

**Revised Course Curriculum and Syllabus
of
B.Sc.(Hons) Community Science**

As per Recommendations of V Deans
Committee ICAR, New Delhi


for

State Agricultural Universities of Maharashtra
From
Academic Year 2017-18





Vasant Rao Naik Marathwada Krishi Vidyapeeth, Parbhani



Degree and Discipline Coordinators

Degree Coordinator

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Acknowledgement

The College of Community Science, VNMKV Parbhani is the only one College in the four SAUs of Maharashtra. It was established on 15th May 1976. The staff and students are very much delighted about the historic decision taken by ICAR, Central and State Governments based on ICAR V Deans Committee Recommendations to change the nomenclature of Home Science as **Community Science** from the year 2017-2018 and its degree programme as **B.Sc (Hons) Community Science** with 3+1 programme having credit load of 180 to make it a professional degree. In this the students study only the core courses with lot of hands on training (HOT) practicals in the first 3 years and in the 4th year they do **Students Ready Programme** with Implant training, RAWE and Experiential Learning Programme with specialization themes which match to the changing trends in job market, also to help in creating more avenues for self-employment and for start-up India. I, Prof.Vishala Patnam, Associate Dean (Community Science) and Degree Coordinator would like to thank and express my sincere gratitude to all the higher authorities ICAR, to all the Hon.Vice-Chancellors SAUs, all the experts of ICAR V Deans Committee, DICC members, to the Members of Academic Council and Honourable members of Executive Council of VNMKV, Parbhani for giving approval to the noteworthy technical changes made in the Community Science (Home Science) education domain and also making it possible to implement it with full vigor from the academic year 2017-2018. I owe special thanks to DICC, Dr.B.R.Ulmek, Dean & DI and Chairman, MPKV Rahuri, Dr.A.S.Dhawan, Dean &DI, VNMKV, Parbhani, Dr.R.G.Burte, Dean & DI, Dr.BSKKV, Dapoli, Dr.V.M.Bhale, Dean &DI, Dr.PDKV, Akola, Dr.S.J. Kakade, Director of Education, MCAER, Pune, Dr.R.K.Rahane, Controller,MAUEB,Pune and all other members for their critical feedback, good suggestions and constant encouragement in completing the task of revising and finalizing syllabus of B.Sc (Hons) Community Science as per ICAR V Deans Committee recommendations.

I also appreciate and acknowledge the valuable contributions made by all the HODs, Course Coordinators, academic staff and students of the College of Community Science in accomplishing the task properly. I am sure the new degree programme will be very useful to students in fulfilling their educational and career dreams.



Prof. Vishala Patnam
Associate Dean
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DEPARTMENT WISE COURSE LAY OUT

BASIC COURSES

S.No.	Semester No	Course No.	Basic Supporting Courses	Credits		
				Theory	Practical	Total
1	I	LANG 111	Comprehension and Communication Skills in English	1	1	2
2	I	ESDM 111	Environmental Studies and Disaster Management	2	1	3
3	I	IRS 111	Introduction to Rural Sociology	2	-	2
4	II	LANG 122	Technical Writing (English)	1	1	2
5	II	AGRIL IN121	Agricultural Informatics	1	2	3
6	II	BIOCHEM 121	Principles of Biochemistry	2	1	3
7	III	FMICRO 231	Fundamentals of Food Microbiology	2	1	3
8	III	STAT 231	Elementary Statistics	2	1	3
9	IV	CSPD 241	Community Skills and Personality Development	2	1	3
10	V	EHP 351	Elementary Human Physiology	2	1	3
11	V	ECON 351	Economics and Marketing	2	1	3
			TOTAL	19	11	30
Non Gradual Courses						
1	I	NSS 111	National Service Scheme	--	2	2
2	II	EDNT121	Educational Tour I (M.S.)	--	1	1
3	IV	PHEY 241	Physical Education and Yoga	--	2	2
4	IV	EDNT 242	Educational Tour II (India)	--	1	1
			TOTAL	--	06	06

DEPT. OF HUMAN DEVELOPMENT AND STUDIES

S.No.	Semester	Course Number	Course Title	Credits		
				Theory	Practical	Total
1	I	HDS111	Fundamentals of Human Development	2	1	3
2	II	HDS122	Marriage and Family Dynamics	2	1	3
3	III	HDS233	Life-Span Development	2	2	4
4	IV	HDS244	Educational Psychology and Early Childhood Education	2	2	4
5	V	HDS355	Developmental Challenges in Children	2	1	3
6	VI	HDS366	Family Counselling and Child Welfare	2	1	3
7	VI	HDS 367	Education and Counselling for Parents & Community	--	3	3
			TOTAL	12	11	23
			STUDENT READY PROGRAMME			
8	VII	SRP 471	In-plant training	--	10	10
9	VII	SRP 472	RAWE	--	10	10
10	VIII	SRP 481	Experiential Learning Programme	--	20	20
			TOTAL	--	40	40

DEPARTMENT OF RESOURCE MANAGEMENT AND CONSUMER SCIENCE

S.No.	Semester	Course Number	Course Title	Credits		
				Theory	Practical	Total
1	I	RMCS 111	Fundamentals of Art and Design	1	2	3
2	II	RMCS 122	System Dynamics and Management of Resources	2	1	3
3	III	RMCS 233	Financial Management and Consumer Education	2	1	3
4	IV	RMCS 244	Housing and Space Management	2	1	3
5	IV	RMCS 245	Ergonomics and Appropriate Technologies	1	2	3
6	V	RMCS 356	Residential and Commercial Space Design	2	1	3
7	V	RMCS 357	Event Management	--	3	3
8	VI	RMCS 368	Entrepreneurship Development and Business Management	2	1	3
			TOTAL	12	12	24
STUDENT READY PROGRAMME						
9	VII	SRP 471	In-plant Training	--	10	10
10	VII	SRP 472	RAWE	--	10	10
11	VIII	SRP 481	Experiential Learning Programme	--	20	20
			TOTAL		40	40

DEPARTMENT OF FOOD SCIENCE AND NUTRITION

S.No.	Semester	Course No.	Title of the course	Credits		
				Theory	Practical	Total
1	I	FSN 111	Food Science and Processing	2	1	3
2	II	FSN 122	Principles of Human Nutrition	2	1	3
3	III	FSN 233	Food Standards and Quality Control	2	1	3
4	III	FSN 234	Food Preservation and Storage	--	2	2
5	IV	FSN 245	Normal Nutrition	1	1	2
6	V	FSN 356	Therapeutic Nutrition	2	1	3
7	VI	FSN 367	Food Analysis	1	2	3
8	VI	FSN 368	Community Nutrition and Education	2	1	3
			TOTAL	12	10	22
STUDENT READY PROGRAMME						
9	VII	SRP 471	In-plant Training	--	10	10
10	VII	SRP 472	RAWE	--	10	10
11	VIII	SRP 481	Experiential Learning Programme	--	20	20
			TOTAL	--	40	40

DEPARTMENT OF TEXTILES AND APPAREL DESIGNING

S.No.	Semester	Course No.	Course Title	Credits		
				Theory	Practical	Total
1	I	TAD 111	Fundamentals of Clothing Construction	1	2	3
2	II	TAD 122	Textile Science and Fabric Care	2	1	3
3	III	TAD 233	Garment and Accessory Designing	--	3	3
4	IV	TAD 244	Techniques of Fabric Construction	1	2	3
5	V	TAD 355	Textile Finishes	1	1	2
6	VI	TAD 366	Retailing and Merchandizing-Textiles and Apparel	2	--	2
7	VI	TAD 367	Traditional Textiles and Costumes of India	2	1	3
			TOTAL	9	10	19
STUDENT READY PROGRAMME						
8	VII	SRP 471	In-plant Training	--	10	10
9	VII	SRP 472	RAWE	--	10	10
10	VIII	SRP 481	Experiential Learning Programme	--	20	20
			TOTAL	--	40	40

DEPARTMENT OF COMMUNITY EXTENSION AND COMMUNICATION MANAGEMENT

S. No.	Semester	Course No.	Course Title	Credits		
				Theory	Practical	Total
1	I	CECM 111	Community Extension and Rural Development	1	1	2
2	II	CECM 122	Communication, Diffusion and adoption of Homestead Technologies	1	2	3
3	III	CECM 233	Programme Development for Rural Families	2	1	3
4	IV	CECM 244	Training and Human Resource Development	1	2	3
5	V	CECM 355	Project Management	1	2	3
6	VI	CECM 366	Women in Agriculture	1	1	2
			TOTAL	7	9	16

SEMESTER WISE COURSE LAY OUT

I Year I Semester

S.No.	Course No.	Course Title	Credits		
			Theory	Practical	Total
1	LANG 111	Comprehension and Communication Skills in English	1	1	2
2	CECM 111	Community Extension and Rural Development	1	1	2
3	IRS 111	Introduction to Rural Sociology	2	-	2
4	TAD 111	Fundamentals of Clothing Construction	1	2	3
5	FSN 111	Food Science and Processing	2	1	3
6	RMCS 111	Fundamentals of Art and Design	1	2	3
7	HDS 111	Fundamentals of Human Development	2	1	3
8	ESDM 111	Environmental Studies and Disaster Management	2	1	3
9	NSS 111	National Service Scheme	--	2	2 (NG)
TOTAL			12	9+2(NG)	21+2(NG)

I Year II Semester

S.No.	Course No.	Course Title	Credits		
			Theory	Practical	Total
1	LANG 122	Technical Writing (English)	1	1	2
2	CECM 122	Communication Diffusion and Adoption of Homestead Technologies	1	2	3
3	TAD 122	Textile Science and Fabric Care	2	1	3
4	FSN 122	Principles of Human Nutrition	2	1	3
5	RMCS 122	System Dynamics and Management of Resources	2	1	3
6	HDS 122	Marriage and Family Dynamics	2	1	3
7	BIO CHEM 121	Principles of Biochemistry	2	1	3
8	AGRI. IN 121	Agricultural Informatics	1	2	3
9	EDNT 121	Educational Tour I (M.S.)	--	1	1 (NG)
TOTAL			13	10+1(NG)	23+1(NG)

II Year III Semester

S.No.	Course No.	Course Title	Credits		
			Theory	Practical	Total
1	CECM 233	Programme Development for Rural Families	2	1	3
2	TAD 233	Garment and Accessory Designing	--	3	3
3	FSN 233	Food Standards and Quality Control	2	1	3
4	FSN 234	Food Preservation and Storage	--	2	2
5	RMCS 233	Financial Management and Consumer Education	2	1	3
6	HDS 233	Life – Span Development	2	2	4
7	STAT 231	Elementary Statistics	2	1	3
8	FMICRO 231	Fundamentals of Food Microbiology	2	1	3
		TOTAL	12	12	24

II Year IV Semester

S. No.	Course No.	Course Title	Credits		
			Theory	Practical	Total
1	RMCS 244	Housing and Space Management	2	1	3
2	TAD 244	Techniques of Fabric Construction	1	2	3
3	FSN 244	Normal Nutrition	1	1	2
4	CSPD 241	Communication Skills and Personality Development	2	1	3
5	HDS 244	Educational Psychology and Early Childhood Education	2	2	4
6	CECM 244	Training and Human Resource Development	1	2	3
7	RMCS 245	Ergonomics and Appropriate Technologies	1	2	3
8	PHEY 241	Physical Education and Yoga Practices	--	2	2(NG)
9	EDNT 242	Educational Tour II (India)	--	1	1 (NG)
		TOTAL	10	11+3(NG)	21+3(NG)

III Year V Semester

S.No.	Course No.	Course Title	Credits		
			Theory	Practical	Total
1	ECON 351	Economics and Marketing	2	1	3
2	TAD 355	Textiles Finishes	1	1	2
3	FSN 356	Therapeutic Nutrition	2	1	3
4	CECM 355	Project Management	1	2	3
5	HDS 355	Developmental Challenges in Children	2	1	3
6	EHP 351	Elementary Human Physiology	2	1	3
7	RMCS 356	Residential and Commercial Space Design	2	1	3
8	RMCS357	Event Management	--	3	3
		TOTAL	12	11	23

III Year VI Semester

S.No.	Course No.	Course Title	Credits		
			Theory	Practical	Total
1	TAD 366	Retailing and Merchandizing- Textiles and Apparel	2	--	2
2	TAD 367	Traditional Textiles and Costumes of India	2	1	3
3	FSN 367	Food Analysis	1	2	3
4	FSN 368	Community Nutrition and Education	2	1	3
5	RMCS 368	Entrepreneurship Development and Business Management	2	1	3
6	HDS 366	Family Counseling and Child Welfare	2	1	3
7	HDS 367	Education and Counselling for Parents & Community	--	3	3
8	CECM 366	Women in Agriculture	1	1	2
		TOTAL	12	10	22

IV Year VII Semester

S.No.	Course No.	Course Title	Credits		
			Theory	Practical	Total
1	SRP 471	In-plant Training	--	10	10
2	SRP 472	RAWE	--	10	10
		Total	--	20	20

IV Year VIII Semester Student READY Experiential Learning Programme

Module I Product Development and Entrepreneurship

S.No.	Course No.	Course Title	Credits		
			Theory	Practical	Total
1	SRP 481 RMCS/TAD	Experiential Learning Programme (RMCS/TAD)	--	20	20
		Total	--	20	20

Module II Community Nutrition and Welfare

S.No.	Course No.	Course Title	Credits		
			Theory	Practical	Total
1	SRP 481 HDS/FSN	Experiential Learning Programme (HDS/FSN)	--	20	20
		Total	--	20	20

Semester Wise Credit Load

Semester No.	Credits		Total
	Theory	Practical	
I	12	11	23
II	13	11	24
III	12	12	24
IV	10	14	24
V	12	11	23
VI	12	10	22
VII	-	20	20
VIII	-	20	20
		TOTAL	180

**DISCIPLINE WISE SYLLABUS & COURSE CURRICULUM
BASIC COURSES**

Course No. LANG 111 Title Comprehension and Communication Skills in English
Credits2(1+1) Semester I

Theory

The following Lessons from the textbook—*Current English for Colleges* (by N Krishnaswamy and T. Sriraman; Macmillan; 2007 Rs. 95/-)—are for the theory classes along with the Exercises at the end of each lesson. Education , Employment , Unemployment , Application , Planning, Curriculum Vitae , Interview , Reporting , General Knowledge , Stress Short Story , Environment , Computerecy , A Dilemma , Entertainment , War Minus Shooting ,You and Your English Usage and Abusage .

Practical

Vocabulary- Antonym, Synonym, Homophones, Homonyms; Functional grammar: Articles, Prepositions; Verb, Subject-Verb Agreement; Written Skills: Paragraph writing, Precis writing; The Style: Importance of professional writing; Preparation of Curriculum Vitae and Job applications; Interviews: kinds, Importance and process; Listening Comprehension: Listening to short talks lectures, speeches (scientific, commercial and general in nature). Oral Communication: Stress and Intonation, Conversation practice. Reading skills: reading dialogues, rapid reading, intensive reading, improving reading skills. Mock Interviews: testing initiative, team spirit, leadership, intellectual ability. Group Discussions.

Teaching Schedule-TheoryWith Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Education	5
2	Employment	5
3	Unemployment	5
4	Application	5
5	Planning	5
6	Curriculum Vitae	5
7	Interview	5
8	Reporting	5
9	General Knowledge	5
10	Stress	5
11	Short Story	10
12	Environment	10
13	Computeracy	5
14	A Dilemma	5
15	Entertainment , & War Minus Shooting	5
16	You and Your English Usage and Abusage	5
	Total	100

Practical Exercises

Exercise No.	Title
1.	Vocabulary: Antonym, Synonym, Homophones, Homonyms
2.	Vocabulary based on competitive exams
3.	Functional Grammar: Articles, Prepositions
4.	Verb, Subject—Verb Agreement
5.	Written Skills: Paragraph Writing, Precis' Writing
6.	The Style: Importance of Professional Writing
7.	Preparation of Curriculum Vitae and Job Applications
8.	Interviews: Kinds, Importance and Preparation
9.	Listening Comprehension Short Speeches, Talks, Lectures (Scientific, Commercial and General)
10.	Oral Communication: Stress and Intonation
11.	Oral Communication: Conversation Practices
12.	Oral Communication: Conversation Practices
13.	Improving Reading Skills: Rapid Reading, Intensive Reading,
14.	Mock Interviews: Testing Initiative, Team Spirit, Leadership and Intellectual Ability
15.	Group Discussions
16.	Group Discussions

Suggested Readings

1. Text Books

- 1) Balasubramanyam M. (1985). Business Communication. Vani Educational Books, New Delhi.
- 2) Krishnaswamy, N and Sriraman, T. (1995). Current English for Colleges. Macmillan India Ltd. Madras.

