan and organize a food sale - Design the menu, resources and implement production and sale and evaluate profit
3. Survey on types of equipment used in food production and service.
4. Plan a menu for
 - a. Hospital food service for patients, (Waiter service)
 - b. Industrial canteen, (Table de hote Menu)
 - c. Five-star hotel, (A la Carte Menu)
 - d. College Hostel (A week's Cyclic Menu)
 - e. Fast Food Outlet (Self-service-Tray)
 - f. Preparation of market list, cost and selling price calculation of a given lunch
5. Serviette/ napkinfolding
6. Table setting

References:

1. Institutional Food Management(2018) Mohini Sethi ,Ne ageInternational Publication, New Delhi.
2. Food service system and LewisJ. Minor, Ronald. Cichy, Avi PublishingCo.
3. FoodServiceoperations:MahmoodA.Khan,AviPublishingCo1987
4. ConolA.King(1988).Professional Dining Room Management, VNR, New York.
5. John Fuller and Hutchinson,(1983).Modern Restaurant Services.
6. Dorothy Tompikins (1969).Table Layout and Decoration, Wardlock & co Ltd
7. Lillicarp,D.R,(1989).FoodandBeverageServices,2ndEd.BLBSReprinted.
8. Besbe, B., West, Le Velle, (1986) Revised by HArger V. Shugant M.S. June Payne Palacio, MacMillan Publishing Co. Mass Catering WHO Publishing.

9. Avery-A.A, (1980). Modern Guide to Food Service Equipment, C.B.I Publishing Inc. Anderson F, (1976). Home Appliances Servicing Taraporewala Sons & Co.
10. Johnston J.B, (1965). Equipment for Modern Linings, MacMillan Co.
11. Kotschevir, L and Terrll, M. E, (1971). Food Service Planning Layout and Equipment, John Wiley Eastern Ltd.
12. Mohini Sethi and Surjet Malhan, (1987). Catering Management, “An Integrated Approach. Wiley Eastern Ltd

FSN-355-MJ-Food Safety and Product Development

Lectures-30

Credits-02

Course Objectives:

1. Understand the market and develop new food product.
2. Formulate prepare and conducts help life studies of a new product.
3. Understand Food safety and Food Laws

UNIT	CONTENT	LECTURES
I	What Is Food Product Development The Need for developing new product Rising demand of convenience foods Rising demand of health foods Rising Demand Of Healthy Alternatives Of Convenience Foods Development To Product Recipe Standardization Definition How To Standardize Advantages Of Standardization Writing In Recipe Format Filling And Indexing Of Recipes	08
II	Market Survey The Need Of Market Survey Different Survey Methods And Techniques Market Demand And Need For A Particular Product Sensory Evaluation Significance Of Sensory Evaluation, Sensory Characteristics Of Foods Panels, Environment, Sample Preparation And Presentation For Sensory Evaluation Use Of Different Sensory Tests In Evaluation Of Foods Detection Of Basic Tests, Threshold Tests, Difference	08

	Tests, Preference Tests	
III	Introduction To Food Safety 10 Hrs 1. Definition, Types Of Hazards, Biological, Chemical, Physical Hazards 2. Factors Affecting Food Safety 3. Importance Of Safe Foods 10hrs Food Safety Management Tools 1. Basic Concept - Prerequisites- Ghps ,Gmps, 2. Haccp,Iso Series, Tqm - Concept And Need For Quality 3. Risk Analysis 4. Accreditation And Auditing	08
IV	Food Laws And Standards 10 Hr 1. Indian Food Regulatory Regime 2. Global Scenario 3. Other Laws And Standards Related To Food	06

FSN-356-MJP-Food Safety Product Development (Pr)

Lectures-60

Credits-02

Practicals

- 1) Identify a food product to be developed using Market surveys,
- 2) Standardization of the food product.
- 3) Sensory evaluation and shelf life study of the food product.
- 4) Nutrition labeling
- 5) Budget management/food costing
- 6) Food adulteration
- 7) Detection simple test for food adulterants
- 8) Study of food labeling and legal requirements.
- 9) Study of requirements of food product under BIS and Agmark.
- 10) Product Development and Shelf life studies.
- 11) Study of pack house and Export facility centers

References:

1. Fuller G.W.(1994)–New Product Development: From concept to marketplace, CRC Press, New York.
2. Craft, Eand SaguyI. S.(1991)–Food Product Development: From concept to market place, Van No strand Reinhold, New York.
3. Oickle, J.G.(1990)–New Product Development and Value Added. Food Development Division Agriculture, Canada.
4. FrazierW.andWestthoff.D.(1988):Foodmicrobiology,TataMcGraw-HillPublisher
5. SubbulakshmiG.andUdipiS.A.(2001):FoodProcessingandPreservation,Newage international (P) ltd. Publication
6. BanwartG.J.(1989):Basicfoodmicrobiology,chapmanandhallpublication,New York

Journals:-

- (1) International Journal of Food Science and Technology.
- (2) Food Technology

- (3) Journal of Food Technology.
- (4) Trends in Food Science and Technology

FSN-357-MJ- Food Analysis

Lectures-30

Credits-02

Course Objectives:

1. Explain the principles and applications of food analysis.
2. Perform basic chemical and physical analysis of food samples.
3. Operate common laboratory equipment safely.
4. Evaluate food quality using analytical parameters.