2. Reference Books

- 1) Carnegie, Dale. (2012). *How to Win Friends and Influence People in the Digital Age*. Simon & Schuster.
- 2) Covey Stephen R. (1989). *The Seven Habits of Highly Successful People*. Free Press.
- 3) Harold Wallace and Ann Masters. Personality Development. Cengage Publishers.
- 4) Mamatha Bhatnagar and Nitin Bhatnagar. (2011). Effective Communication and Soft Skills. Person Education.
- 5) Meenakshi Raman, Sangeeta Sharma. Technical Communication Principles and Practice
- 6) Mohan Krishna and Meera Banerjee. (1990). Developing Communication Skills. Macmillan India Ltd. New Delhi.
- 7) Naterop, Jean, B. and Rod Revell. (1997). Telephoning in English. Cambridge University Press, Cambridge.
- 8) Narayana swamy V R. (1979). Strengthen your writing. Orient Longman, New Delhi.
- 9) Sharma R C and Krishna Mohan. (1978). Business Correspondence. Tata Mc Graw Hill Publishing Company, New Delhi.
- 10) Spitz berg B, Barge K & Morreale, Sherwyn P. (2006). *Human Communication: Motivation, Knowledge & Skills*. Wadsworth.
- 11) Verma, KC. (2013). *The Art of Communication*. Kalpaz.

Course No. ENV 111
Credits 3(2+1)

Title Environmental Studies and Disaster Management
Semester I

Theory

Multidisciplinary nature of environmental studies- Definition, scope and importance. Natural resources- Renewable and non-renewable resources and their associated problems. Forest resources- Use and over-exploitation, deforestation, timber extraction, mining, dams and their effects on forest and tribal people. Water resources- Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems. Mineral resources- Use and exploitation, environmental effects of extracting and using mineral resources. Food resources- World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity. Energy resources- Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources. Land resources- Land as a resource, land degradation, man induced landslides, soil erosion and desertification. Role of an individual in conservation of natural resources, equitable use of resources for sustainable lifestyles.

Ecosystems- Concept, structure and function of an ecosystem. Producers, consumers and decomposers, energy flow in the ecosystem, ecological succession. Food chains, food webs and ecological pyramids. Introduction, types, characteristic features, structure and function of forest, grassland, desert and aquatic ecosystems. Biodiversity and its conservation- Introduction, definition, genetic, species, ecosystem diversity and biogeographical classification of India. Value of biodiversity- Consumptive use, productive use, social, ethical, aesthetic and option values. Biodiversity at global, national and local levels, India as a mega-diversity nation. Hot-spots of biodiversity. Threats to biodiversity- Habitat loss, poaching of wildlife, man-wildlife conflicts, endangered and endemic species of India. In-situ and Ex-situ conservation of biodiversity.

Environmental pollution- Definition, cause, effects and control measures of air, water, soil, marine, noise and thermal pollution and nuclear hazards. Solid waste management- Causes, effects and control measures of urban and industrial wastes. Role of an individual in prevention of pollution.

Social issues and the environment- Unsustainable to sustainable development, urban problems related to energy. Water conservation, rain water harvesting, watershed management. Environmental ethics- Issues and possible solutions, climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Environment protection acts- Air (Prevention and control of pollution) act, water (Prevention and control of pollution) act, wildlife protection act, forest conservation act, Issues involved in enforcement of environmental legislation, public awareness. Human population and the environment- Population growth, variation among nations, population explosion. Role of Information Technology in environment and human health.

Natural Disasters - Meaning and nature, types (floods, drought, cyclone, earthquakes, landslides, avalanches, volcanic eruptions, heat and cold waves, global warming, sea level rise, ozone depletion) and effects. Man-made disasters- Nuclear, chemical, and biological disasters, building fire, coal fire, forest fire, oil fire, road accidents, rail accidents, air accidents, sea accidents. Disaster management- International strategy for disaster reduction at national and global levels; National disaster management framework- Financial arrangements, role of NGOs, community-based organizations and media, central, state, district and local administration, armed forces in disaster response, police and other organizations. Feeding the people struck by the disaster, managing house and dress need during disaster.

Practical

Visit to a local area to document environmental assets, group discussions, Report writing. Study of simple eco systems, Preparing poster, chart on simple eco system , visit to a local polluted site- Urban/rural/industrial/agricultural. Short skit on simple eco systems / polluted site, Arranging environment awareness rally. Collecting herbarium, Utilization of resource for sustainable life style, preparing a project on remedies for pollution free environment

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	The Multidisciplinary nature of environmental studies –Definition, scope and importance	10
2 – 4	Natural resources –Renewable and non-renewable resources and their associated problems: forest, land, water, energy, food, minerals. Role of individual in conservation of natural resources.	12
5 – 8	Ecosystems-- Concept, structure and function of an ecosystem. Forest, grassland, desert and aquatic ecosystems Producers, consumers and decomposers, energy flow in the ecosystem, ecological succession. Food chains, food webs and ecological pyramids.	12
9 – 12	Biodiversity and its conservation-Introduction, definition, genetic, species, ecosystem diversity and bio geographical classification of India. Value of biodiversity. Biodiversity at global, national and local levels, India as a mega-diversity nation. Hot-spots of biodiversity. Threats to biodiversity- In-situ and Ex-situ conservation of biodiversity	15
13 – 18	Environmental pollution- Definition, cause, effects and control measures of air, water, soil, marine, noise and thermal pollution and nuclear hazards. Solid waste management- Causes, effects and control measures of urban and industrial wastes. Role of an individual in prevention of pollution.	15
19 – 24	Social issues and the environment - Unsustainable to sustainable development, urban problems related to energy. Water conservation, rain water harvesting, watershed management. Environmental ethics- Issues and possible solutions, climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Environment protection acts- Issues involved in enforcement of environmental legislation, public awareness.	12
25 – 28	Human population and the environment-Population growth, variation among nations, population explosion. Role of Information Technology in environment and human health. Environmental values.	12
29 – 30	Natural Disasters -Meaning and nature, types (floods, drought,	06

	cyclone, earthquakes, landslides, avalanches, volcanic eruptions, heat and cold waves, global warming, sea level rise, ozone depletion) and effects. Man-made disasters Nuclear, chemical, and biological disasters, building fire, coal fire, forest fire, oil fire, road accidents, rail accidents, air accidents, sea accidents.	
31-32	Disaster management- International strategy for disaster reduction at national and global levels; National disaster management framework- Financial arrangements, role of NGOs, community-based organizations and media, central, state, district and local administration, armed forces in disaster response, police and other organizations. Feeding the people struck by the disaster, managing house and dress need during disaster.	06
Total		100

Practical Exercises

Exercise No.	Title
1	Visit to a local area to document environmental assets
2	Group discussion
3	Report writing
4	Study of simple ecosystem
5	Preparing chart/poster on simple ecosystem
6	Visit to a local polluted site
7	Presenting report of the visit
8	A short skit on simple ecosystem/ polluted site
9	Preparing for environment awareness rally
10	Environment awareness rally
11	Writing report on awareness rally
12	Collecting Herbarium
13	Preparing Herbarium file
14	Creative activities - Utilization of resources for sustainable lifestyles
15	Creative activities – Preparing a project on remedies for pollution free environment
16	Presentation of report

Suggested Readings

1. Text Books

1. Bharucha, E. (2005). Text book of environmental studies. University Grants Commission, University Press, New Delhi.
2. Kapur, A. (2005). Disasters in India: Studies of grim reality. Rawat publication, Jaipur.

2. Reference Books

1. Chauhan, B.C. (2008). Environmental studies. University Science Press, New Delhi.
2. De, A.K. (2010). Environmental chemistry. Willey Eastern ltd. New Delhi.
3. Singh, S. and Singh, J. (2013). Disaster Management. Pravilika Publication Allahabad.

Course No. IRS 111

Credits 2(2+0)

Theory

Title Introduction to Rural Sociology

Semester I

Rural sociology- Meaning, scope and significance. Indian rural social stratification: Castes- Basic notions, changes and its role in economy and policy, difference between caste and class, backward classes and implementations of constitutional provisions. Indian rural institutions: Social-Family and marriage (Nature, forms and changes), Economic-political: Land relations and changes; rural poverty: its manifestations and causes. Socio-religious: Functional significance of beliefs, traditions and customs. Rural social changes - Processes and factors of transformation.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Rural sociology- Meaning	5
2 & 3	Scope and significance	10
4	Indian rural social stratification	2
5 & 6	Castes- Basic notions,	5
7, 8, 9	Changes and its role in economy and policy	5
10	Difference between caste and class,	5
11, 12	Backward Classes	4
13, 14	Implementations of constitutional provisions	4
15	Indian rural institutions	2
16,17,18	Family (Nature, forms and changes),	10
19, 20	Marriage (Nature, forms and changes),	5
21	Economic-political: institutions	2
22	Land relations and changes;	4
23, 24	Rural Poverty: its manifestations	10
25,	Rural Poverty: causes	5
26	Socio-religious institutions	2
27	Functional significance of beliefs,	4
28	traditions and customs	4
29, 30	Rural social changes - Processes	8
31, 32	Factors of transformation.	4
	Total	100

Suggested Readings

1.Text books

1. Chitambar, J.B. (1973). Introductory rural sociology. New York, John Wiley and Sons.
2. Desai, A.R. (1978). Rural sociology in India. Bombay, Popular Prakashan, 5th Rev. Ed.
3. Doshi, S.L. (2007). Rural sociology. Delhi Rawat Publishers.
4. Jayapalan, N. (2002). Rural sociology. New Delhi, Atlantic Publishers.
5. Sharma, K.L. (1997). Rural society in India. Delhi, Rawat Publishers.

2. Reference Books

1. Dahama, O.P. and Bhatnagar, O.P. (2003). Education and Communication for Development. Oxford and IBH Publishing Co. Pvt. Ltd.
2. Ray, G.L. (2004), Extension Communication and Management. New Delhi: Kalyani Publishers
3. Reddy, A.A (2001), Extension Education, Bapatla: Sri Lakshmi Press.

3. e- Books

[eBooks - Rural Sociology - Research & Course Guides at ...](http://clemson.libguides.com/https://books.google.co.in/books/about/Rural_Sociology_in_India)

http://clemson.libguides.com/https://books.google.co.in/books/about/Rural_Sociology_in_India

http://www.digitalbookindex.org/_search/search010sociologya.asp

[Emerald: Research in Rural Sociology and Development](http://www.emeraldgrouppublishing.com/products/books/series.htm?id=1057-1922)

<http://www.emeraldgrouppublishing.com/products/books/series.htm?id=1057-1922>

[Sociology: Urban and Rural Sociology..](http://press.uchicago.edu/ucp/books/subject/su56/su56_20.html)

http://press.uchicago.edu/ucp/books/subject/su56/su56_20.html

Course No. NSS 111

Title National Service Scheme

Credits 2(0+2)

Semester I

Practical

Introduction and basic components of NSS: Orientation: history, objectives, principles, symbol, badge; regular programmes under NSS, organizational structure of NSS. Code of conduct for NSS volunteers, points to be considered by NSS volunteers awareness about health. NSS programmes and activities Concept of regular activities, special camping, day camps, basis of adoption of village/slums, conducting survey. Analysing guiding financial patterns of scheme, youth programme/ schemes of GOI, Coordination with different agencies and maintenance of diary. Understanding youth Definition, profile, profile, categories, issues and challenges of youth. Opportunities for youth who is agent of the social change. Community mobilisation .Mapping of community stakeholders, designing the message as per problems and their culture. Identifying methods of mobilisation involving youth-adult partnership. Social harmony and national integration Indian history and culture. Role of youth in nation building, conflict resolution and peace-building. Volunteerism and shramdan Indian tradition of volunteerism, its need, importance, motivation and constraints. Shramdan as part of volunteerism. Citizenship, constitution and human rights .Basic features of constitution of India, fundamental rights and duties. Human rights, consumer awareness and rights and rights to information . Family and society Concept of family, community (PRIs and other community based organizations) and society.

Practical Exercises

Exercise No.	Title
1&2	Introduction and basic components of NSS: Orientation: history, objectives, principles, symbol, badge; regular programmes under NSS, organizational structure of NSS
3&4	Code of conduct for NSS volunteers, points to be considered by NSS volunteers awareness about health

5&6	NSS programmes and activities Concept of regular activities, special camping, day camps, basis of adoption of village/slums, conducting survey
7&8	Analysing guiding financial patterns of scheme, youth programme/ schemes of GOI
9&10	Coordination with different agencies and maintenance of diary
11&12	Understanding youth Definition, profile, profile, categories, issues and challenges of youth
13&14	Opportunities for youth who is agent of the social change
15&16	Community mobilisation Mapping of community stakeholders, designing the message as per problems and their culture
17&18	Identifying methods of mobilisation involving youth-adult partnership
19&20	Social harmony and national integration Indian history and culture.
21&22	Role of youth in nation building, conflict resolution and peace-building
23&24	Volunteerism and shramdan Indian tradition of volunteerism, its need, importance, motivation and constraints.
25&26	Shramdan as part of volunteerism
27&28	Citizenship, constitution and human rights Basic features of constitution of India, fundamental rights and duties
29&30	Human rights, consumer awareness and rights and rights to information
31&32	Family and society -Concept of family, community (PRIs and other community based organizations) and society

Course No. LANG 122

Credits 2(1+1)

Theory

Technical writing – writing process- sentence structure, types of sentences, sentence correction. Paragraph writing – definition, requirement for good paragraph. Report writing – format, various forms, technical & social correspondence, Business correspondence, parts of a letter, types of letter, complaints, requests, inquires, answers to inquiries. Scientific writing – format, source, selection of a topic, review of literature, tables, figures, footnotes, bibliography etc. Punctuation & capitalization, comma, Semicolon, colon, period.

Structural & functional English- note taking, synonyms, antonyms, acronyms Soft skills- verbal & non-verbal communication Speech sounds

Practical

Technical writing – writing process. Sentence structure, types of sentences, sentence correction. Paragraph writing – definition, requirement for good paragraph. Punctuation & capitalization, comma, Semicolon, colon, period. Report writing – format, various forms. Technical & social correspondence.

Business correspondence. Parts of a letter, types of letter. Complaints, requests. Inquiries, answers to inquiries, Scientific writing – format, source, selection of a topic, Review of literature, Tables, figures, footnotes, bibliography etc. Structural & functional English- note taking, synonyms, antonyms, acronyms, Speech sounds, Preparation and presentation of report

Teaching Schedule-Theory With Weightages (%)

Lecture No.	Topics	Weightage (%)
1	Technical writing - writing process steps-prewriting, drafting, revising, editing	5
2	Sentence structure, types of sentences based on function, sentence correction, subject, predicate, complements	5
3	Paragraph writing - definition, requirement for good paragraph, beginning of paragraph, supporting sentences, concluding paragraph, types of paragraph	5
4	Punctuation and capitalization, comma, semicolon, colon, period.	5
5	Report writing - format, various forms	5
6	Technical and social correspondence	5
7	Business correspondence- drafting rules	5
8	Parts of a letter, types of letter	5
9	Complaints, requests	5
10	Inquiries, answers to inquiries	5
11	Scientific writing - format, source, selection of a topic, choosing a topic, gathering of information, compiling & organizing information, preparation to write, writing a body	10
12	Review of literature	10
13	Tables, figures, footnotes, bibliography etc.	5
14	Structural & functional English- note taking, synonyms, antonyms, acronyms	10
15	Soft skills- verbal & non-verbal communication, fundamental skills for effective oral and written communication in English	10
16	Speech sounds	5
Total		100

Practical Exercises

Exercise No.	Title
1	Technical writing – writing process-
2	Sentence structure, types of sentences, sentence correction
3	Paragraph writing – definition, requirement for good paragraph
4	Punctuation & capitalization, comma, Semicolon, colon, period.

5	Report writing – format, various forms
6	Technical & social correspondence
7	Business correspondence
8	Parts of a letter, types of letter
9	Complaints, requests
10	Inquiries, answers to inquires
11	Scientific writing – format, source, selection of a topic,
12	Review of literature,
13	Tables, figures, footnotes, bibliography etc.
14	Structural & functional English- note taking, synonyms, antonyms, acronyms
15	Speech sounds
16	Preparation and presentation of report

Suggested Readings

1. Text Books

- 1 Jones, Daniel (1993) Everyman’s English pronouncing Dictionary, Universal book stall, New Delhi
- 2 Sharma S. D (1984) A textbook of spoken and written English Vikas, Delhi

Course No. AGRILIN 121

Title Agricultural Informatics

Credits 3 (1+2)

Semester II

Theory

Introduction to Computers, Definition: Hardware, Software & firmware. Types of software. Data Representation, Number systems (Binary, Hexadecimal). Difference between ASCII & UNICODE (Different Encoding Schemes) Primary , Secondary Memory , Units used for measurement of memory , Input Output devices. Operating Systems, definition and types File Management. Applications used for document creation & Editing, Data presentation using slides. Use of Spread sheets for statistical analysis, evaluating mathematical & logical expressions. Use of Spread sheets for Interpretation and graph creation. Database, concepts and types, uses of DBMS/RDBMS in health & nutrition. Database design, creation, Database, concepts and types, uses of DBMS/RDBMS in Agriculture Database design, creation, Preparation of presentation. Import export operations, using numerical tabular data/text/graph /slides within different applications using cut-paste. Introduction to web development technologies such as HTML5, CSS & responsive web design. Introduction to XML & its applications. Decision support systems, concepts, components and applications for Home Science.

Practical

Study of Computer Components, accessories. Practice of important DOS Commands. Introduction of different operating systems such as MS-Windows, Unix/ Linux, Creating, Files & Folders, File Management. Word-Processing – 1, Word Processing – (Formatting) (Table Operations, File & Import/Export 2 , Presentation Spreadsheet – (Introduction , File Menu) (Edit ,Insert Menu),

functions, Chart, DBMS/RDBMS- Concept, operations, Creating, Updating database, Querying/Retrieving data, relation, Introduction to World Wide Web (WWW). Demonstration information system related to Home Science fields. Introduction to HTML 5 tag, Preparation of web page using fundamental tags- font, effects, table, forms. Introduction to CSS, XML applications. Hands on Decision Support System,

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Introduction to Computers, Definition: Hardware, Software & firmware. Types of software.	3
2	Data Representation, Number systems (Binary, Hexadecimal). Difference between ASCII & UNICODE (Different Encoding Schemes)	2
3	Primary , Secondary Memory , Units used for measurement of memory , Input Output devices	7
4	Operating Systems, definition and types	3
5	File Management.	5
6	Applications used for document creation & Editing, Data presentation using slides.	5
7	Use of Spread sheets for statistical analysis, evaluating mathematical & logical expressions.	20
8	Use of Spread sheets for Interpretation and graph creation.	5
9	Database, concepts and types, uses of DBMS/RDBMS in health & nutrition.	3
10	Database design, creation,	7
11	Database, concepts and types, uses of DBMS/RDBMS in Agriculture	2
12	Database design, creation,	8
13	Preparation of presentation. Import export operations, using numerical tabular data/text/graph /slides within different applications using cut-paste.	10
14	Introduction to web development technologies such as HTML5, CSS & responsive web design.	7
15	Introduction to XML & its applications	3
16	Decision support systems, concepts, components and applications for Home Science.	10
	Total	100

Practical Exercises

Exercise No.	Title
1	Study of Computer Components, accessories
2	Practice of important DOS Commands (internal)
3	Practice of important DOS Commands (External)
4	Introduction of different operating systems such as MS-Windows, Unix/ Linux,

	Creating, Files & Folders, File Management.
5	Word-Processing – 1
6	Word Processing – 2 (Formatting)
7	Word Processing – 2 (Table Operations, File & Import/Export)
8	Presentation
9	Spread sheet - (Introduction , File Menu)
10	Spread sheet – (Edit ,Insert Menu)
11	Spread sheet – (Functions)
12	Spread sheet – (Functions)
13	Spread sheet – (Chart)
14	DBMS/RDBMS (Concepts , Operations)
15	Creating, Updating database
16	Creating, Updating database
17	Querying/Retrieving data
18	Querying/Retrieving data , reports
19	Querying/Retrieving data , relation
20	Querying/Retrieving data , relation , reports
21	Introduction to World Wide Web (WWW). Writing basic html page scripts.
22	Demonstration of information system related to home science field.
23	Introduction to HTML 5 tag
24	Introduction to HTML 5 tag
25	Preparation of Web page using fundamental tags.
26	Preparation of Web page using fundamental tags. (Font Effects)
27	Preparation of Web page using fundamental tags.(Table)
28	Preparation of Web page using fundamental tags.(Forms)
29	Introduction to CSS
30	Introduction to XML
31	XML applications
32	Hands on Decision Support System

Suggested Readings

1.Text Books

1. Sinha Pradeep K. and Sinha Priti Computer Fundamentals, III edition, BPB Publications, B-14, Connaught Place, New Delhi – 110 001.
2. Sinha P.K. Computer Fundamentals, BPB Publications, B-14] Connaught Place, New Delhi -110001.

2. Reference Books

1. Mastering Office Professional for window 95, BPB Publications, B-14, Connaught Place, New Delhi – 110001.

2. V.G. Panse and P.V. Sukhatma Statistical Methods for Agricultural workers, ICAR, New Delhi. 110001.

3. e-Books

1. http://www.tutorialsforopenoffice.org/category_index/base.html
2. <http://mkisan.gov.in/downloadmobileapps.aspx>
3. <http://www.nrsc.gov.in/Agriculture>
4. <http://iasri.res.in/>
5. <http://communicationtheory.org/berlos-smcr-model-of-communication>

Course No. BIOCHEM 121

Credits 3 (2+1)

Title Principles of Biochemistry

Semester II

Theory

Recapitulation of basic chemistry and biology Water, pH and buffers, Acid-base balance Cellular constituents, Structure and function : Amino acid and proteins Carbohydrates Lipids and bio membranes Nucleic acids Dissolved molecules – Vitamins and minerals Enzymes, function, properties, mechanism Metabolism of cellular constituents Basic concepts of Bioenergetics Carbohydrates metabolism Glycolysis and glycogenolysis HMP pathway TCA Cycle Electron transport chain Photosynthesis Gluconeogenesis Lipids metabolism beta-oxidation ketone bodies Fatty acid synthesis Amino acid metabolism General reactions of nitrogen assimilation and excretion Biosynthesis of DNA, RNA and Protein Replication Transcription Translation and genetic code Regulation of gene expression

Practical

Preparation of solutions-buffers and pH determination; Qualitative and quantitative tests of carbohydrates, amino acids. Estimation of reducing sugars by Nelson-Somogyi method. Determination of total protein by Micro –Kjeldahl method, Estimation of free amino acids by Ninhydrin method, estimation of total crude fat/ oil by Soxhlet method, determination of crude fibres from seeds of cereals/pulses , determination of starch by Anthrone method, estimation of potato oxidase from Potato, Paper chromatography/TLC demonstrations for separation of amino acids Determination of amylase activity, urease activity, analysis of proximate constituents in food.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Recapitulation of basic chemistry and biology	2
2	Water, pH and buffers, Acid-base balance	4
3	Cellular constituents: plant cell structure, cell organelles and their functions	2

4-5	Structure and function : Amino acid and proteins	6
6-7	Carbohydrates – Classification, Structure and function:	7
8-9	Lipids: Classification, Structure and function and bio membranes	5
10-11	Nucleic acids: Types, structure of DNA, difference between DNA and RNA and properties	5
12-13	Vitamins: Classification, Structure and biological functions and role of minerals	6
14-16	Enzymes: Definition, classification, properties, function, factor affecting enzyme activity and mechanism of action	8
17-18	Metabolism of cellular constituents Basic concepts of Bioenergetics	7
19-21	Carbohydrates metabolism Glycolysis and glycogenolysim HMP pathway TCA Cycle Gluconeogenesis Electron transport chain	11
22-23	Lipids metabolism Beta-oxidation Ketone bodies	5
24	Fatty acid synthesis	4
25-26	Photosynthesis: photosynthetic pigments, light and dark reaction of photosynthesis, C3 & C4 photosynthesis	6
27	Amino acid metabolism: reactions like deamination, transamination and decarboxylation. Biosynthesis of some amino acids	5
28	General reactions of nitrogen assimilation and excretion	5
29	Biosynthesis of DNA, RNA: Replication Transcription	5
30-31	Genetic code & Protein Translation and	5
32	Regulation of gene expression	2
Total		100

Practical Exercises

Exercise No.	Title
1	Preparation of solution, pH & buffers
2-3	Qualitative tests for carbohydrates and amino acids
4	Estimation of reducing sugars by Nelson-Somogyi method
5	Determination of total protein by Micro-Kjeldahl method
6	Estimation of free amino acid by Ninhydrin method
7	Estimation of total crude fat/oil by Soxhlet method
8	Determination of crude fiber from seeds of cereal/pulses.
9	Determination of starch by anthrone method
10	Estimation of potato oxidase from potato
11	Paper chromatography/ TLC demonstration for separation of amino acids
12	Determination of amylase activity
13	Determination of urease activity
14-15	Analysis of proximate constituent in food
16	Review and revision

Suggested Readings

1. Text Books

- 1 Bhatia S.C., (1984), Biochemistry in Agricultural Sciences, Shree Publication House, New Delhi.
- 2 Jain J.L. et al (2005), Fundamentals of Biochemistry, S. Chand & Company Ltd., New Delhi
- 3 Purohit S.S. (2009), Biochemistry – Fundamentals and Applications, Agro bios, Jodhpur
- 4 Rama Rao A.V.S.S., (2002) A Textbook of Biochemistry. Edition, 9, illustrated. Publisher, Sangam Books Limited, New Delhi
- 5 Rastogi S.C. (2003) – Biochemistry Tata Mc Graw-Hill Education, New Delhi.
- 6 Singh M. (2011), A Textbook of Biochemistry, Dominant Publishers & Distributors, New Delhi
- 7 Veer kumari L. (2007), Biochemistry. MIP Publisher, Chennai

2. Reference Books

- 1 Com EE & Stump PK. (2010). Outlines of Biochemistry. 5th Ed. John Wiley Publications.
- 2 Donald Voet and Judith G. Voet. (2011) Biochemistry, 4th Ed. John Wiley and Sons, Inc., NY, USA.
- 3 David L. Nelson and Michael M. Cox. (2012). Lehninger Principles of Biochemistry, 6th Ed. Macmillan learning, NY, USA
- 4 Goodwin, TW & Mercer EI. (1983). Introduction to Plant Biochemistry 2nd Ed. Oxford, New York. Pergaman Press.
- 5 Jeremy M. Berg, John L. Tymoczko, Lubert Stryer and Gregory J. Gatto, (2002). Biochemistry, 7th Ed. W.H. Freeman and Company, NY, USA
- 6 Jayaram. T. (1981). Laboratory manual in biochemistry, wiley Estern Ltd. New Delhi:
- 7 Plummer D. (1988). An introduction to Practical Biochemistry, 3rd ed. Tata McGraw Hill, New Delhi.
- 8 Practical biochemistry: R.L. Nath. A treatise on Analysis of Food, Fats and Oils: A.R. Sen, N.K. Pramanik and S.K. Roy
- 9 Sadasivam S, manickam A (1996) Biochemical methods. 2nd Edition, New Age International (p) Ltd. Publisher, New Delhi.

Course No. STUT 121

Credits 1 (0+1)

Title Study Tour I (M.S.)

Semester II

Educational tour is compulsory for students. This educational tour is to provide first hand experiences of educational and historical places associated/ related to the curriculum. The tour will be conducted in Maharashtra State.

Course No. FMICRO 231

Credits 3 (2+1)

Title Fundamentals of Food Microbiology

Semester III

Theory

Major groups of microorganisms associated with food Sources of microbial contamination in food factors effecting growth and survival of mo. in foods Physical methods to control microorganisms. Chemical methods to control microorganisms Food Fermentations Traditional fermented foods of India and other Asian countries Probiotics, prebiotics and symbiotic Fermented foods based on milk Fermented foods based on meat Fermented foods based on grains Fermented foods based on fruits and vegetables Fermented beverages Role of microorganisms and food spoilage ,organisms of milk Spoilage organisms of meat Spoilage organisms of grains Spoilage organisms of fruits and vegetables Principles of food preservation. Food poisoning and food borne infections Microbial toxins Indicator organisms Rapid methods for detection of microorganisms.

Practical

Microscopic examination of bacteria, yeast and molds Preparation of media. Methods of sterilization, Isolation of microorganisms. Purification of microorganisms Maintenance of microorganisms Detection of fecal coliform, MPN of coli forms Microbiological examination of milk Microbiological examination of grains Microbiological examination of fruit and vegetables

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1-2	Major groups of microorganisms associated with food sources of microbial contamination in food	7
3	Factors effecting growth and survival of mo. in foods	3
4-5	Physical methods to control microorganisms	7
6-7	Chemical methods to control microorganisms	7
8-9	Food Fermentations Traditional fermented foods of India and other Asian countries	7
10-11	Probiotics, prebiotics and symbiotic rich foods	7
12-13	Fermented foods based on milk and meat	7
14	Fermented foods based on cereal and legumes grains	3
15	Fermented foods based on fruits and vegetables	3
16	Fermented beverages	3
17-18	Role of microorganisms in food spoilage	7
19	Spoilage organisms of milk and their preservation	3
20	Spoilage organisms of meat and their preservation	3
21-22	Spoilage organisms of cereal and legumes grains and their preservation	7
23-24	Spoilage organisms of fruits and vegetables and their preservation	7
25-26	Principles of food preservation.	7
27-28	Food poisoning and food borne infections	7
29-30	Microbial toxins Indicator organisms	3
31-32	Rapid methods for detection of microorganisms.	3
Total		100

Practical Exercises

Exercise No.	Title
1	Microscopic examination of bacteria
2	Microscopic examination of yeast and moulds
3	Preparation of media.
4	Learning Methods of sterilization
5	Practising Methods of sterilization
6	Isolation of microorganisms.
7	Preparation of pure microbial culture
8	Learning Methods of Maintenance of microbial culture
9	Maintenance of microbial culture
10	Detection of faecal coliform
11	Detection of MPN of coli forms
12	Learning Methods of Microbiological examination of milk
13	Microbiological examination of milk
14	Learning Methods of Microbiological examination of grains
15	Microbiological examination of grains
16	Learning Methods of Microbiological examination of fruit and vegetables

Suggested Readings

1. Text books

1. Kapoor, T. and Yadav. (1991). An Introduction to Microbiology.
2. Pelczar, *et al.* (1996). Microbiology, 5th edn.
3. Stanier Ingraham and Wheels and Painter. (1992). General Microbiology. 5thed.

Course No. STAT 231

Credits 3 (2+1)

Title Elementary Statistics

Semester III

Theory

Definition of statistics and its applications in Home Science, limitations, types of data, classifications and frequency distribution and tabulation of data, qualitative and quantitative classification, discrete and continuous variables, frequency tables, grouped and ungrouped data. One and two dimensional diagrams with applications. Histogram, frequency curve, frequency polygon, frequency curve, cumulative frequency curve (ogive curve)

Basic concepts of logarithms, Arithmetic mean, median, mode, GM, HM, weighted average, percentiles and deciles, its merits and demerits. Relationship between AM, GM and HM, Characteristics of ideal measure (grouped and ungrouped data)

Range, mean deviation from A.M., quartile deviation, standard deviation and variance and respective relative measures (grouped and ungrouped Data). Moments, relationship between raw moments and central moments (grouped and ungrouped Data). Measures of skewness and kurtosis,

definitions of symmetrical distribution, relationship between mean, median and mode and between quartiles for symmetrical and skewed distributions.

Definition of random experiment, sample space, events, simple, mutually exclusive, equally likely events, complimentary and independent events, conditional probability, permutations and combinations, Random variable, Definition of probability (mathematical, statistical, axiomatic), and related terms, addition and multiplication theorem (without proof). Simple problems based on probability.

Bivariate data, scatter diagram, Definition of correlation, Karl Person coefficient of correlation, its properties and test of significance, Spearman's Rank correlation coefficient. Problems based on correlation, Definition of Regression, Simple linear regression of Y on X and X on Y and its properties, fitting and test of significance of regression coefficient, comparison and relation between correlation and regression coefficients. Problems based on regression.