UNIT	CONTENT	LECTURES
I	Introduction to Food Analysis Definition and importance of food analysis Objectives of food analysis Sampling techniques and sample preparation Sources of errors in analysis Units of measurement and expression of results Laboratory safety and good laboratory practices (GLP)	06
II	Basic Analytical Methods Principles of qualitative and quantitative analysis Gravimetric methods and Volumetric methods Titration methods: Acid-base titration Redox titration Introduction to colorimetric analysis	08
III	Proximate Analysis of Foods Moisture determination Ash determination Crude protein estimation (principle of Kjeldahl method) Crude fat estimation (principle of Soxhlet extraction)	08

	Crude fibre determination Carbohydrate estimation by difference	
IV	Quality Analysis of Food Products pH and acidity measurement Total soluble solids (°Brix) Determination of peroxide value and acid value of oils Detection of food adulteration:Milk, Oils, Spices,Honey, Grain	08

FSN-358-MJP-Food Analysis(Pr)

Lectures-60

Credits-02

Practicals

1. Laboratory safety practices and handling of glassware
2. Study of laboratory instruments: pH meter, Spectrophotometer, Centrifuge, Hot air oven, Muffle furnace, Kjeldahl apparatus, Soxhlet apparatus, Refractometer
3. Preparation of reagents and standard solutions
4. Determination of moisture content by hot air oven method
5. Determination of ash content in food sample
6. Determination of pH of food samples
7. Determination of titratable acidity
8. Measurement of total soluble solids using refractometer
9. Determination of crude fat by Soxhlet method
10. Estimation of crude fibre
11. Determination of peroxide value in edible oil
12. Detection of common adulterants in milk, turmeric powder, chili powder, honey and grains

References:

1. S. Suzanne Nielsen – *Food Analysis*
2. S. Sadasivam and A. Manickam – *Biochemical Methods*
3. Raghuramulu, Nair and Kalyanasundaram – *Manual of Laboratory Techniques*
4. Y. Pomeranz – *Food Analysis: Theory and Practice*
5. Pearson – *Chemical Analysis of Food* (foodscience.knust.edu.gh)

HSC-371-VSC-Entrepreneurship Management –Pr

Lectures-60

Credits-02

Objectives:

1. To understand the nature of entrepreneurial activities.
2. To make aware about self-employment
3. To assess their Strength and weaknesses as entrepreneurs and identify how to strengthen their skills.

UNIT	CONTENT	LECTURES
I	Communication Skills: Written and verbal communication. Barriers to communication. Developing Listening skills. Personality Development: experts in the field to take sessions with students. Gaining Personal Focus: Defining one's own Intentions, goals and purpose.	15
II	Sources of Business Ideas Generation of startup ideas, Innovation vs Creativity Significance of writing the business plan/ project proposal; Contents of business plan/ project proposal/DPR (Detail Project Report) Project submission/presentation and appraisal thereof by external agencies, such as financial /non-financial institutions.	15

III	Regulatory Institutions and Schemes: Role of Regulatory Institutions; Micro, Small & Medium Enterprises, District Industries Centers Khadi and Village Industries Commission National Small Industries Corporation Small Industries Development Bank of India • Commercial banks and various Self Employment Oriented grant and schemes; The concept, role and functions of self-help groups, business incubators, angel investors, venture capital and private equity fund in startup ideas.	15
IV	Entrepreneurial Ideas Creativity and Idea Generation- Searching and selecting Entrepreneurial Ideas. Students to interact with particular business persons related to their identified project/ field of interest- Research select articles written about the industry related to their product or service. Organize Visits to Industries and Organizations helping entrepreneurship Management.	15

References:

1. Bolton, B. & Thompson, J (2001): Entrepreneurs: Talent, Temperament, Technique, Replika Press Private Ltd, Delhi, 110 040, India.
2. Taneja, S. & Gupta, S.L. (1992) Entrepreneurship Development, New Venture Creation, Galgotia Publishing Company, New Delhi
3. Hisrich, R.D. & Peters, M.P. (1995) Entrepreneurship: Starting, Developing and Managing a New Enterprise, Richard, D. USA, Irwin, INC
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5. Prescott, A and Proctor, B.B. (1987), Food Technology, Mc Graw Hill Book Co. , New York.

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8. Winze, M.D. (1987). Women Entrepreneurs in India, Mital publications, New Delhi, Jayan, Entrepreneurship Development Jose Paul, N. Ajit Kumar, Entrepreneurship Development and Management, Himalaya Publishing.
9. Khanka S. S. Chand and Co. Ram Nagar, New Delhi, Entrepreneurship Development M. Gangadhara Rao, “Entrepreneurship and Entrepreneurial development, Kanishka Publishing House, New Delhi – (1992).
10. Vasant Desai – Entrepreneurship Development, Himalaya Publishing House (1991)
Sami Uddin – Entrepreneurship Development in India, Mittal Publication, New Delhi

FSN-381-OJT- Internship

Lectures-120

Credits-04

Course Objectives:

1. Develop skills as per requirement of the agencies/institutions.
2. Develop abilities to perform the given tasks and confidence to deal with people effectively.
3. Acquire hands-on experience in working in thrust areas.

Guidelines: Duration: 8 weeks.

Areas of placements: Food and allied industries, Hospitals, health clubs, NGO's working in health related areas.

1. Nature of work :
 - a) Students should observe the centre for 2-3 days, then participate actively in the program.
 - b) Students should know the overall working of the Institution- Enrollment, Administration, Academic program etc.,
 - c) Detailed report of their participation should be written by the students and submitted to the college supervisor every week.
2. The college supervisor must visit the centre at least once a week and hold a discussion an hour per week. Persons in charge of the center should also be contacted at least once a week. Attendance, regularity and progress of the students should be checked and problems if any should be sorted out.
3. Evaluation by the person in charge of the centre should be considered. However their evaluation need not be final.
4. The college supervisor needs to keep a record of the attendance, regularity and punctuality of the students – with the approval of the person-in-charge.
5. Evaluation should be done on the basis of:
 - a) Attendance, regularity, punctuality of the students.
 - b) Planning the program
 - c) Criteria enumerated as per the requirement of the centre(can be modified according to the need of a particular centre)
 - d) Class presentation and journal submission.