Introduction to statistical inference, Tests of significance, basic definitions, hypothesis, testing of hypothesis null and alternative hypothesis, tests statistic, types of errors, degrees of freedom, level of significance, critical region, steps in testing of hypothesis, one sample and two sample t-test for equality mean and paired t- tests, Chi-square test of goodness of fit and independence of attributes.

Discrete and continuous probability distributions, definition of random variable, discrete and continuous random variables probability distribution of random variable, concepts of discrete and continuous probability distribution (probability mass and density function)

Basic concept of binomial theorem, binomial distribution, formula, properties and its applications, Poisson Distribution formula, properties and its applications, Normal distribution formula, Normal Curve properties, Standard normal distribution and its applications.

Introduction and definition of ANOVA, assumptions of ANOVA, assignable and non-assignable factors, analysis of one way classified data (CRD).

Definitions of population, sample, parameter, statistic, need of sampling, sampling versus complete enumeration introduction to simple random, stratified and multistage sampling methods. Simple random sampling with and without replacement. Use of random number tables for selection of simple random sample.

Practical

Graphical & Diagrammatic representation of data, one and two dimensional diagrams. Simple, multiple component and percentage bar diagrams, pie-diagram, histogram. Frequency polygon, frequency curve, ogives.

Computation of Arithmetic Mean, Median, mode, geometric mean, harmonic mean, quartiles, deciles and percentiles for Ungrouped data, Computation of Arithmetic Mean, Median, mode, geometric mean, harmonic mean, quartiles, deciles and percentiles for grouped data

Computation of various measures of dispersion Range, mean deviation from A.M., quartile deviation, standard deviation and variance and respective relative measures for Ungrouped data. Computation of various measures of dispersion Range, mean deviation from A.M., quartile deviation, standard deviation and variance and respective relative measures for Grouped data.

Computations of Measures of Skewness & Kurtosis (Grouped Data). Computations of Measures of Skewness & Kurtosis (Ungrouped Data).

Computations of Karl Pearson's coefficient of correlation with its test of significance and Spearman's rank correlation, Fitting of simple linear regression equation for prediction with test of significance of regression coefficient.

Problems on one sample, two Sample and paired t-test, Chi-Square test of Goodness of Fit. Chi-square test of independence of Attributes.

Analysis of Variance: Analysis of Variance one way classification (CRD).

Selection of random sample using simple random sampling.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1-2	Introduction: Definition of statistics and its applications in Home Science, limitations, types of data, classifications and frequency distribution and tabulation of data, qualitative and quantitative classification, discrete and continuous variables, frequency tables, grouped and ungrouped data.	4
3-4	Graphical presentation: One and two dimensional diagrams with applications. Histogram, frequency curve, frequency polygon, frequency curve, cumulative frequency curve (ogive curve)	6
5-6	Measures of central tendency: Basic concepts of logarithms, Arithmetic mean, median, mode, GM, HM, weighted average, percentiles and deciles, its merits and demerits. Relationship between AM, GM and HM, Characteristics of ideal measure (grouped and ungrouped data)	6
7-8	Measures of Dispersion: Range, mean deviation from A.M., quartile deviation, standard deviation and variance and respective relative measures (grouped and ungrouped Data).	6
9-10	Moments, relationship between raw moments and central moments (grouped and ungrouped Data).	4
11-12	Measures of skewness and kurtosis, definitions of symmetrical distribution, relationship between mean, median and mode and between quartiles for symmetrical and skewed distributions.	4
13-14	Probability: Definition of random experiment, sample space, events, simple, mutually exclusive, equally likely events, complimentary and independent events, conditional probability, permutations and combinations, Random variable, Definition of probability (mathematical, statistical, axiomatic), and related terms, addition and multiplication theorem (without proof). Simple problems based on probability.	5
15-16	Correlation: Bivariate data scatter diagram, Definition of correlation, Karl Person coefficient of correlation, its properties and test of significance, Spearman's Rank correlation coefficient. Problems based on correlation	8
17-18	Regression: Definition of Regression, Simple linear regression of Y on X and X on Y and its properties, fitting and test of significance of regression	10

	coefficient, comparison and relation between correlation and regression coefficients. Problems based on regression.	
19-20	Test of Significance: Introduction to statistical inference, Tests of significance, basic definitions, hypothesis, testing of hypothesis null and alternative hypothesis, tests statistic, types of errors, degrees of freedom, level of significance, critical region, steps in testing of hypothesis	5
21-22	't' test: one sample and two sample t-test for equality mean and paired t-tests	6
23-24	Chi-square test of goodness of fit and independence of attributes.	6
25-26	Probability distributions: Discrete and continuous probability distributions, definition of random variable, discrete and continuous random variables probability distribution of random variable, concepts of discrete and continuous probability distribution (probability mass and density function)	4
27	Basic concept of binomial theorem, binomial distribution, formula, properties and its applications	5
28	Poisson Distribution formula, properties and its applications	5
29	Normal distribution formula, Normal Curve properties, Standard normal distribution and its applications.	5
30	Analysis of variance–Introduction and definition of ANOVA, assumptions of ANOVA, assignable and non-assignable factors, analysis of one way classified data (CRD).	6
31-32	Sampling: Definitions of population, sample, parameter, statistic, need of sampling, sampling versus complete enumeration introduction to simple random, stratified and multistage sampling methods. Simple random sampling with and without replacement. Use of random number tables for selection of simple random sample.	5
	Total	100

Practical Exercises

Exercise No.	Title
1	Graphical presentation: Graphical & Diagrammatic representation of data, one and two dimensional diagrams. Simple, multiple components and percentage bar diagrams, pie-diagram, and histogram. Frequency polygon, frequency curve, gives.
2	Measures of central tendency: Computation of Arithmetic Mean, Median, mode, geometric mean, harmonic mean, quartiles, deciles and percentiles for Ungrouped data
3	Computation of Arithmetic Mean, Median, mode, geometric mean, harmonic mean, quartiles, deciles and percentiles for grouped data
4	Measures of Dispersion: Computation of various measures of dispersion Range,

	mean deviation from A.M., quartile deviation, standard deviation and variance and respective relative measures for Ungrouped data.
5	Computation of various measures of dispersion Range, mean deviation from A.M., quartile deviation, standard deviation and variance and respective relative measures for Grouped data.
6	Computations of Measures of Skewness & Kurtosis (Grouped Data).
7	Computations of Measures of Skewness & Kurtosis (Ungrouped Data).
8-9	Correlation: Computations of Karl Pearson's coefficient of correlation with its test of significance and Spearman's rank correlation
10-11	Regression: Fitting of simple linear regression equation for prediction with test of significance of regression coefficient.
12-13	Test of Significance: Problems on one sample, two Sample and paired t-test.
14	Chi-Square test of Goodness of Fit. Chi-square test of independence of Attributes.
15	Analysis of Variance: Analysis of Variance one way classification (CRD).
16	Sampling: Selection of random sample using simple random sampling.

Suggested Readings

1. Text Books

1. Nageshwar Rao G.(2007)Statistics for Agriculture Sciences New Delhi : BS Publications
2. Rangaswami R. (2009)A Text book of Agriculture Statistics New Age International (P) Limited, Hyderabad

2. Reference Books

1. Elhance, D.N. (1964) Fundamentals of Statistics Kitab Mahal, Wholesale Division,
2. Gupta, S.C and V.K. Kapoor (1971). Fundamentals of Mathematical Statistics Sultan Chand and Sons, New Delhi- 110 002
3. Hall and Knight (2013)Higher Algebra Arihant publication , New Delhi
4. Kapoor V.K. (2007). Fundamentals of Applied statistics by Sultan Chand and Sons, New Delhi- 110 002
5. Kapoor and Saxena. Mathematical Statistics Sultan Chand and Sons, New Delhi
6. Panse V.G. Sukhatme P.V. (1985) Statistical methods for Agricultural workers by Indian Council of Agricultural Research New Delhi.
7. Snedecor GW. & Cochran WG. (1989). Statistical Methods Iowa State University Press.

Course No. CSPD 241

Credits 3 (2+1)

Title Communication Skills and Personality Development

Semester IV

Theory

Communication Skills- Meaning and Process of Communication, Verbal and Nonverbal Communication, Public Speaking , Individual Presentation, Group Discussion, Seminars and Conferences, Impromptu Presentation. Writing Skills- Precise Writing, Summarizing, Abstracting, Listening and Note Taking, Field Diary and Lab Record, Indexing, Footnote and Bibliographic Procedures, Recent Advances in Communication- Role of ICT in Communication, Print and Electronic Media, Internet, e-mail, fax, mobile, Interactive, video and teleconferencing, e-governance, Personality Development- Meaning and definition of Personality, Factors effecting Personality, Personality Traits, Theoretical perspectives on personality – Behavioural trait & humanistic personality pattern, Moulding the personality patterns, Personality development – Self perception, self

concept, self esteem & gender stereotyping, Persistence and changes in personality determinants (physical, intellectual, emotional, social, educational & family), Aspiration, achievements & fulfilment, Dressing for formal & informal occasions.

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Practical

Listening and Note Taking, oral Presentation Skill, Individual and group Presentation, Impromptu Presentation, Writing Skill, Field Diary and Lab Record, Indexing, Footnote and Bibliographic Procedures, Precise Writing, Summarizing, Abstracting, Developing questionnaire to study impact of physique, educational institutions, aspirations on personality, Developing questionnaire to study social prescriptions, gender & family on personality, aspiration & presentation, Case study of an individual suffering with personality disorders.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
	Communication Skills	
1	Meaning and Process of Communication	2
2	Verbal and Nonverbal Communication	2
3, 4	Public Speaking, Impromptu Presentation	4
5, 6	Individual Presentation, Group Discussion, Seminars and Conferences	4
	Writing Skills	
7	Precise Writing, Summarizing, Abstracting	4
8, 9	Listening and Note Taking, Field Diary and Lab Record	4
10	Indexing, Footnote and Bibliographic Procedures	4
	Recent Advances in Communication	
11	Role of ICT in Communication	4
12, 13	Print and Electronic Media	4
14, 15	Internet, e-mail, fax, mobile	4
16, 17	Interactive, video and teleconferencing	4
18, 19	e-governance	4
	Personality Development	
20	Meaning and definition of Personality	2
21	Factors effecting Personality	2
22	Personality Traits	4
23, 24	Theoretical perspectives on personality – Behavioural trait & humanistic personality pattern	4
25, 26	Moulding the personality patterns.	4
27, 28, 29	Personality development – Self-perception, self-concept, self-esteem & gender stereotyping	6
30, 31, 32	Persistence and changes in personality determinants (physical, intellectual, emotional, social, educational & family)	6

33, 34	Aspiration, achievements & fulfilment.	4
35, 36	Dressing for formal & informal occasions.	4
	Total	100

Practical Exercises

Exercise No.	Title
1	Listening and Note Taking
2 & 3	Oral Presentation Skill
4 & 5	Individual and group Presentation
6	Impromptu Presentation
7&8	Writing Skill, Field Diary and Lab Record, Indexing, Footnote and Bibliographic Procedures
9	Precise Writing,
10	Summarizing, Abstracting
11&12	Developing questionnaire to study impact of physique, educational institutions,
13	Developing questionnaire to study impact of aspirations on personality
14	Developing questionnaire to study social prescriptions, gender & family on personality, aspiration & presentation
15 & 16	Case study of an individual suffering with personality disorders.

Suggested Readings

1.Text Books

- 1 Berk, E. L. (2013). Exploring life span development.3rdedn. McGraw Hill, New York.
- 2 Duane Schultz and Sydney Schultz (2009) Theories of Personality. Wadsworth Cengage Learning, US.
- 3 Helen Bee and Denise Boyd. (2004) The developing child. 10th edn. Pearson Education Pte. Ltd., Indian Branch, New Delhi, India
- 4 Richard Lerner Easter brooks M.A. and Jayanthi Mistry (2010) Handbook of Psychology. John Wiley & Sons. Inc.
- 5 Schultz D.P. and Schultz S.E. (2009) Theories of Personality .9th Edn. Wadsworth Cengage Learning, US.
- 6 William Damon (1983) Social and Personality Development- Infancy through Adolescence. W.W. Norton & Company, Inc. New York

2.Reference Books

- 1 Theodore Million , Seth Grossman, Carrie Millon, Sarah Meagher and Rowena Ramnath. (2009).Personality disorders in modern life. John Wiley & Sons.
- 2 Dale Carnegie (2008) Speak more effectively. Dale Carnegie & Associates, Inc.
- 3 Linda Brannon (2010) Gender: Psychological Perspective, 6th Edn. Pearson.
- 4 Arina Nikitina (2011) Successful public Speaking. Bookboon.com

Course No. PHY EDU 241

Title Physical Education and Yoga Practices

Credits 2(0+2)

Semester IV

Practical

Introduction to physical education- definition, objectives, scope, and importance; physical culture; Warming up - General Warming down - General , Meaning and importance of Physical Fitness and Wellness; Physical fitness components -speed, strength, endurance, power, flexibility, agility, coordination and balance; Methods of Training; aerobic and anaerobic exercises , weight training, circuit training , Interval training, Fartlek training , Effects of Exercise on Muscular, Respiratory, Circulatory & Digestive systems , Need and requirement of first aid. Surya namaskar , Skill of Volleyball, Rules & Regulation , Advance Skill of Volleyball, Specific Warming up , Meditation , Skill of Athletics, Short Distance running , throwing event.

Yoga; Introduction to - Asanas,(Practical NO.1&2) Ashtang Yoga Steps & meaning, (Yam,Niyam,Asan,Pranayam,Pratyahar, Dharana, Dhayhan Samadhi) Padmasan, Pavanmuktasan, pashchimottanasan, Dhanurasan, halasan, matsyasam, shalabhasan, bhujangasan, Matsyendrasan, Vakrasan, Uttanasan, Makavasan, Gomukhasan, Garudasan, Vrukshasan, Santulasan, Paadhastasan, Trikonasan, Vajrasan, Ushtrasan, Chakrasan, Sarvangasan, Shavasan.

Practical Exercises

Exercise No.	Title
1&2	Introduction to physical education- definition, objectives, scope, and importance; physical culture; Warming up - General Warming down - General
3&4	Meaning and importance of Physical Fitness and Wellness; Physical fitness components -speed, strength, endurance, power, flexibility, agility, coordination and balance;
5&6	Methods of Training; aerobic and anaerobic exercises;
7&8	weight training, circuit training,
9&10	Interval training, Fartlek training;
11&12	Effects of Exercise on Muscular, Respiratory, Circulatory & Digestive systems
13&14	Need and requirement of first aid.
15&16	Yoga; Introduction to - Asana,
17&18	Yoga Introduction to Asana
19&20	Yoga Introduction to Pranayama
21&22	Surya namaskar
23&24	Skill of Volleyball, Rules & Regulation
25&26	Advance Skill of Volleyball, Specific Warming up
27&28	Meditation
29&30	Skill of Athletics, Short Distance running
31&32	Skill of Athletics Throwing events

Suggested Readings

1.Text Books

- 1 Aneja O.P. Encyclopaedia of Physical education, sports and exercise science (4 volumes).
- 2 Chaudhery N V and Jain. R Encyclopedia of Yoga Health and Physical Education (7 Volumes).
- 3 Modak P, Sharma, and O P Jain. D Encyclopedias of Sports and Games with latest rules and regulations (8 volumes).
- 4 Sharma A. Encyclopaedia of Health and Physical Education (7 Volumes).

2.Reference Books

- 1 Deborah A. Wuest, and Charles A. Bucher Foundations of Physical Education, Exercise Science, and Sport
- 2 Edwin F Bryant. Yoga sutra of Patanjali.
- 3 Jain D (2011) Physical Education and Recreational Activities,
- 4 Jadhav K. G., Pagare S. B., and Singh S. K. (2011) Research Process In Physical Education And Sports
- 5 Karad P. L. (2011) Tests, Measurement and Evaluation in Physical Education
- 6 Singh S. K. (2011) Sports Training and Biomechanics in Physical Education
- 7 Sharma Anil (2011) Dimensions of Physical Education,
- 8 Vijaya Lakshmi (2005) Physical Fitness

Course No. STUT 242 **Title Study Tour II (India)**

Credits **1 (0+1)** **Semester IV**

Educational tour is compulsory for students. This educational tour is to provide first hand experiences of educational and historical places associated/ related to the curriculum. The tour will be conducted in any part of India.

Course No. EHP 351 **Title Elementary Human Physiology**

Credits **3(2+1)** **Semester V**

Theory

Physiological process, structural and functional basis of human body. Skeletal system, Muscular system and joints. Functions of brain and spinal cord. Nerve impulse reflex action and sense organs. Composition and functions of blood, lymph. Blood circulation, blood pressure, pulse and heart sounds, functions of heart. Respiratory apparatus, mechanism of respiration, respiratory rates, volume and transport of gases. Physiology of kidney and skin. Physiology of digestion, digestive enzymes and their functions. Functions of liver. The location, secretions and function of various endocrine glands. Male reproductive system and its functions. Female reproductive system and its functions. Pregnancy, periculation and milk secretion.

Practical

Skeletal system of mammal. Hematology- R.B.C. W.B.C. T.L.C D.L.C. Estimation of hemoglobin in blood. Heartbeat ,heart sound and pulmonary function test. Measurement of blood pressure. Respiratory quotient and lung function test. Measurement of O₂ and CO₂ at various partial pressure in lungs. Reproductive cycle-menstruation and estrous cycles, Fertility test.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1 & 2	Physiological process, structural and functional basis of human body	7
3 & 4	Skeletal system	6
5 & 6	Muscular system and joints	6
7,8 & 9	Functions of brain and spinal cord	6
10 &11	Nerve impulse reflex action and sense organs	6
12 & 13	Composition and functions of blood ,lymph	6
14 &15	Blood circulation, blood pressure, pulse and heart sounds, functions of heart	6
16,17 &18	Respiratory apparatus, mechanism of respiration, respiratory rates, volume and transport of gases	7
19,20 & 21	Physiology of kidney and skin	6
22, 23 & 24	Physiology of digestion, digestive enzymes and their functions	6
25	Functions of liver	6
26, 27 & 28	The location, secretions and function of various endocrine glands	7
29	Male reproductive system and its functions	7
30	Female reproductive system and its functions	7
31	Pregnancy,	6
32	Persecution and milk secretion	5
	Total	100

Practical Exercises

Exercise No.	Title
1	Skeletal system of mammal
2	Haematology- R.B.C
3	W.B.C.
4	T.L.C
5	D.L.C
6,7 & 8	Estimation of haemoglobin in blood

9	Heartbeat ,heart sound and pulmonary function test
10	Measurement of blood pressure
11	Respiratory quotient and lung function test
12&13	Measurement of O ₂ and CO ₂ at various partial pressure in lungs
14 & 15	Reproductive cycle-menstruation and oestrous cycles,
16	Fertility test

Suggested Readings

1.Text books

K.Sembulingam and Prema Sembulingam (2005) Essentials of Medical Physiology Third Edition
Published by Jaypee Brothers medical Publishers (P) Ltd, New Delhi

2. Reference Books

Anne Waugh Allison Grant (2014) Anatomy and Physiology in Health and Illness 12th Edition
Churchill Livingstone, 28th April 2014 Page Count: 522

Course No. ECOM 351

Title Economics and Marketing

Credits 3(2+1)

Semester V

Theory

Economic: Meaning – Definition, subject matter of Economics: Economic activities, (Wants, efforts, satisfaction), Basic Terms, Goods (Classification, types) utility – Meaning – forms of utility, value, wealth, and Consumption – Meaning, types of consumption, Engels law, factors affecting consumption, Consumption, demand and supply. Factors affecting production. Gross Domestic Product (GDP) – Role of Community Development Projects in National GDP. Market & Marketing – Definition, marketing process, need for marketing, role of marketing, marketing functions, classification of markets, marketing of various channels, price spread, marketing efficiency, integration, constraints in marketing, market intelligence, bank norms, insurance, SWOT analysis, crisis management. Techno-economic parameters for preparation of projects and basic guidelines for preparation of project report.

Practical

Techno-economic parameters for preparation of project. Preparation of bankable projects for various products and its value added products. Identification of marketing channel, calculation of price spread, identification of market structure and visit to different markets.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1 & 2	Economic: Meaning – Definition: Adam smith, Marshall, Robbins subject matter of Economics: Economic activities, (Wants, efforts, satisfaction),	8
3 & 4	Basic Terms, Goods (Classification, types) utility – Meaning – forms	8

	of utility, value, wealth, and	
5 & 6	Consumption – Meaning, types of consumption, Engels law, Standard of living, factors affecting consumption	6
7 & 8	Demand – Meaning definition, kinds of demand, demand schedule, demand curve, Law of demand, exception to law of Demand, Extension and Contraction, increase and decrease in demand.	6
9 & 10	Elasticity of demand – Meaning, types & methods of measurement of elasticity of demand (3 methods), factors affecting elasticity of demand	4
11 & 12	Supply – Definition, Kinds of supply, Supply schedule Law of Supply, Extension & Contraction of supply, Increase & decrease of supply, factors affecting supply.	6
13 & 14	Elasticity of supply – Meaning elastic, inelastic supply, measurement of elasticity of supply & its importance.	4
15	Production – Meaning factors of production: Land, Labour, Capital & Management	4
16 & 17	National Income – Concepts of National Income: GNP, NNP, PI Methods of measurement of National Income its Importance.	8
18 & 19	Role of Community Development Projects in the National Income.	4
20 & 21	Market – Meaning, Definition, marketing, meaning, definition, Role & scope of Marketing.	4
22 & 23, 24	Classification of Markets, Marketing functions and it's Classification.	10
25 & 26	Marketing channels – Meaning, and types of marketing channels, price spread – meaning, marketing efficiency, constraints in marketing.	8
27	Market intelligence – meaning and its importance	4
28	Project : Meaning, Definition, types of projects, project cycles	4
29 & 30	Basic guidelines for preparation of project proposals – Introduction, overview of project, project description, technical feasibility, commercial feasibility, cost estimates, finance (Requirement), financial feasibility, managerial aspects and project benefits. Bank norms, insurance – Definition, meaning its importance	8
31 & 32	SWOT – Analysis – related to Community Development projects, Crisis management – meaning, importance.	4
	Total	100

Practical Exercises

Exercise No.	Title
1&2	Techno-economic parameters for preparation of Community Development projects
3-5	Preparation of bankable proposal for Community Development Projects

	(Statements)
6&7	To study different – marketing channels.
8-10	To study price spread and producer’s share in consumer’s rupees, marketing cost & margin for different products.
11 & 12	To study the market structure
13 & 14	Visit to various markets in the area
15 & 16	Visit to different market institutions

Suggested Readings

1. Text Books

1. Acharya, S.S. and Agrawal, N.L. (2008), Agricultural marketing in India Oxford and IBN Publishing Company Pvt. Limited, New Delhi
2. K K Dewett and Varma, (2013) Elementary Economic Theory, S. Chand and Company Pvt. Limited Ramnagar, New Delhi

2. Reference Books

1. Barde S.D & Karmakar, K.G. (1995), Agricultural project management for banks Popular Prakashan Pvt. Limited Mumbai
2. Dewett, K K (2009) Modern Economic Theory, S. Chand Company Pvt. Limited Ramnagar, New Delhi.
3. Reddy S.S, Raghuram, P., Neel Kanta Shastri, (2016), Agricultural Economics Oxford and IBN Publishing Company Pvt. Limited. New Delhi.
4. Reddy S.S, Raghuram, P. (2015), Agriculture Finance and Management Oxford and IBN Publishing Company Pvt. Limited, New Delhi.

CORE COURSES

DEPARTMENT OF HUMAN DEVELOPMENT AND STUDIES

Course No. HDS 111	Title Fundamentals of Human Development
Credits 3 (2+1)	Semester I

Theory

Human development as a field of study. History of study of human development, scope and importance of study of human development from a life-span perspective. Latest issues in human development. Growth and Development, definition of growth and development, difference between growth and development, determinants of human growth and development; principles of human growth and development. Genetic basis and concepts associated with human life. Stages of human development, domains of human development and its importance. Theories of human development: Naturalism, Environmentalism, Maturational, Psycho-social, Ecological, Ethological, Cognitive, Social, Psychoanalytical, Language and Moral research involving humans. Definition of ethics and research, practical and ethical principles and concerns in research with human subjects, research designs and methods of data collection- their merits and demerits, variables, hypothesis, sampling, operational definitions.

Practical

Understanding about stages of human life span and domains of wholesome development; Assessment of domains of development; Latest issues in human development; Interviewing adolescents for studying their interests, A study on problems encountered by the senior citizens; Planning of research designs- objectives, methodology, variables etc, preparation of resource file.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	<ul style="list-style-type: none">• Orientation to the course contents• Significance of studying human development	2.5
2	History of study of human development	5.0
3	Importance of studying human development from a life span perspective	5.0
4	Latest issues in human development	5.0
5	Definition of growth and development, difference between growth and development, determinants of human growth and development	2.5
6	Principles of human growth and development	5.0
7	Genetic basis and concepts associated with human life	2.5
8	Stages of human development; domains of human development and its importance	5.0
9	Physical development and its aspects	2.5
10	Motor development : Gross & fine motor skills, Hand skills & leg skills	2.5
11	Speech & Language development: Essential tasks for learning to speak	2.5
12	Intellectual development : Development of brain and mental process	2.5
13	Social development: Process of socialization	2.5
14	Emotional development : Emotional developmental pattern	2.5
15 - 16	Moral development: Common disciplinary methods and its influences on children	2.5
17	Theory of human development : Naturalism	2.5
18	Theories of human development: John Watson, B.F. Skinner	5.0
19	Theory of maturation: Arnold Gesell	2.5
20	Ecological theory: Urie Bronfenbrenner	2.5
21	Ethological theory of attachment: John Bowlby	2.5
22	Cognitive development theory: Jean Piaget	2.5
23	Social learning theory :Albert Bandura	2.5
24	Psychoanalytical theory : Sigmund Freud	2.5
25	Psycho-social theory : Erik Erikson	2.5
26 - 27	Theory of language development: Lev Vygostsky, Noam Chomsky	2.5
28	Theory of moral development: Lawrence Kohlberg	2.5
29	Definition of ethics and research, practical and ethical principles and concerns in research with human subjects	5.0
30	Research designs and methods of data collection- their merits and demerits	5.0

31	Research Variables	5.0
32	Types of sampling in research	5.0
	Total	100

Practical Exercises

Exercise No.	Title
1	Understanding about stages of human life span.
2	Understanding about domains of human wholesome development.
3	Understanding about physical growth pattern of children and adolescents.
4	Assessment of motor developmental milestones of children.
5	Assessment of emotional maturity of adolescents (Emotional Maturity Scale of Singh and Bhargava).
6	Report writing on emotional maturity of adolescents.
7	Assessment of social maturity of children (Vineland Social Maturity Scale for Children).
8	Report writing on social maturity of children.
9	Educational video film on Gender discrimination and ill effects of female feticide .
10	Educational video film on Stimulatory home environment for infants and toddlers.
11	A study on latest issues in human development (Gender discrimination in child upbringing practices adopted by the families) .
12	Report writing on gender discrimination in child upbringing practices adopted by the families).
13	A case study of adolescents to know about their common interests.
14	Report writing on common interests of adolescents.
15	Planning of research designs- objectives, methodology, variables etc.
16	Completion of practical records and its submission.

Suggested Readings

1. Text books

1. Berk E.B. (2011) Child development. 8th ed . PHI Learning Private Ltd, New Delhi.
2. Berk, E. L. (2013). Exploring life span development. 3rded. McGraw Hill, New York.
3. David, M.T., [Garavan, L. and Dooley, M.](#) (2012). Fundamentals of human resource development. Sage Publications Ltd.
4. Santrock, J. (2012). Life span development. 14thed. McGraw Hill, New York.

2. Reference Books

1. Bronfenbrenner, V. (1979). The ecology of human development. Cambridge, Harvard
2. Garbarino, J. (1982). Children and families in the social environment. Aldine, New York.
3. Hall, Calvin S and Lindzey. G. (1978). Theories of personality. John Wiley and Sons.

4. Harris, J.R. and Liebert, R.M. (1987). The child. Prentice Hall, Inc.
5. James, M. and Nelson. (2009). Fundamentals of human development, religion, and
6. Munsinger, H. (1971). Fundamentals of child development. Holt, Reinhart and Winston, New York.
7. Papalia, D.E. and Olds, SW. (2008). Human development. 11thed. McGraw Hill,
8. Parke, R.D. (Ed). (1984). Review of child development research. Volume 7: The family. spirituality. Oxford Higher Education.Univ. Press. University of Chicago Press, Chicago.

3.e-Books

- 1 Douglas A.K. and Francis A.G.(2017) Leisure and Human Development. Sagamore Publishing LLC
.https:// [www.amazon.com/Leisure-Experience-Human Development/ 0813331498](http://www.amazon.com/Leisure-Experience-Human-Development/0813331498)
- 2 Mayuri K.and Khadi P.(2012) Life Span Development-I e-Home Science Courseware.
<http://ecourses.iasri.res.in/>
- 3 Saradadevi M and Prarthana P.(2012) Life Span Development-II e-Home Science Courseware. <http://ecourses.iasri.res.in/>

Course No. HDS 122

Title Marriage and Family Dynamics

Credits 3 (2+1)

Semester II

Theory

Introduction about marriage – definition; purposes, goals, functions; Readiness for marriage-definition; significance, areas, identifying characteristics of readiness for marriage; Mate selection: meaning; theories, criteria, mode/methods, mate selection in tribal India; factors responsible for wrong mate selection-; Engagement – concept, significance; marital roles and behaviours- definition, significance; marriage status and role transition- determinants of marital role behavior, Concept on gender roles, factors responsible in changes; Marital adjustment-definition, areas, influencing factors, types of marital relations and adjustments, marital adjustment over the family life cycle, obstacles, Improving marital adjustment, techniques; marital success and criteria; marital dissolution - definition, grounds for dissolution-causes for legal marital dissolution- Consequences of divorce, type of adjustments; factors for refraining from marriage failure; alternatives to marriage-singlehood, heterosexual cohabitation/ consensual union, homosexual union, reasons:. effects; Family-definition- functions- family structure and forms- changes in family structure; alternate forms of the Family. Causes-Effects; Family life cycle- definition, stages, developmental tasks ; Family Stress- definition, types, causes, effects, symptoms of stress ; Family Crises- definition ,causes- stages of a crisis- effects, management ; laws and acts; Counselling –definition, objectives, importance, areas, types- premarital counseling, marital and family process and effects ; Dynamics of population- definition, need of population education, causes consequences - remedial measures and devises of population control.

Practical

Views of youth towards marriage and readiness for successful marriage, Study of matrimonial advertisements published in popular daily news papers, Merits and demerits of love cum arranged marriages, Merits and demerits of types of family, Marital conflicts and causes: remedial measures adopted by the married couples, Laws and acts related to marriage and family, Celebration of national and international days, Feature films on dynamics of marriage & family, Role of mass media in

educating youth about facts for successful marital life, Effects of population explosion on individuals and nation, Role of women in building small families.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1 &2	Introduction about marriage – definition; purposes, goals, functions, forms of marriages and rituals and ceremonies.	5.0
3&4	Readiness for marriage- definition; significance, areas, identification, characteristics of readiness for marriage.	7.5
5 &6	Mate selection- meaning, theories, criteria, mode/methods, mate selection in tribal India, factors responsible for wrong mate selection.	5.0
7	Engagement – concept, significance.	2.5
8& 9	Marital roles and behaviours- definition, significance; marriage status and role transition, determinants of marital role behavior, concept on gender roles, factors responsible in changes.	7.5
10& 11	Marital adjustment-definition, areas, influencing factors, types of marital relations and adjustments.	7.5
12 &13	Marital adjustment over the family life cycle, obstacles, improving marital adjustment, techniques and criteria of marital success.	5.0
14 & 15	Marital dissolution - definition, grounds for dissolution-causes for legal marital dissolution, consequences of divorce, type of adjustments, factors responsible for refraining from divorce.	7.5
16	Alternatives to marriage- reasons and effects.	7.5
17, 18 &19	Family –definition, functions, family structure and forms, changes in family structure.	7.5
20 & 21	Alternate forms of the family, causes and effects.	5.0
22&23	Family life cycle- definition, stages and developmental tasks.	5.0
24&25	Family stress- definition, types, causes, effects and symptoms.	5.0
26& 27	Family crises- definition, causes, stages, effects and management.	5.0
28 & 29	Laws and Acts	5.0
30	Counselling – definition, objectives, importance, areas, types, process and effects.	5.0
31&32	Dynamics of population- definition, need, causes, consequences, remedial measures and population control devises.	7.5
	Total	100

Practical Exercises

Exercise No.	Title
1	Views of youth towards marriage and readiness for successful marriage – Personal interviews for data collection.
2	Views of youth towards marriage and readiness for successful marriage – Data pooling, tabulation and discussing results.
3	Study of matrimonial advertisements published in popular daily news papers
4	Merits and demerits of love cum arranged marriages - Group discussion and report writing
5	Merits and demerits of nuclear family - Group discussion and report writing
6	Merits and demerits of joint family- Group discussion and report writing
7	Marital conflicts, causes and remedial measures adopted by the married couples– Personal interviews for data collection
8	Marital conflicts, causes and remedial measures adopted by the married couples– Data pooling, tabulation and discussing results
9	Laws and acts related to various aspects of marriage, adoption and maintenance
10	Laws and acts related to violence against women and children
11	Celebration of national and international days
12	Feature films on dynamics of marriage & family- issues related to Reproductive system, female feticide, mate selection etc.- Group discussion and report writing
13	Feature films on dynamics of marriage & family- issues related to adoption, women exploitation etc. - Group discussion and report writing
14	Role of mass media in educating youth about facts for successful marital life- Group discussion and report writing
15	Effects of population explosion on individuals and nation- Group discussion and report writing
16	Role of women in building small families- Group discussion and report writing.