TY B.Sc. TEXTILE AND CLOTHING

Semester -V

TC-301-MJ-Traditional Textile of India

Lectures-60

Credits-04

Course Objectives:

1. To study in-depth the traditional textiles of different regions of India
2. To understand techniques, motifs, and cultural significance
3. To document and preserve traditional textile knowledge

UNIT	CONTENT	LECTURES
I	Foundation and Historic Context Introduction & Importance: Significance of the handloom and handicraft sector, and the socio-economic status of weavers. Historical Evolution: Chronological development of spinning, weaving, and dyeing from the Indus Valley through the Mughal and British eras. Trade & Influence: The role of ancient trade routes in disseminating Indian textiles (muslins, chintz) and the resulting cultural exchange.	12
II	Woven and Dyed Textile Traditions Study of techniques, motifs, colors, and production centers of prominent weaves: <i>Banarasi Brocade, Kanjeevaram, Paithani, Baluchari, Chanderi, Maheshwari, Pochampally Ikat, Jamdani, Himroo, and Mashru</i> Dyed Textiles: Detailed analysis of tying and dyeing processes, featuring <i>Bandhani</i>(Gujarat/Rajasthan), <i>Lahariya, Patola</i> (double-ikat of Gujarat), <i>Ikat</i> (including Telia Rumal of Andhra Pradesh), and Odisha Ikat.	12
III	Painted and Printed Textiles Painted Textiles: Study of techniques, natural dyes, and narratives of <i>Kalamkari</i> (Srikalahasti & Machilipatnam),	12

	<i>Madhubani, Pattachitra, Pichwai, and Phad</i> paintings. Printed Textiles: Exploring the wooden block printing craft centers and styles including <i>Ajrakh, Bagh, Sangneri, Bagru</i> (Dabu print), and <i>Rogan</i> printing.	
IV	Regional Costume Traditional Costumes: Men's and women's traditional attire, including draping styles of <i>Sarees, Dhotis, Mekhla-Chadors</i>, and <i>Lehengas</i>. Study of specific costumes from North (Kashmir, Punjab), East (West Bengal, Assam), South (Tamil Nadu, Kerala), and West (Rajasthan, Maharashtra).	12
V	Contemporary Relevance Revival and preservation efforts Geographical Indications (GI) for traditional textiles Design interventions and contemporary adaptations Marketing and promotion of traditional textiles	12

References:

1. Bhatnagar, P. (2004). Traditional Indian Costumes and Textiles. Abhishek Publications.
2. Crill, R. (2015). Indian Textiles. Victoria & Albert Museum.
3. Lynton, L. (1995). The Sari. Thames & Hudson.

TC-302-MJP-Fashion Illustration (Pr)

Lectures-60

Credits-02

Course Objectives:

1. To develop basic drawing skills for fashion illustration
2. To understand fashion figure proportions and basic poses
3. To render fabrics and textures using various media

UNIT	CONTENT	LECTURES
I	Drawing Basics Drawing tools and materials: pencils, markers, watercolors, brushes Basic drawing skills: lines, shapes, shading techniques Understanding light and shadow Sketching from observation	12
II	Fashion Figure Proportions Understanding human anatomy for fashion Fashion croquis: 8-head and 10-head proportions Drawing fashion figures: front, side, and three-quarter views Basic poses: standing, walking, and seated	12
III	Garment Drawing Drawing garment details: necklines, collars, sleeves, skirts Rendering folds and drapes Drawing pleats, gathers, and ruffles Flats and technical drawings basics	12
IV	Fabric Rendering Rendering textures: cotton, silk, denim, leather, fur Rendering prints and patterns: stripes, plaids, florals Creating mood boards and design inspiration sheets Color application techniques	12

V	Basic Fashion Illustration Creating complete fashion figures with garments Use of different media: pencil, ink, watercolor, markers Developing a personal illustration style Portfolio development: basic presentation	12
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Practical Assignments:

1. 10 fashion croquis with varied poses
2. 5 garment detail drawings (necklines, sleeves, collars)
3. 5 fabric rendering samples
4. 5 complete fashion illustrations with color
5. Basic design collection (3 garments)

References:

1. Tain, L. (2017). Portfolio Presentation for Fashion Designers. Fairchild Books.
2. Kiper, A. (2014). Fashion Illustration: Inspiration and Technique. David & Charles.
3. Ireland, P.J. (2009). Fashion Design Illustration. Batsford.