Suggested Readings

1. Text books

- 1 Kapadia. K.M. (1966). Marriage and family in India. 3rded. Oxford university press, Kolkata.
- 2 Rice F P (1990), Intimate relationships, marriages and families, Mayfield Publishing Company.
- 3 Stinnett Nick, Walters James and Kaye Evelyn(1998), Relationships in marriage and family, 2nd edition, Macmillan company, New York.

2. Reference Books

- 1 Adams B.N. (1980). The family: A sociological interpretation. 3rded. Rand McNally College Publishing Company, Chicago.
- 2 Ahuja, R. (2005). Indian social system. Rawat publication. New Delhi.
- 3 Benokraitis. V.N. (2014). Marriage and families. 8th ed. Pearson publication.
- 4 Goode, W.J. (1989). The family. New Delhi: Prentice Hall of India Private Limited.
- 5 Gordon Michael (ed). (1972). The nuclear family in crises. The search for an alternative. New York: Harper and Row Publishers.
- 6 Hate, C.A. (1969). Changing status of woman. Allied publishers, New Delhi.
- 7 Kenkel, W.F. (1973). The family in perspective. Meredith Corporation, New York.
- 8 Kumar, R. (2000). Violence against women. Anmol publication pvt ltd., New Delhi.
- 9 Murli Desai (1994), Family and intervention- A course compendium, Tata Institute of Social Sciences, Deonar, Mumbai.
- 10 Nye, I. (1973). The family: Its structure and interaction. MacMillan Publishing Company, New York.
- 11 Sing K (1984), Religion and Society, Prakashan Kendra, Railway crossing Road, Sitapur Road, Lucknow.

3. e-Books

- 1 Sarada Devi and Pushpa Khadi (2012), Family Counselling, e-Home Science Courseware, <http://ecourses.iasri.res.in/>.
- 2 Mayuri K and Ritu Singh (2012), Dynamics of Marriage and Family, e-Home Science Courseware, <http://ecourses.iasri.res.in/>.
- 3 Nick & Nancy Stinnett and Joe & Alice Beam (1999), Fantastic Families: Six Proven Steps to Building a Strong Family, <http://www.familydynamics.net/bookstore>.
- 4 Ron L. Deal, Smart Stepfamilies DVD Course (set of 1 DVD & 1 book), <http://www.familydynamics.net/bookstore>.

Course No. HDS 233

Credits 4 (2+2)

Title Life-Span Development

Semester III

Theory

Prenatal, perinatal and postnatal stages- Issues and scientific concepts associated with conception, pregnancy, prenatal development, labour/ birth process, birth complications, postnatal life- neonatal care, Physical development/characteristics in infancy, early childhood, middle childhood, adolescence and in adulthood-its antecedent influences; Motor development in infancy, early childhood and in middle childhood- its antecedent influences; Cognitive development in infancy, early childhood, middle childhood and in adolescence- its antecedent influences; Speech & Language development in infancy, early childhood and in middle childhood- its antecedent influences ; Social development in infancy, early childhood, middle childhood and in adolescence- its antecedent influences; Emotional development in infancy, early childhood, middle childhood and in adolescence- its antecedent influences; Stimulating approaches for optimizing development. Developmental tasks

during the life span, Adulthood- Important changes and coping up strategies, Recent issues in growth and development –Life span approach.

Practical

Observational visits to well-baby clinic/ Civil hospital- Maternity wards, NICU; Observation of full term and preterm babies; Rating of developmental tasks of infants, preschoolers, school going children, adolescents, adults and elderly persons; Assessment of growth of children ; Assessment of home environment of family; Assessment of mental and motor development of infants ; Assessment of IQ of children; Educational video films related to the course; preparation of resource files.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	<ul style="list-style-type: none"> • Orientation to the course contents • Prenatal, perinatal and postnatal stages of human life span 	2.5
2	Issues and scientific concepts associated with conception, pregnancy, prenatal development	5.0
3	Birth process and birth complications	5.0
4	Postnatal life- Neonatal care	5.0
5	Physical development in infancy and in early childhood -its antecedent influences	5.0
6	Physical development in middle childhood - its antecedent influences	5.0
7	Physical development in adolescence -its antecedent influences	5.0
8	Motor development in infancy and in early childhood -its antecedent influences	5.0
9	Motor development in middle childhood - its antecedent influences	2.5
10	Cognitive development in infancy -its antecedent influences	2.5
11	Cognitive development in early childhood and in middle childhood -its antecedent influences	2.5
12	Cognitive development in adolescence- its antecedent influences	2.5
13	Speech & Language development in infancy -its antecedent influences	2.5
14	Speech & Language development in early childhood - its antecedent influences	2.5
15	Speech & Language development in middle childhood- its antecedent influences	2.5
16 -17	Social development in infancy, and in early childhood, -its antecedent influences	2.5
18	Social development in middle childhood - its antecedent influences	5.0
19	Social development in adolescence- its antecedent influences	2.5
20 - 21	Emotional development in infancy, and in early childhood -its antecedent influences	2.5
22	Emotional development in middle childhood -its antecedent influences	2.5
23	Emotional development in adolescence- its antecedent influences	2.5
24	Stimulating approaches for optimizing development	2.5
25	Developmental tasks during infancy, early childhood and middle childhood	2.5

26	Developmental tasks during adolescence	2.5
27	Developmental tasks during adulthood	2.5
28	Adulthood-Important changes and coping up strategies in early adulthood	2.5
29	Adulthood- Important changes and coping up strategies in middle adulthood	5.0
30	Adulthood- Important changes and coping up strategies in late adulthood	5.0
31	Recent issues in growth and development –Life span approach (Infancy and Childhood)	2.5
32	Recent issues in growth and development –Life span approach (Adolescence and Adulthood)	2.5
Total		100

Practical Exercises

Exercise No.	Title
1	Observational visits to well-baby clinic/ Civil hospital- Maternity wards
2	Observational visits to well-baby clinic/ Civil hospital- NICU
3	Observation of full term babies (Clinical / Home set-up)
4	Observation of preterm babies(Clinical / Home set-up)
5	Rating of developmental tasks of infants (5 point scale)
6	Rating of developmental tasks of preschoolers (5 point scale)
7	Report writing on developmental tasks of infants and preschoolers
8	Rating of developmental tasks of school going children (5 point scale)
9	Report writing on developmental tasks of school going children
10	Rating of developmental tasks of adolescents (5 point scale)
11	Report writing on developmental tasks of adolescents
12	Rating of developmental tasks of adults and elderly persons(5 point scale)
13	Report writing on developmental tasks of adults and elderly persons(5 point scale)
14	Assessment of growth of infants and report writing
15	Assessment of growth of preschoolers and report writing
16	Assessment of growth of adolescents
17	Report writing - Assessment of growth of adolescents
18	Assessment of quality home environment provided to children in families
19	Report writing on quality home environment provided to children in families
20	Assessment of mental and motor development of infants (BSID)

21	Report writing on mental and motor development of infants
22	Assessment of IQ of children – Seguin Form Board Test (SFBT)
23	Educational video film on Biology of prenatal development(National geographic) and report writing
24	Educational video film on Stimulatory home environment
25	Educational video film on Stimulation and stimulants for wholesome development of young children –Part I
26	Educational video film on Stimulation and stimulants for wholesome development of young children –Part II & III
27	Group discussion and report writing on educational video films on (1)Stimulatory home environment (2) Stimulation and stimulants for wholesome development of young children
28	Educational video film on Human development
29	Report writing- Educational video film on Human development
30	A study on various problems encountered by the elderly persons
31	Report writing on various problems encountered by the elderly persons.
32	Preparation and presentation of resource file and submission of practical records.

Suggested Readings

1.Text books

- 1 Berk E.B. (2011) Child development. 8th ed. PHI Learning Private Ltd. New Delhi.
- 2 Elizabeth Hurlock (2000) Developmental psychology, A life span approach, Tata McGraw Hill Publishing Company Ltd., New Delhi.
- 3 Laura, B.E. (2013). Exploring life span development. 3rded. McGraw Hill, New York.
- 4 Santrock, J. (2012). Life span development. 14thed. McGraw Hill, New York.
- 5 Vishala Patnam (2013)Scientific parenting, Marathwada Krishi Vidyapeeth Parbhani (MS).

2.Reference Books

- 1 Gordon, K.J. (1975). Human development: A transactional perspective. Harper and Row Publishers, New York.
- 2 Grinder, R.E. (1993). Adolescence. John Wiley and Sons, New York.
- 3 Papalia, D.E. and Olds, S. W. (2008). Human development. 11thed. McGraw Hill, New York.
- 4 Schaimberg, L.B. (1988). Child and adolescent development. Macmillan publishing Company, New York.

3.e-Books

- 1 Douglas A.K. and Francis A.G.(2017) Leisure and Human Development. Sagamore Publishing LLC
.https:// [www.amazon.com/Leisure-Experience-Human Development/ 0813331498](http://www.amazon.com/Leisure-Experience-Human-Development/0813331498)
- 2 Mayuri K.and Khadi P.(2012) Life Span Development-I e-Home Science Courseware.
<http://ecourses.iasri.res.in/>

- 3 Saradadevi M and Prarthana P.(2012) Life Span Development-I e-Home Science Courseware. <http://ecourses.iasri.res.in/>
- 4 [Polan](#)E.U. and [Taylor](#)D.R. (2010) Journey Across the Life span: Human Development and Health Promotion.4thedn. <http://www.amazon.in/Journey-Across-Life-Span-Development/dp/080362316X>.

4.Educational Video Films

- 1 Biology of prenatal development. National Geographic. https://www.ehd.org/store/index.php?route=product/product&product_id=51
- 2 Patnam V.N.and Desetty R.V. (2005)Stimulatory home environment,College of Home Science VNMKV,Parbhani (MS).
- 3 Patnam V.N. (2007)Stimulation and stimulants for wholesome development of young children – PartI,II& III ,College of Home Science VNMKV,Parbhani (MS).

Course No. HDS 244 Title Educational Psychology and Early Childhood Education
Credits 4 (2+2) Semester IV

Theory

Educational psychology- Meaning, nature, scope and importance of educational psychology, history of its evolution, abroad and in India, recent trends and challenges in educational psychology; Concept of learning- definition, essential features, types of learning, laws of learning, principles of learning, learning traits- sensation, perception, imagination, attention and memory, remembering and forgetting; Intelligence-reasoning and thinking, temperament, problem solving, information processing ;Learning environment- reinforcement- definition, types of reinforcements, schedules of reinforcement, importance of reinforcement in learning; Punishment- meaning, functions, types, essentials of good punishment, effects of punishment on learning; Motivation- definition, types, modes of motivation (contingency contract, token economy) relationship of motivation with learning and performance ;Discipline- meaning, social attitudes towards it, need for discipline, wholesome and unhealthy functions of it, essentials in discipline, techniques of discipline, factors influencing choice of disciplinary techniques, evaluation of disciplinary techniques; Theories for classroom teaching and its applicability – learning theories of Jerome Bruner, Robert Gagne, Jean Piaget, Erik Erikson, Lev Vygotsky, Lawrence Kohlberg performance evaluation – meaning of evaluation/ testing, Ways of evaluation of student’s performance. Types of tests used in classroom evaluation. Advantages and abuses of testing and tests. Meaning, characteristics and significance of early childhood years. Programme planning in ECE- Steps and types of programme planning, activities to promote all round development of preschool children- cognitive, language, socio-emotional and motor development, role, qualities and responsibilities of an early childhood personnel.

Practical

Analyzing effects of reinforcement, motivation, discipline on learning. Application of theories of classroom teaching. Application of different methods of evaluating performance and interpretation. Observation and recording of activities in ECE center. Developing and conducting activities to promote all round development- Gross and fine motor skills, cognitive skills, language skills, creativity and socio emotional skills. Preparation of suitable teaching learning material used for preschool children.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Educational psychology- Meaning, nature,	2.5
2	Scope and importance of educational psychology	2.5
3	Educational Psychology-History of its evolution in abroad	2.5
4	Educational Psychology-History of its evolution in India	2.5
5	Recent trends in educational psychology	2.5
6	Challenges in educational psychology	2.5
7	Concept of learning- definition, essential features, types of learning	2.5
8	Laws of learning, principles of learning	2.5
9	Learning traits- sensation, perception, imagination, attention and memory, remembering and forgetting, intelligence-reasoning and thinking, temperament, problem solving, information processing	5.0
10	Learning environment- reinforcement- definition, types of reinforcements,	2.5
11	Schedules of reinforcement, importance of reinforcement in learning	2.5
12	Punishment- meaning, functions, types. Essentials of good punishment, effects of punishment on learning	5.0
13	Motivation- definition, types, modes of motivation (contingency contract, token economy)	2.5
14	Relationship of motivation with learning and performance	2.5
15	Discipline- meaning, social attitudes towards it	5.0
16	Need for discipline and its functions, Essentials in discipline	5.0
17	Techniques of discipline, factors influencing choice of disciplinary techniques, evaluation of disciplinary techniques	5.0
18	Theories for classroom teaching and its applicability – learning theories of Jerome Bruner, Robert Gagne	2.5
19	Learning theories of Jean Piaget, Erik Erikson	5.0
20	Learning theories of Lev Vygotsky, Lawrence Kohlberg	5.0
21	Performance evaluation – meaning of evaluation/ testing	2.5
22	Evaluation of student’s performance	2.5
23	Types of tests used in classroom evaluation- Advantages and abuses of testing	2.5
24	Types of tests used in classroom evaluation- Advantages and abuses tests	2.5
25	Meaning, characteristics and significance of early childhood years	2.5
26-27	Programme planning in ECE- Steps and types of programme planning	5.0
28	Various activities to promote all round development of preschool children- Physical and motor development cognitive, speech and	2.5

	language, socio-emotional, moral development	
29	Role, qualities and responsibilities of an early childhood personnel	2.5
30	Analysing effect of reinforcement, motivation, discipline on learning	2.5
31	Application of theories of classroom teaching	2.5
32	Application of different methods of evaluating performance and interpretation	5.0
	Total	100

Practical Exercises

Exercise No	Title
1	Orientation to the reinforcement techniques to be adopted for children's learning
2	Adoption of reinforcement techniques for learning of Lab. Pre-Primary School students
3	Analysing effects of adopted reinforcement techniques on learning of Lab. Pre-Primary School students.
4	Report writing on effects of reinforcement techniques adopted for learning of Lab. Pre-Primary School students.
5	Orientation to the motivation techniques to be adopted for children's learning
6	Adoption of motivation techniques for learning of Lab. Pre-Primary School students.
7	Analysing effects of adopted motivation techniques on learning of Lab. Pre-Primary School students.
8	Report writing on effects of motivation techniques adopted for learning of Lab. Pre-Primary School students.
9	Orientation to the disciplinary techniques to be adopted for children's learning
10	Adoption of disciplinary techniques for learning of Lab. Pre-Primary School students
11	Analysing effects of adopted disciplinary techniques on learning of Lab. Pre-Primary School students.
12	Report writing on effects of disciplinary techniques adopted for learning of Lab. Pre-Primary School students.
13	Studying applicability of Jerome Bruner's learning theory for class room teaching in Lab. Pre-Primary School.
14	Report writing on applicability of Jerome Bruner's learning theory for class room teaching in Lab. Pre-Primary School.
15	Studying applicability of Jean Piaget's learning theory for class room teaching in Lab. Pre-Primary School.
16	Report writing on applicability of Jean Piaget's learning theory for class room

	teaching in Lab. Pre-Primary School.
17	Studying applicability of Lev Vygotsky's learning theory for class room teaching in Lab. Pre-Primary School.
18	Report writing on applicability of Lev Vygotsky's learning theory for class room teaching in Lab. Pre-Primary School.
19	Studying applicability of B.F. Skinner's learning theory for class room teaching in Lab. Pre-Primary School.
20	Report writing on applicability of B.F. Skinner's learning theory for class room teaching in Lab. Pre-Primary School.
21	Application of different methods of evaluating performance of Lab. Pre-Primary students and its interpretation.
22	Report writing on different methods adopted for evaluating performance of Lab. Pre-Primary students and for its interpretation
23	Observation and recording of activities in Lab. Pre-Primary School
24	Report writing on activities observed in Lab. Pre- Primary School
25	Planning and conducting activities to promote Gross and fine motor skills of Lab. Pre-Primary School students.
26	Planning and conducting activities to promote cognitive skills of Lab. Pre-Primary School students,
27	Planning and conducting activities to promote , language skills of Lab. Pre-Primary School students, creativity and socio emotional skills.
28	Planning and conducting activities to promote creativity of Lab. Pre-Primary School students, socio emotional skills.
29	Planning and conducting activities to promote Socio-emotional skills of Lab. Pre-Primary School students.
30	Report writing on activities conducted for promoting wholesome development of Lab. Pre- Primary students
31	Preparation of suitable teaching learning material used for preschool children
32	Completion of practical records and its submission

Suggested Readings

1.Text Books

1. Agarwal, J S. (1984). Early Childhood Education. Foundation & Practice. National Psychological Corporation, Agra.
1. Dubious, N.F. (1979). Educational psychology and instructional decisions. Dorsey press
2. Klausmier, H.J. (1985). Educational psychology. Harper and Row, New York.
3. Mazur, J. E. (1989). Learning and behaviour. Prentice Hall, New Delhi.
4. Mertens, M.D. (2014). Research and evaluation in education and psychology. Sage publication.
5. Papalia, D. E. and Olds, S. W. (2008). Human development. 11thed. Mc Graw Hill. New York.
6. Vygotsky, L.S. (1962). Thought and Language. Cambridge, MA: MIT Press. (Original work published in 1934).
7. Vygotsky, L.S. (1978) Mind in Society: The development of higher psychological processes. Cambridge, MA: Harvard University Press.

2. Reference Books

1. Haggblom, Steven J.; Warnick, Jason E.; Jones, Vinessa K.; Yarbrough, Gary L.; Russell, Tenea M.; Borecky, Chris M.; McGahhey, Reagan; et al. (2002). The 100 most eminent psychologists of the 20th century. *Review of General Psychology*. **6** (2): 139 – 152. doi:10.1037/1089-2680.6.2.139
2. Hoare, Carol (2001). "Chapter 2, Erikson's Thought in Context". *Erikson on Development in Adulthood: New Insights from the Unpublished Papers*. Oxford University Press, USA. pp. 7–12. ISBN 978-0195131758
3. Mc Crae, R. R., & Costa Jr, P. T. (1997). Personality trait structure as a human universal. *American Psychologist*, *52*(5), 509..
4. Mc Adams, D. P. (2001). The psychology of life stories. *Review of General Psychology*, *5*(2), 100.

3.e-Books

Barry J. Zimmerman; Dale H. Schunk Lawrence Erlbaum Associates(2003) [Educational Psychology: A Century of Contributions](#) .

<https://www.questia.comlibrary108210158/educational-psychology-a-century-of-contributions>

Martyn Long Routledge Falmer (2000) [The Psychology of](#)

[Education](#)<https://www.questia.comlibrary102924406/the-psychology-of-education>

Susan Bentham Routledge(2002)[Psychology and](#)

[Education](#)<https://www.questia.comlibrary103317628/psychology-and-education>

Course No. HDS 355

Title Developmental Challenges in Children

Credits 3(2+1)

Semester V

Theory

Special needs and special education - concept & definition ,*classification* - Prevalence of disabilities in India; Needs of children with disabilities; Special education-concept & definition; Brief history of evolution of special education services in India; legislation and litigations of special education; Mainstreaming- definition, models of mainstreaming, effect of mainstreaming; Mental retardation-definition, classification, causes/ etiology, psychological and behavioral characteristics, educational considerations, managing child in school; Learning disabilities (LD) –definition, prevalence of learning disabilities in India, causes, measurement of LD, types and characteristics of LD children-characteristics of LD children, educational considerations for LD children,managing LD child in school: Emotional disorders- definition, classification, causes, identification of ED,psychological and behavioural characteristic, educational considerations for ED children, managing child in school; Communication disorders- definition- communication, speech & Language, causes, speech production-Language & communication development-classification of speech defects, identification-psychological and behavioural characteristics,educational considerations, managing child in school ; Hearing impairment- definition, anatomy and physiology of ear, classification of hearing loss, causes or etiology, measurement of HI children, psychological and behavioural characteristics, educational considerations for HI children, managing child in school; Visual impairment-definition, classification-common visual defects among partially blind or sighted children, anatomy and physiology of eye, causes / etiology, measurement of VI children, psychological and behavioural characteristics of VI

children, educational considerations for VI children, managing child in school; Physical impairment- definition, classification, assessment, psychological and behavioural characteristics of PI children, educational considerations for PI children, managing child in school; Giftedness- definition, types of intelligence, origins of giftedness, screening and identification of giftedness, psychological and behavioural characteristics of gifted children, attitudes towards gifted children, educational considerations for gifted children, Managing child in school; Rights and provisions, benefits and concessions for persons with disabilities; Intervention- concept, methods, steps and process: instructional methods, steps and process, modes of intervention, assessment process in early intervention programmes, role of professionals, need and importance of early Intervention.

Practical

Educational video film children with special needs, Observational visits to institutes for children with special needs. Identification of children with special needs in the local schools and community, Developing educational material on identification of children with special needs, Organizing education programmes for families of children with special needs, Planning, recreational and vocational activities for children with special needs, Analysis of Case Studies of children with special needs, Orientation to Special Accessories and Materials Used for Developmentally Challenged Children.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Special needs and special education -Concept & Definition , <i>Classification</i> - Prevalence of disabilities in India- .Needs of Children With Disabilities;	2.5
2	Special Education-Concept & Definition -Brief History of Evolution of Special Education Services in India, Legislation and litigations of special education;	2.5
3	Mainstreaming Definition, Models of mainstreaming, Effect of mainstreaming;	2.5
4 & 5	Mental retardation-Definition, Classification–Causes/ Etiology	7.5
6&7	Mental retardation- Psychological and behavioral characteristics – Educational considerations Managing child in school	7.5
8&9	Learning disabilities (LD) –Definition, Prevalence of Learning disabilities in India Causes.	2.5
10&11	Learning disabilities (LD) –.Measurement of LD: Types and characteristics of LD children- Characteristics of LD children- Educational considerations for LD children-.Managing LD child in school-	5.0
12&13	Emotional disorders- Definition, Classification and Causes.	5.0
14 & 15	Emotional disorders- Identification of ED-.Psychological and behavioural characteristics of children, Educational considerations for ED children – .Managing child in school	5.0
16 & 17	Communication disorders- Definition- Communication, Speech, Language and Causes, Speech production-Language & communication development.	7.5
18 & 19	Communication disorders- Classification of Speech defects -Identification- Psychological and behavioural characteristics-.Educational considerations- Managing child in school	7.5
	Hearing impairment- Definition, Anatomy and physiology of ear:	7.5

20 & 21	Classification of hearing loss- Causes or Etiology.	
22&23	Hearing impairment- Measurement of HI children: Psychological and behavioural characteristics Educational considerations for HI children- Managing child in school:	7.5
24& 25	Visual impairment-Definition, Classification- Common visual defects among partially blind or sighted children-Anatomy and physiology of eye: Causes or Etiology.	5.0
26&27	Visual impairment-Measurement of V children, Psychological and behavioural characteristics of VI children-. Educational considerations for VI children- Managing child in school:	2.5
28	Physical impairment- Definition, Classification- Assessment- Psychological and behavioural characteristics of PI.	5.0
29	Physical impairment- Educational considerations for PIChildren, Managing child in school.	2.5
30	Giftedness-Definition:Types of intelligence Origins of giftedness Screening and identification of giftedness.Psychological and behavioural characteristics of gifted children,Attitudes towards gifted children- Educational considerations for gifted children- Managing child in school	7.5
31	Rights and provisions - Benefits and concessions for persons with disabilities-	2.5
32	Intervention- Concept- Methods, steps and process:instructional methods-Steps and process -.Modes of intervention- Assessment Process in Early intervention programmes- Role of professionals- Need and importance of Early Intervention	5.0
	Total	100

Practical Exercises

Exercise No	Title
1	Educational video film on useful materials and activities for mentally challenged children for developing adaptive skills - Group discussion and report writing
2	Educational video film on Non-Government organization working for developmentally challenged children.- Group discussion and report writing
3	Feature film about learning disabled child.- Group discussion and report writing
4	Observational visit to school for mentally challenged children- Group discussion and report writing
5	Observational visit to school for hearing impaired children -Group discussion and report writing
6	Observational visit to block of Sarva Shiksha Abhiyan - Group discussion and report writing
7	Observational visit to Physiotherapy center -Group discussion and report writing
8	Observational visit to Speech therapy center - Group discussion and report writing

9	Orientation to special accessories and materials useful for developmentally challenged children - Group discussion and report writing
10	Observational home visit for collecting information for analysis of case studies of developmentally challenged children - Group discussion and report writing
11	Visits to local schools / community / clinics for identifying the signs of developmental delays in children - Data pooling, tabulation and discussing results.
12	Orientation to special accessories and materials for developmentally challenged children
13	Planning and developing educational activities and material for developmentally challenged children
14	Execution of planned educational activities and material for developmentally challenged children
15	Organizing education programmes for families of developmentally challenged children
16	Planning, recreational and vocational activities for children with special needs.

Suggested Readings

1. Text Books

1. Hallahan, D.P. and Kauffman, J.M. (1991). Introduction to exceptional children. 5th ed. Allyn and Bacon, Boston.
2. Kauffman & Hallahan (1991). *Exceptional children*, 5th edition, Introducing to special education. London: Allyn & Bacon.
3. Kirk, S.A. (1972). *Educating Exceptional Children*. Boston: Houghton Mifflin Company.
4. NIMH (1999), School readiness for children with special needs, National institute for the mentally challenged children, Manovikasagar P O. Secunderabad.

2. Reference Books

- 1 Achenbach, T.M. (1982). Developmental psychopathology. 2nd ed. John Wiley, New York.
- 2 Berdine, W.H. and Blackhurst, A.E. (1985). An introduction to special education. 2nd ed. Harper Collins, Lexington.
- 3 Hallahan P. Daniel and Kauffman (1988). Exceptional children, Introduction to special education, 4th edition, Prentice Hall International edition
- 4 Hegarty, S. (2002). Education and children with special need. Sage publication. New Delhi.
- 5 Loring, J. and Burn, G. (Eds.). (1978). Integration of handicapped children in society. Routledge and Kegan Paul, London.
- 6 NIMH (1999), Play Activities for Young Children with special needs, National Institute of Mental Handicapped, Manovikasagar, Secunderabad-500009
- 7 Prasad, J. and Prakash, R. (1996). Education of handicapped children, problems and solution. Kanishka publication distribution. New Delhi.
- 8 Philip, M. and Duckworth, D. (1985). Children with disabilities and their families: A review of research. Berks: NFER-NELSON Publishing Co., Windsor.
- 9 Rozario, J. and Karanth, P. (2003). Learning disability in India. Sage publication. New Delhi.
- 10 Tinberger, N. and Tinberger, E.A. (1983). Autistic children: New hope for a cure. Allen and Unwin, London.

- 11 Werner, D. (1994). Disabled Village Children (Indian edition). Voluntary Health Association of India, New Delhi.

3.e-Books

- 1 Nasreen B and Khadi P. (2012). Children with Developmental Challenges, e-Home Science Courseware, <http://ecourses.iasri.res.in/>.
- 2 Nasreen B and Khadi P. (2012). Intervention Programmes for Developmentally Challenged Children. e-Home Science Courseware, <http://ecourses.iasri.res.in>
- 3 Jayanthi N (2000) Step by Step we learn,
nimhIndia.gov.in/Tender%20advertisement%202023.09.2016.pdf
- 4 Jayanthi N (2000) Give them a Chance
nimhIndia.gov.in/Tender%20advertisement%202023.09.2016.pdf
- 5 Jayanthi N (2000) Sahnubuthi Nahi Sahyog .
nimhIndia.gov.in/Tender%20advertisement%202023.09.2016.pdf

Course No. HDS 366

Title Family Counselling and Child Welfare

Credits 3(2+1)

Semester VI

Theory

Concept, nature, scope, principles and need of family counselling, trust areas in family counselling- educational, vocational, social, personal, premarital and marital, problems in family counselling, methods of handling problems, approaches to evaluate family counselling, counselor's self-awareness and growth. Situation analysis of child, women, youth, elderly, disabled and reserved category in India and in the world- Census, Issues and challenges, determining factors for the present status, impact of present status on the family and society at large. Child welfare- definition, need, constitutional, provisions for children, legislations

pertaining to children, schemes/projects and policies for children, other activities of child welfare, Women welfare- definition, need, constitutional provisions for women, legislations pertaining to women, schemes/projects and policies for women Youth welfare- definition, need, constitutional provisions for youth, legislations pertaining to youth, schemes/projects and policies for youth Elderly welfare- definition, need, constitutional, provisions for elderly, legislations pertaining to elderly, schemes/projects and policies for elderly Disabled/ exceptional pupil welfare- definition, need, constitutional, provisions for

disabled, legislations pertaining to disabled, schemes/projects and policies for disabled Reserved category welfare- definition, need, constitutional provisions for reserved category, legislations pertaining to reserved category, schemes/projects and policies for reserved category National and international organizations and agencies working for child, women, youth, elderly and disabled welfare: UNICEF, WHO, CARE, DWACRA, NIPCCD, CIF etc.