TC-303-MJ-Pattern Making and Apparel Design

Lectures-60

Credits-04

Course Objectives:

1. To develop skills in drafting patterns for various garment components
2. To learn advanced garment construction techniques
3. To construct complete garments with professional finishing

UNIT	CONTENT	LECTURES
I	Introduction to Pattern Making Pattern Making Terminology Tools for Pattern Making Concept and scope of apparel design	08
II	Fundamentals of Pattern Making Definition & Importance – Role of pattern making in garment production. Methods of Pattern Making – Drafting (manual & computer-aided), draping, flat pattern technique, Commercial Patterns. Body Measurements – Landmarks, vertical/horizontal measurements, measuring techniques for men, women, and children; standard size charts (ISI, ASTM, ISO).	16
III	Development of Basic Blocks Garment Construction Techniques: Preparation of fabric for cutting (shrinking, straightening); grain line placement; economic and basic layout; layouts for special fabrics (bold prints, stripes, checks, nap/ pile fabrics) Handling Special Fabrics: Guidelines for cutting and stitching pile fabrics (velvet, corduroy), lace, sheers, heavy weight fabrics, knits, and leather	12

IV	Principles of Good Fit: Factors affecting good fit; ease allowance (wearing ease, design ease); grain line placement; balance of garment; fit evaluation on dress form Fitting Problems and Remedies: Common fitting problems in bodice (wrinkles, gaping, tightness), sleeves (inseam twist, restricted movement), skirts (hip drag lines, waist gaping), trousers (crotch problems); pattern corrections and alterations; fitting problems in upper and lower garments	12
V	Apparel Industry Overview Structure of Indian apparel industry; readymade garments sector; production flow from design to finished garment; roles in fashion industry (designer, pattern master, sample co-ordinator, merchandiser, quality controller)	12

TC-304-MJP -Pattern Making and Apparel Design

Lectures-60

Credits-02

Practicals

1. Sewing machine Introduction, Maintenance of sewing machine, thread and bobbin placement
2. Preparation of machine handling samples, Practice of sewing lines (straight, Square, Circle, Triangle, waves, etc)
3. Types of Seams, Placket, Pockets, Pleats, Gathers, Waistband, Openers(Hook, Button, Zipper, etc), Neckline and Armhole finishing, Drafting of basic bodice block
4. Basic Sleeve and Basic Skirt Block
5. Creating style lines: yokes, princess seams
 - Sleeve variations: puff, bell, raglan, kimono
 - Collar variations: Peter Pan, shirt, Mandarin, shawl
6. Skirt variations: Full Circular, Half circular, A-line, Panel skirt, Handkerchief skirt, Etc
7. Dart manipulation (pivot and slash methods)
8. Single dart, double dart, Symmetric and Asymmetric darts, Parallel dart, add fullness, cowl pattern, etc
9. Introduction of Torso

References:

1. Aldrich, W. (2015). Metric Pattern Cutting. Blackwell Science.
2. Armstrong, H.J. (2014). Patternmaking for Fashion Design. Pearson.
3. Zarapkar, K.R. (2015). Zarapkar System of Cutting. Navneet Publications.

TC-305-MJ Computer Aided Design

Lectures-30

Credits-02

Course Objectives:

1. To provide understanding of CAD systems, hardware, software, and their applications in the textile and apparel industry.
2. To acquaint students with various CAD software used for fashion illustration, textile design, and pattern development.
3. To develop conceptual understanding of digital pattern making, digitisation, grading, and marker making processes.

UNIT	CONTENT	LECTURES
I	Introduction to CAD and Computer Fundamentals Definition, meaning, and historical development of CAD; importance of CAD in textile and apparel industry; advantages and limitations of CAD over manual methods; role of computers in fashion industry Classification of computers, computer specifications; components of a computer system (CPU, input devices, output devices, storage devices); computer peripherals (scanner, digitizer, plotter, printer); various file formats	12
II	Introduction to Fashion Design software Overview of commonly used software—Corel DRAW, Adobe Illustrator, Adobe Photoshop; their applications in fashion design; Colour theory in digital design—RGB and CMYK colour modes,	12
III	Introduction to Textile Design Software Introduction to textile design software; computer applications in fabric design—weave design, dobby design, knit design;	12

IV	Digital Pattern Making, Digitisation and Grading Introduction to CAD pattern design software; comparison of manual and computerised pattern making; creating basic blocks Definition and importance of digitisation; digitising process Definition and necessity of grading; grading rules Marker Making in CAD	12
V	Artificial Intelligence in designing Use of Chat GPT, Google Gemini, Canva, etc. Preparation of cost sheet, technical sheet and its use.	12

TC-306-MJP-Computer Aided Design (Pr)

Lectures-60

Credits-02

Practicals

1. Prepare Motif, motif patterns and prints (10 designs)
2. Prepare advertisement, logo, pamphlet, book cover from using different software (each one)
3. Create Digital Illustration of Fashion figures of different poses with application of fabric prints over it (5 figure)
4. Change background and correction of image by using Adobe Photoshop Software (2images) Preparation of Digital Mood Board, Story Board according to theam

References:

1. Bina, A. (2012). Fashion Design Using Adobe Illustrator. Fashionary.
2. Tallon, K. (2020). Digital Fashion Illustration with Photoshop. Fashionary.
3. Stollar, M. (2018). Fashion Flats and Technical Drawing. Bloomsbury.

TC-307-MJ-Fashion Forecast and Range Development

Lectures-30

Credits-02

Course Objectives:

1. To develop a comprehensive understanding of fashion forecasting concepts, terminology, and processes.
2. To analyze various theories of fashion adoption and understand factors influencing fashion change.
3. To develop skills in sourcing and analyzing seasonal trends in colour, fabric, silhouette, and detailing.
4. To understand the principles and processes of range planning and collection development

UNIT	CONTENT	LECTURES
I	Introduction to Fashion Forecasting Definition, need, and importance of fashion forecasting in the apparel industry; short-term vs. long-term forecasting; difference between a trend and a fad; role of a fashion forecaster	12
II	Steps in Developing a Forecast Steps in forecasting: information gathering, analysis, interpretation, presentation, and evaluation; primary vs. secondary research methods; sources of fashion information (trade shows, fashion weeks, street style, blogs, social media influencers) Levels of forecasting: haute couture → ready-to-wear → mass market → budget; role of international forecasting agencies their reports, colour cards, and trend books	12
III	Colour forecasting process; colour psychology and consumer behaviour; importance of colour in fashion forecasting; colour cycles; development of colour palettes for seasons; Pantone colour standards and colour of the year	12

	Fabric forecasting, texture forecasting, Silhouette forecasting, print forecasting	
IV	Definition, need, and importance of range planning; difference between a line, a range, and a collection; factors influencing range development – pricing, fashion level, target market, seasonality, competition; role of buyer, merchandiser, designer in range planning	12
V	Concept development from trend research; theme selection and inspiration boards; colour, fabric, silhouette, and trim selection; design development and final selection; specification sheets and tech packs; sample development and fit trials; costing and pricing; range presentation to buyers	12

TC-308-MJP Fashion Forecast and Range Development (Pr)

Lectures-60

Credits-02

Practicals

1. Prepare report on Retail store visits for trend observation; consumer surveys and questionnaires
2. Formatting a trend research report; maintaining a trend journal/ scrapbook with sources, clippings, and swatches; creating a trend analysis summary; presentation of research findings
3. Brainstorming theme ideas – cultural, historical, art, nature, future, retro; developing a cohesive concept narrative; creating an inspiration board for the chosen theme; establishing brand positioning and target market alignment
4. Sourcing and cataloguing fabrics; creating a fabric library; selection of trims: buttons, zippers, laces, elastics, labels; building trim cards and sourcing sheets; calculating fabric consumption for each garment
5. Developing a tech pack for each garment: flat sketches, measurement charts, size specifications, construction notes, fabric details, trim details, labelling requirements; using a standard industry template, digital portfolio submission; preparing for a viva/presentation to buyers OR
6. Detailed case study of one international forecasting agency (WGSN) and one Indian forecasting agency (TrendVue or LFW trend report); analysing their forecast reports – methodology, presentation style, deliverables; preparing a written report with examples

References:

1. Brannon, E.L. (2010). Fashion Forecasting. Fairchild Books.
2. Hollander, A. (2018). Fashion Trend Forecasting. Laurence King Publishing.
3. Solomon, M.R. (2019). Consumer Behavior: Buying, Having, and Being. Pearson.
4. Seivewright, S. (2012). Basics Fashion Design: Research and Design. AVA Publishing.
5. Faerm, S. (2017). Fashion Design Course: Principles, Practice, and Techniques. Thames & Hudson.
6. Tain, L. (2017). Portfolio Presentation for Fashion Designers. Fairchild Books.

HSC-321-VSC-Entrepreneurship Management (Th)

Lectures-30

Credits-02

Course Objectives:

1. Understand the concept of entrepreneurship
2. Acquire knowledge about the world of entrepreneurs
3. Understand and inculcate entrepreneurial values, attitudes, qualities and desires.
4. Inculcate the seed of entrepreneurship management in student mind.

UNIT	CONTENT	LECTURES
I	Entrepreneurship – Definition, Characteristics, factors affecting entrepreneur development, Entrepreneur Vs Manager, classification of entrepreneur, Role of entrepreneur in economic development Entrepreneurs in Shadows, failed entrepreneurship - New Internet Entrepreneurs	8
II	Entrepreneur and Management- Scope of Entrepreneurship, Entrepreneurial culture Entrepreneurial qualities Environment and Entrepreneurial Development	7

III	Women entrepreneurs – Definition, status in India, steps taken for the promotion of entrepreneurs, problems faced by women entrepreneurs Entrepreneurial environment in India Entrepreneurial Development Programmes (EDPs) Role Relevance and Achievement of EDPs in India Institutions for entrepreneurial development.	8
IV	Project Appraisal and Management- definition, types, steps, project appraisal, project report preparation, Search for business ideas, Project identification and formulation, SWAC Analysis.	7

References:

1. Bolton, B. & Thompson, J (2001): Entrepreneurs: Talent, Temperament, Technique, Replika Press Private Ltd, Delhi, 110 040, India.
2. Taneja, S. & Gupta, S.L. (1992) Entrepreneurship Development, New Venture Creation, Galgotia Publishing Company, New Delhi
3. Hisrich, R.D. & Peters, M.P. (1995) Entrepreneurship: Starting, Developing and Managing a New Enterprise, Richard, D. USA, Irwin, INC
4. Desai, V. (1991, 97, 99, Vol I & II,) Entrepreneurial Development, Himalaya Publishing House. Mumbai.
- Prescott, A and Proctor, B.B. (1987), Food Technology, Mc Graw Hill Book Co. , New York.
3. Potter, N.W. and Hotchkiss, J.H (1996), Food science 5th edition, C.B.S. Publishers and Distributors, New Delhi.
4. Desai, N. (1996).Entrepreneurial development – Principles, Programmes, Policies (Vol I), Formulation

Appraisal and Financing (Vol II) and Programmes and Performance (Vol III), Himalaya Publishing House,

Bombay.

5. Winze, M.D. (1987). Women Entrepreneurs in India, Mital publications, New Delhi, .

6. Jayan, Entrepreneurship Development Jose Paul, N. Ajit Kumar, Entrepreneurship Development and

Management, Himalaya Publishing.

7. Khanka S. S. Chand and Co. Ram Nagar, New Delhi, Entrepreneurship Development

8. M. Gangadhara Rao, “Entrepreneurship and Entrepreneurial development, Kanishka Publishing House, New

Delhi – (1992).

9. Vasant Desai – Entrepreneurship Development, Himalaya Publishing House (1991)

9. Sami Uddin – Entrepreneurship Development in India, Mittal Publication, New Delhi

TC-331-RP – Research Project

Lectures-60

Credits-02

Objectives:

1. Develop research skills.
2. Develop reviewing, report writing and presentation skills

Guidelines:

The department will assign suitable topics for project works in areas of
Market research/Textile Design/Weaving/Dyeing and Printing/Surface ornamentation/
Eco Friendly Dyes/,Sustainable Textile/ product development/ Industrial Manufacturing
The students may work individually or in groups-Report writing and presentation Skill
Enhancement

HSC-342-MN- Women Studies

Lectures-30

Credits-02

Course Objectives:

1. To develop awareness regarding status of women in India.
2. To understand theoretical concerns related to women's studies

UNIT	CONTENT	LECTURES
I	The rationale for Women's Studies. Meaning and Significance. The Women's Movement in India	8
II	Development process for Women's Perspective	7
III	Programmes for Women's Perspective	8
IV	Problems and Issues related to Women in India. 1. Child Marriage 2. Female Mortality 3. Discrimination in nutrition and Health Care. 4. Socialization of Girl Child. 5. Dowry 6. Violence 7. Women's Identity 8. Educational Opportunity and Sex based Education. 9. Employment 10. Legal Status of Women	7

References:

1. Asthana '8' (1974) women's movement in India vikas, Delhi.
2. Antony M.J.(HSS) women's right: Dial Ogue, Delhi. M.A 3rd Semester Home Science (Human Development
4. and van Langenhove, L (1995) Rethinking Psychology London Sage.

SEMESTER-VI

TC-351-MJ-Textile Testing and Quality Control

Lectures-60

Credits-04

Course Objectives:

1. To understand quality concepts in textile and apparel industry
2. To learn testing methods for fibers, yarns, and fabrics
3. To develop skills in quality assessment and inspection

UNIT	CONTENT	LECTURES
I	Introduction to Quality Management Definition of quality: product, process, and service quality Quality standards: ISO, AATCC, ASTM, BIS Statistical quality control: basic concepts Total Quality Management (TQM) principles	12
II	Fiber and Yarn Testing Fiber properties: length, fineness, strength, maturity Yarn testing: count, twist, evenness, tensile strength Testing instruments: fiber fineness tester, Uster evenness tester Interpretation of test results	12
III	Fabric Testing Fabric physical properties: weight, thickness, thread count Strength tests: tensile, tear, and burst strength Dimensional stability: shrinkage testing Fabric handle and drape	12
IV	Garment Quality Assessment In-process quality control: cutting, sewing, finishing Garment inspection: AQL sampling plans Common defects: fabric defects, sewing defects Final inspection criteria	12

V	Color Fastness and Chemical Testing Color fastness tests: washing, light, rubbing, perspiration Eco-labeling: Oeko-Tex, GOTS Quality documentation and certification	12
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TC-352-MJP -Textile Testing and Quality Control

Lectures-60

Credits-02

Practicals

1. Identification of Fibers and length measurement(Cotton, Linen, Polyester, Nylon, Rayon, etc) Yarn count and twist determination and record analysis
2. Fabric weight and thread count measurement
3. Tensile strength testing of fabrics
4. Shrinkage testing
5. Garment defect analysis and AQL inspection
6. Color fastness testing to washing and rubbing

References:

1. Booth, J.E. (1996). Principles of Textile Testing. Newnes-Butterworths.
2. Saville, B.P. (1999). Physical Testing of Textiles. Woodhead Publishing.
3. Mehta, P.V. (2012). Managing Quality in the Apparel Industry. Abhishek Publications.

TC-353-MJ- Surface Embellishment

Lectures-60

Credits-04

Course Objectives:

1. To introduce the concept, importance, and history of surface embellishment for value addition to textiles.
2. To classify and describe various techniques of surface ornamentation, including hand and machine embroidery.
3. To impart knowledge of the origins, techniques, motifs, and colours of traditional Indian embroideries.

UNIT	CONTENT	LECTURES
I	Definition, importance, and scope of surface embellishment for value addition; historical overview of surface enrichment techniques and materials used in India and globally; terminology of surface ornamentation, principles of selecting appropriate materials for specific techniques	12
II	Fabric Manipulation Smocking: English, American, and Chinese/Gloucester smocking; honeycomb smocking techniques. Quilting: Hand, machine, and Italian quilting; stuffing and trapunto. Patchwork and	12
III	Appliqué: Mosaic, crazy, and strip patchwork; raw-edge, reverse, and layered appliqué; techniques in cutwork and lace making. Cording, Shirring, and Tucks: Pintucks, shell tucks, and pleats, ribbon embroidery	12
IV	Current market trends in surface embellishment; fusion of traditional and modern techniques; sustainable embellishment practices: use of natural dyes, upcycled and eco-friendly materials; zero-waste design principles; digital printing for embellishment; case studies of innovative products	12
V	Estimation of material and labour costs for embellished products;	12

	factors affecting cost, quality checkpoints for embellished goods; industry quality standards. Marketing strategies for embellished products: branding, pricing, packaging, and retail channels;	
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TC-354-MJP -Surface Embellishment

Lectures-60

Credits-02

Practicals

1. Prepare sample and article by using different techniques of smoking
2. Prepare sample and article by using different techniques of Quilting and applique work, Patchwork
3. Selecting one finished product (cushion cover, table runner, wall hanging, handbag, dupatta, kurti, etc.); selecting fabric, threads, and techniques; creating a specification sheet.
4. Prepare project on Current market trends in surface embellishment/ sustainable embellishment practices/case studies of innovative products by using surface embellishment
5. Presenting the portfolio and final product; explaining design choices and techniques used; answering questions on materials, methods, and troubleshooting

References:

1. Crill, R. (1999). *Indian Embroidery*. Prakash Books.
2. Naik, S. D. (1996). *Traditional Embroideries of India*. APH Publishing Corporation.
3. Reader's Digest. (1993). *Complete Guide to Sewing*. Pleasantville.
4. Paine, S. (1990). *Embroidered Textiles: A World Guide to Traditional Patterns*. Thames and Hudson.
5. Wolff, C. (1996). *The Art of Manipulating Fabric*. Krause Publications.

TC-355-MJ- Textile Design

Lectures-30

Credits-02

Course Objectives:

1. To develop awareness and appreciation of art & aesthetics in textiles.
2. To impart creative and technical skills for designing textiles with special emphasis on structural design.

UNIT	CONTENT	LECTURES
I	Elements of Weave Design : Construction of elementary weaves, development of weaves from elementary basis. Derivatives of plain, twill and satin weaves. Dobby and Jacquard shedding and weaving terrypile.	12
II	Introducing to knitting. Definition of knitting, basic structural terms and principles of knitting technology. Basic mechanical principles of knitting technology. Elements of knitted loop structure, four primary base structure (plain, rib, interlock, purl.) Weft and Warp Knitting – related terms and definition, warp and weft knitting machines.	12
III	Nonwoven textiles, fabric obtained by different manufacturing techniques.	12
IV	Design Analysis : Principles and elements of design, sources of inspiration for basic, sketching and painting, understanding the tools and equipment and their appropriate use for sketching. Painting and achieving textural effects.	12
V	Process of Designing :	12

	Motif development – Geometrical, simplified, naturalized, stylised, abstract and ornamental, big and small motifs, enlargement and reduction. Colour consideration – colour harmonies and colour ways.	
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TC-356-MJP-Textile Design-Pr

Lectures-60

Credits-02

Practicals

1. Prepare survey report on – Fabrics available in local market.
2. Creating motif designs and patterns for different placements and
3. Usages. geometric, stylized floral, abstract, figurative. Techniques – enlarging and reducing motifs, tracing, freehand drawing
4. Creating 4–6 design sheets (A3 size) showing motifs in different placements – border, all-over, centre, corner, placement for garment zones
5. Fabric Analysis – Design repeat, draft, peg plan and other details.
6. Weaving on simple loom – Plain, rib, matt, and twill weave.

References :

1. Prakash K. (1992), Expression Ethnic Indian Textile Designs, Deluxe
2. Packaging.
3. Prakash K. (1989), Impressions, Deluxe Packaging.
4. Prayag, R.S., Technology and Textile Printing Noyes Data Corporation.
5. Shenai, V.A. (1977), Technology of Textile Printing - Technology of
6. Textile Processing Vol.-IV, Sevak Publication.

TC-357-MJ -Retailing and Merchandising Management

Lectures-30

Credits-02

Course Objectives:

1. To develop hands-on skills in conducting retail store surveys and market research.
2. To create merchandise plans, assortments, and retail calendars for fashion products.
3. To design visual merchandising displays and promotional materials.
4. To develop competence in retail pricing, inventory analysis, and performance evaluation

UNIT	CONTENT	LECTURES
I	Introduction to Retailing Definition, meaning, and importance of retailing; functions of retailers in the distribution channel; evolution of retailing in India Classification of retailers: store retailing (department stores, specialty stores, supermarkets, convenience stores, off-price retailers, category killers, factory outlets); non-store retailing (e-commerce, direct selling, catalog, television home shopping); organized vs. unorganized retailing in India	12
II	Introduction to Merchandising Concept, definition, and importance of merchandising; difference between merchandising and marketing; merchandise categories: staple goods, fashion goods, seasonal goods Role, responsibilities, and key skills of a fashion merchandiser; visual merchandiser, functions of merchandising division: planning, controlling, execution; career opportunities in fashion retail and merchandising, six-month merchandising plan;	12
III	Brand Management Brand meaning and importance; brand building process; brand identity vs. brand image; brand positioning; brand equity; brand extensions; brand management strategies; private brands/labels vs. national brands	12

	Customer Relationship Management (CRM) CRM process; types of CRM (analytical, collaborative, operational); customer retention strategies; using CRM data for personalized marketing; omnichannel CRM	
IV	Digital and E-commerce Retailing E-commerce models: B2B, B2C, C2C; m-commerce and social commerce; fashion e-commerce landscape in India (Myntra, Ajio, Nykaa, Amazon Fashion); advantages and challenges of e-tailing; social media marketing in fashion retail	12
V	Retail Analytics and Performance Measurement Key performance indicators (KPIs) in retail: sales per square foot, average transaction value, conversion rate, footfall; financial KPIs: gross margin return on investment (GMROI), inventory turnover, sell-through; retail data analytics for decision making	12

TC-358-MJP- Retailing and Merchandising Management-Pr

Lectures-60

Credits-02

Practicals

1. Visit to an organized retail store (department store, specialty store, supermarket). Observation of store layout, visual merchandising, customer service, product placement, pricing, and branding. Documenting observations with photographs. Preparing a structured store visit report
2. Designing a theme-based window display for an apparel retail store. Preparing a miniature model or drawing with specifications of fixtures, mannequins, lighting, signage, and props. Display concept aligned with a seasonal theme or brand identity
3. Designing promotional materials for a retail brand: product catalogue, brochure/leaflet, shopping bag, visiting card, and print advertisement. Using manual or digital tools (Canva, Adobe Illustrator). Presentation of designed materials
4. Developing a floor plan for a retail store showing product placement, fixtures, signage, and customer flow. Creating planograms for wall displays and table displays. Applying visual merchandising principles (grid, racetrack, free-flow layouts)
5. Prepare theme based display in the college event/function etc

References:

1. Levy, M., & Weitz, B. A. *Retailing Management*. Tata McGraw-Hill Publishing Co. Ltd.
 2. Pradhan, S. *Retail Management: Text and Cases* (3rd ed.). Tata McGraw-Hill Publishing Co.
 3. Rosenau, J. A., & Wilson, D. L. (2006). *Apparel Merchandising: The Line Starts Here*. Fairchild Publications.
 4. Stephens Frings, G. (2008). *Fashion from Concept to Consumer*. Prentice Hall.
- Vedamani, G. G. *Retail Manageme*

HSC-371-VSC-Entrepreneurship Management –Pr

Lectures-60

Credits-02

Objectives:

1. To understand the nature of entrepreneurial activities.
2. To make aware about self-employment
3. To assess their Strength and weaknesses as entrepreneurs and identify how to strengthen their skills.

UNIT	CONTENT	LECTURES
I	Communication Skills: Written and verbal communication. Barriers to communication. Developing Listening skills. Personality Development: experts in the field to take sessions with students. Gaining Personal Focus: Defining one's own Intentions, goals and purpose.	15
II	Sources of Business Ideas Generation of startup ideas, Innovation vs Creativity Significance of writing the business plan/ project proposal; Contents of business plan/ project proposal/DPR (Detail Project Report) Project submission/presentation and appraisal thereof by external agencies, such as financial /non-financial institutions.	15

III	Regulatory Institutions and Schemes: Role of Regulatory Institutions; Micro, Small & Medium Enterprises, District Industries Centers Khadi and Village Industries Commission National Small Industries Corporation Small Industries Development Bank of India Commercial banks and various Self Employment Oriented grant and schemes; The concept, role and functions of self-help groups, business incubators, angel investors, venture capital and private equity fund in startup ideas.	15
IV	Entrepreneurial Ideas Creativity and Idea Generation- Searching and selecting Entrepreneurial Ideas. Students to interact with particular business persons related to their identified project/ field of interest- Research select articles written about the industry related to their product or service. Organize Visits to Industries and Organizations helping entrepreneurship Management.	15

References:

1. Bolton, B. & Thompson, J (2001): Entrepreneurs: Talent, Temperament, Technique, Replika Press Private Ltd, Delhi, 110 040, India.
2. Taneja, S. & Gupta, S.L. (1992) Entrepreneurship Development, New Venture Creation, Galgotia Publishing Company, New Delhi
3. Hisrich, R.D. & Peters, M.P. (1995) Entrepreneurship: Starting, Developing and Managing a New Enterprise, Richard, D. USA, Irwin, INC
4. Desai, V. (1991, 97, 99, Vol I & II,) Entrepreneurial Development, Himalaya Publishing House. Mumbai.
6. Prescott, A and Proctor, B.B. (1987), Food Technology, Mc Graw Hill Book Co. , New York.

6. Potter, N.W. and Hotchkiss, J.H (1996), Food science 5th edition, C.B.S. Publishers and Distributors, New Delhi.
7. Desai, N. (1996). Entrepreneurial development – Principles, Programmes, Policies (Vol I), Formulation Appraisal and Financing (Vol II) and Programmes and Performance (Vol III), Himalaya Publishing House, Bombay.
8. Winze, M.D. (1987). Women Entrepreneurs in India, Mital publications, New Delhi, Jayan, Entrepreneurship Development Jose Paul, N. Ajit Kumar, Entrepreneurship Development and Management, Himalaya Publishing.
9. Khanka S. S. Chand and Co. Ram Nagar, New Delhi, Entrepreneurship Development M. Gangadhara Rao, “Entrepreneurship and Entrepreneurial development, Kanishka Publishing House, New Delhi – (1992).
10. Vasant Desai – Entrepreneurship Development, Himalaya Publishing House (1991)
Sami Uddin – Entrepreneurship Development in India, Mittal Publication, New Delhi
nt. Jaico Publishing House.

TC-381-OJT – Internship

Lectures-120

Credits-04

Course Objectives:

1. Develop skills as per requirement of the agencies/institutions.
2. Develop abilities to perform the given tasks and confidence to deal with people effectively.
3. Acquire hands-on experience in working in thrust areas.

Guidelines: Duration: 8 weeks.

Areas of placements: Textile industries, Fashion Hub, Paithani Park , related areas of Textile and Clothing

6. Nature of work :

- a) Students should observe the centre for 2-3 days, then participate actively in the program.
 - b) Students should know the overall working of the Institution- Enrollment, Administration, Academic program etc.,
 - c) Detailed report of their participation should be written by the students and submitted to the college supervisor every week.
7. The college supervisor must visit the centre at least once a week and hold a discussion an hour per week. Persons in charge of the center should also be contacted at least once a week. Attendance, regularity and progress of the students should be checked and problems if any should be sorted out.
 8. Evaluation by the person in charge of the centre should be considered. However their evaluation need not be final.
 9. The college supervisor needs to keep a record of the attendance, regularity and punctuality of the students with the approval of the person-in-charge.
 10. Evaluation should be done on the basis of:
 - a) Attendance, regularity, punctuality of the students.
 - b) Planning the program
 - c) Criteria enumerated as per the requirement of the centre(can be modified according to the need of a particular centre)
 - d) Class presentation and journal submission.