Practical

Visits to organizations offering counseling to families; Studying the areas of family Counselling;. Identifying the families which are in need of counseling; Conducting counseling sessions to families, presentation of reports; Visits to various government and non government organizations working for the welfare of the children, Presentation of reports

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Family Counselling -Concept-, nature, Scope, Principles	2.5
2	Need of family counselling	2.5
3	Trust areas in family counselling- educational, vocational, social, personal, premarital and marital	5.0
4	Problems in family counselling-individual ,family members, methods of handling problems	2.5
5	Approaches to evaluate family counselling: Client / person centered therapy/counseling , Existential therapy	5.0
6	Counsellor's self-awareness and growth: counsellor's personality as well as clients' concerns and goals influence the choice of intervention Situation analysis of child, women, youth, elderly India and in the world- Census	2.5
7 -8	Counsellor's self-awareness and growth: How to develop self awareness, develop insight ,using self awareness –to identify needs ,key areas for self awareness- personality, values, habits ,needs , How Self-Awareness Makes You More Effective	5.0
9 - 10	Situation analysis of child- worldwide, Child Poverty, Disparities , Climate , Change and Children , gender equality in education, more affordable healthcare ,human rights,changing political context, emergencies, safety issues, and the realization of children's rights in situations, Situation analysis of child in India	5.0
11	Situation analysis of women-Culture,Politics,Education and economic development,Workforce participation,Land and property rights,Crimes against women,Acid throwing,Child marriage,Domestic violence,Dowry,Female infanticide and sex	5.0
12	Situation analysis of Youth -From education to employment: the skills crisis, unemployment ,Labour markets and regulations,Assistance and dependency,Vocational education	2.5
13	Situation analysis of Youth -In the world and in India - Census Situation analysis of disabled – Dependency ,low confidence, social status .Situation analysis of Reserved category ,Religious population of SCs/STs,laws, guidelines, and administrative action by the different levels of governments in India, The systems of reservation of India is a form of positive discrimination, facilitating a person in education, scholarship, jobs, and in promotion	5.0
14	Issues and challenges-nuclear families, education ,employment, Determining factors for the present status	2.5
15	Impact of present status on the family and society at large	2.5
16	Child welfare- definition, need, Child welfare- constitutional, provisions for children-	2.5

17	The laws of negligence and contract Schemes/projects Policies for children-, Maharashtra Government, Integrated Child Protection Scheme (ICPS), RCH, Juvenile Justice other activities of child welfare-etc	5.0
18	Women welfare- definition, need, constitutional provisions for women –	2.5
19	Gender Equality –to ensure gender equality and an end to violence against women.	2.5
20	Legislations pertaining to women- Laws relating to women, Laws relating to -working women, to marriage & divorce, to maintenance, Laws relating to abortion, Laws relating to property, succession, inheritance, guardianship & adoption	5.0
21	Youth welfare- definition, need, constitutional provisions for youth-- Legislations pertaining to youth—Maharashtra and in India, schemes/projects, policies	5.0
22	Elderly welfare- definition, need, constitutional, provisions for elderly-governmental on concessions and facilities-Health, Travel, Housing	5.0
23	Legislations pertaining to elderly-, rights of older persons ,Governmental concessions and facilities ,schemes/projects and policies for elderly	5.0
24	Disabled/ exceptional pupil welfare- definition, need, constitutional-for educational, economic, empowerment, provisions for disabled	5.0
25	Legislations pertaining to disabled-different scholarships, skill oriented programmes, integrated programmes, schemes/projects and policies for disabled	2.5
26	Reserved category welfare- definition, need, constitutional provisions	2.5
27	Legislations pertaining to reserved category, schemes /projects and policies for reserved category	2.5
28-29	National and international organizations and agencies working for child, women, youth, elderly and disabled welfare: Introduction UNICEF World Ware house-History, Functions and Structures, For women-Mother and Child	2.5
30-32	WHO,CARE, DWACRA, NIPCCD, CIF- etc.- History, Functions and Structures	5.0
	Total	100

Practical Exercises

Exercise No.	Title
1	Orientation to the family counselling
2	Orientation to the educational, vocational and social counselling
3	Orientation to the personal, premarital and marital counselling
4	Visit to the local Family Counselling Center of government/ non-government organization
5	Report writing on Visit to the Family Counselling Center of government/ non-government organization
6	Identifying the families which are in need of educational and vocational counselling

7	Conducting Counselling sessions for the families which are in need of educational and vocational counselling
8	Report writing on Counselling session conducted for the families for giving educational and vocational counselling
9	Identifying the families which are in need of premarital and marital counselling of premarital and marital counselling
10	Conducting Counselling sessions for the families which are in need of premarital and marital counselling
11	Report writing on Counselling session conducted for the families for giving premarital and marital counselling
12	Peer to peer guidance and counselling and its impact on knowledge and skills of students
13	Visit to local Govt. organizations working for the welfare of the women and children
14	Visits to local non-government organizations working for the welfare of the women and children
15	Report writing on local government and non-government organizations working for the welfare of the women and children
16	Completion of practical records and its submission

Suggested Readings

1.Text Books

1. Randhawa, M.S. (1991). The Rural and urban aged. National Book Organization, Unit IX, New Delhi.
2. Saraswathi, S. (1991). Youth in India. ICSSR, Govt. of India, New Delhi.
3. Marasimhan, S. (2001). Employment of women. Sage publication. New Delhi.
4. Boraian, P.M (2008). Employment of rural women. Concept publishing company. New Delhi.
5. Mehta, L.P and Jaiswal, S.S. (2001). Child labour and the laws. Deep and Deep publication. New Delhi.
6. Devi, L. (1998). Child and family welfare. Anmol publication. New Delhi.
7. Devaisia, L. (1991). Girl child in India. Ashish publishing house. New Delhi.
8. Down, W.S. (2006). Child welfare and family services. 8thedi. Pearson education publishers.
9. Pecora, J.P. (2009). The child welfare challenge: Policy, practice and research. Aldine transaction publisher.

2.Reference Books

1. NIPCCD. (1994). Child in India: A statistical profile. NIPCCD, New Delhi.
2. TISS (1994). Enhancing the role of family as agency for social and economic development. TISS Bombay. Vol. II, Part II.
3. UNICEF. (1990). Children and women in India: A situation analysis. Unit VI, VII

Course No. HDS 367

Credits 3 (0+3)

Title Education and Counselling for Parents & Community

Semester VI

Practical

Orientation on need and importance of parent and community education. Understanding recent issues and challenges. Parent-Child Relationships and its impact on children. Studying various methods of parent and community education. Visit of local community to identify parents of normal and exceptional children, rapport building, identifying families with problems and conducting case studies, acquiring familiarization with the tests and techniques used for the assessment of troubled families, identification of areas and issues for parent education, developing parent education programmes, Planning, conducting and evaluating parenting education programmes, Wisconsin model of community education, Study on communication barriers-differences between men and women, conducting sessions in the community on communication skills and effective human communication, Studying on various approaches and techniques of counselling, organizing counselling sessions for individuals, couples, parents and families of normal and exceptional children by using appropriate therapies – Cognitive behavioural therapy (CBT), Rational emotive behavioural therapy (REBT), Client centered and existential therapies etc, Establishing and managing the resource centre for parents and local community, Implementing and evaluating the programmes developed.

Practical Exercises

Exercise No.	Title
1	Orientation on need and importance of parent and community education.
2	Understanding recent issues and challenges in parent and community education.
3	Studying parent-child relationships and its impact on children.
4	Orientation to various methods of parent and community education.
5	Visit of local community to identify parents of normal and exceptional children .
6	Developing rapport with identified parents having normal and exceptional children.
7	Identifying low SES families having problems and conducting their case studies.
8	Identifying middle SES families having problems and conducting their case studies.
9	Identifying High SES families having problems and conducting their case studies.
10	Group discussion and report writing on case studies of the families having different problems belonging to low, middle and high SES
11	Orientation to tests and techniques used for the assessment of troubled families.
12	Orientation to Wisconsin model of community education.
13	A study on communication barriers-differences between men and women
14	Report writing on the study conducted on communication barriers-differences between men and women
15	Identification of areas and issues for organizing parent and community education programme in slum area.
16	Planning parent and community education programme on identified issues in slum area.
17	Execution of planned parent and community education programme on identified issues in slum area.

18	Evaluation and report writing on executed parent and community education programme on identified issues in slum area.
19	Identification of areas and issues for organizing parent and community education programme in urban area.
20	Planning parent and community education programme on identified issues in urban area.
21	Execution of planned parent and community education programme on identified issues in slum area.
22	Evaluation and report writing on executed parent and community education programme on identified issues in urban area.
23	Identification of areas and issues for organizing parent and community education programme in rural area.
24	Planning parent and community education programme on identified issues in rural area.
25	Execution of planned parent and community education programme on identified issues in rural area.
26	Evaluation and report writing on executed parent and community education programme on identified issues in rural area.
27	Orientation to various approaches and techniques of counselling,
28	Identification of areas and issues of parent counselling in slum area
29	Dealing identified areas and issues of parent counselling in slum area
30	Report writing on counselling given to the slum parents on identified issues.
31	Identification of areas and issues for parent counselling in urban area
32	Dealing identified areas and issues for parent counselling in urban area
33	Report writing on counselling given to the urban parents on identified issues.
34	Planning session in the community on developing communication skills and importance of effective human communication
35	Conducting session in the community on communication skills and effective human communication.
36	Report writing on session conducted in the community on communication skills and effective human communication.
37	Organizing counselling sessions for individuals by using appropriate therapies
38	Report writing on counselling session organized for individuals by using appropriate therapies
39	Organizing counselling session for couples by using appropriate therapies
40	Report writing on counselling session organized for couples by using appropriate therapies
41	Organizing counselling session for parents and families of normal children by using appropriate therapies
42	Report writing on counselling session organized for families of normal children by using appropriate therapies
43	Organizing counselling session for parents and families of exceptional children by using appropriate therapies.
44	Report writing on counselling session organized for families of exceptional children by using appropriate therapies.
45	Visit to local counselling centres of government and non-government organizations

46	Visit to local counselling centres of non-government organizations
47	Report writing on visit to local counselling centres of government and non-government organizations
48	Completion of practical records and submission

Suggested Readings

1.Text Books

1. Campbell, D. (2003). Group parent education: Promoting parents learning and support. Sage publication.
2. Epstein, L.J. (2010). School, family and community Partnership: Preparing educators and Improving School, West view press.

2.Reference Books

1. American Psychological Association. (2000). What is psychology? About the American Psychological Association web page (<http://www.apa.org/about>).
2. Lauren Girard Adams, Esq. and Maisley Paxton(2008)Counseling Children and Youth in Times of Crisis: Tips to Achieve Success and Avoid Pitfalls. American Bar Association Section of Litigation Children’s Rights Litigation Committee
<http://apps.americanbar.org/litigation/committees/childrights/video/1006-interviewing-child-client.html>.
3. UNESCO (1995) Recent trends and developments in educational psychology: Chinese and American perspectives Published by the United Nations Educational, Scientific and Cultural Organization, Place de Fontenoy, 75352 Paris 07 SP UNESCO, ISBN 92-3-102980-0
4. Tett, L. (2006). Community education: Lifelong learning and social inclusion (Policy and practice in education). Dunedin Academic Press.

3.e- Books

Kelvin Seifert, et al. (2010)Contemporary Educational Psychology,
<http://www.e-booksdirectory.com/details.php?ebooks=5748>

STUDENT READY PROGRAMME 40(0+40)

Course No. SRP 471 Title Implant Training
Credits 10 (0+10) Semester VII

Course No. SRP 472 Title Rural Awareness Work Experience
Credits 10 (0+10) Semester VII

Course No. SRP 481 Title Experiential Learning
Credits 20 (0+20) Semester VIII

DEPARTMENT OF RESOURCE MANAGEMENT AND CONSUMER SCIENCE

Course No. RMCS 111

Title Fundamentals of Art and Design

Credits 3 (1+2)

Semester I

Theory

Introduction and objectives of interior decoration. Elements of art and their importance in interior decoration. Principles of design and their application to enrich the interiors Colour: sources of colour, properties of colour, emotional effect of colour, colour schemes, colour theories, colour plans for interiors Furniture – types of furniture, materials and finishes of furniture, factors affecting the selection of furniture, care and maintenance of furniture, furniture arrangement, paints to be considered while selecting the furniture. Wall classification, types of building walls, functional characteristics of walls, types of wall treatments, exterior and interior wall finishes. Floor importance, types of floor covering, care, maintenance and selection of floor covering. Windows – importance, its functional and decorative treatments. Accessories – classification, application of principles of design and decoration in the selection/development of accessories, and their placement.

Lighting – importance, types of lighting and its application. Flower arrangement – materials used, principles involved, types, practical utility and care. Table setting – linens, tableware etc. required for table setting, table etiquettes.

Practical

Learning elements of art and principles of design. Development of motif and design through art principles. Colour – colour schemes, values and intensity scale, colour wheel. Furniture – care and arrangement of furniture. Accessories – preparation and placements of accessories. Flower arrangement. Learning different types of table setting and napkin folding. Window treatment. Lighting, fixtures and then utility. Market survey – different types of wall and floor coverings.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1.	Introduction and objectives of interior decoration. Elements of art and their importance in interior decoration.	7
2 and 3	Principles of design and their application to enrich the interiors	10
4	Colour: sources of colour, properties of colour, emotional effect of colour	7
5	Colour schemes, colour theories, colour plans for interiors.	10
6 & 7	Furniture – types of furniture, - materials and finishes of furniture, factors affecting the selection of furniture, care and maintenance of furniture, furniture arrangement, paints to be considered while selecting the furniture.	10
8 & 9	Wall – classification, types of building walls, functional characteristics of walls, types of wall treatments, exterior and interior wall finishes.	10
10	Floor importance, types of floor covering, care, maintenance and selection of floor covering.	8

11	Windows – importance, its functional and decorative treatments.	8
12	Accessories – classification, application of principles of design and decoration in the selection/development of accessories, and their placement.	8
13	Lighting – importance, types of lighting and its application-.	8
14 &15	Flower arrangement – materials used, principles involved, types, practical utility and care	10
16	Table setting – linens, tableware etc. required for table setting, table etiquettes	4
	Total	100

Practical Exercises

Exercise No.	Title
1.	Illustrating elements of art Line, form and colour texture, light, pattern, space through motifs, photos, and pictures
2.	Application of principles of interior design and Decoration: Harmony- line and shape
3.	Balance- Formal and Informal
4.	Proportion- Space relationship- and Change in appearance Principle of Scale
5.	Rhythm
6.	Emphasis
7.	Development of naturalistic ,geometric and stylized motifs Development of design through art principles
8.	Developing colour schemes- Monochromatic Colour Schemes
9.	Analogous Colour Schemes
10.	Complementary Colour Schemes- Double Complementary Colour Schemes
11.	Split Complementary Colour Schemes
12.	Triad Colour Schemes
13.	Developing Values and intensity scale
14.	Drawing Prang Colour wheel
15.	Furniture – care of wood ,metal, glass, cane, plastic and leather furniture
16.	Arrangement of furniture for different rooms. Drawing floor plan of Drawing ,Bed and Dining room on graph paper to the scale
17.	Selection of furniture and preparing furniture templates to the scale
18.	Showing different Furniture arrangements with the help of templates on graph paper along with floor covering and colour schemes
19.	Accessories –Preparation and placement of utility and decoration articles by using various painting/printing, paper mache techniques

20.	Preparation of fabric painting, glass painting, pottery, collage, handicrafts and placements of accessories
21.	Demonstration of application of art principles while arranging flowers pot
22.	Practicing line flower arrangements
23.	Practicing mass flower arrangements
24.	Practicing combination of mass and line flower arrangements
25.	Learning different types of table setting –formal and informal methods of meal serving
26.	Practicing different shapes in napkin folding for decorating table setting
27.	Window treatments Curtains, draperies- blinds, valance, pelmet, shades
28.	Lighting, fixtures and their utility
29.	Market survey – different types of wall and floor coverings. Visit two shops of Wall papers and wall tattoos and collecting information on cost ,types, availability etc
30.	Visit two shops of Linoleum, vinyl ,rubber ,cork , and wood floor coverings collecting information on cost ,types, availability etc
31.	Visit two shops of paints for collecting information on cost ,types, availability etc
32.	Visit two shops of tiles and, stones for collecting information on cost ,types, availability etc

Suggested Readings

1.Text Books

1. Dorothei, *et al.*, (1980). Introduction to Interior Design. New York: Mc Millan.
2. Faulkner and Faulkner. (1975). Inside Today's Home. New York: Holt, Rinehart and Winston.
3. Ruth, M. (1975). The Home and its Furnishings, U.S.A.: Mc. Graw Hill.
4. Goldstein and Goldstein (1954). Art in everyday life, Macmillan publishing Co.,,Inc. New York.

2. Reference Books

1. Gewther, M. (1970). The Home, its Furnishings and Equipment U.S.A. Mc. Graw Hill.
2. Mike, L. (1986). The Complete Interior Decoration. United Kingdom: Mc Donald.
3. Seetharaman P. and Sethi M. (2002). Interior Design and Decoration. CBS Publishers and Distributors. New Delhi.

3.e-Books

1. Interior design books on home decorating
www.interiordezine.com/free downloads
2. Interior & lighting design
www.designfull.en
3. The art of interior decoration by Emily Burbank
Manybooks.net/titles/burbanke1429814298

Course No. RMCS 122 Title System Dynamics and Management of Resources
Credits 3 (2+1) Semester II

Theory

Systems approach to management. Motivating factors of management- values, goals and standards, origin, classification and role , Resources – definition, types , guidelines for use of resources and factors affecting, management of household resources and situation, Management process- planning - importance, types, characteristics and techniques, organizing; controlling- definition, phases and factors, evaluating- definition and types of evaluating. Time - tools of time management, and process of time management. Decision making process - types, steps in decision making and factors affecting decision making. Management process applied to energy – Concept, fatigue, measures to relieve fatigue, Process of energy management, effective use of body. Work simplification-concept, techniques and classes of change.

Practical

Identification of individual and family values, identification of immediate, short term and long term goals of individual and family. Standards for individual and family goals. Decision making by individuals and families. Applying decision making process, group work presentation on types of decision and decision making process. Listing out human and non – human resources, listing community resources. Application of management process to organize an event – planning, organization, evaluation. Management of personal time record for a week. Presentation of personal time record. Paper and pencil techniques.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1 & 2	Systems approach to management.	5
3 & 4	Motivating factors of management- values	5
5 & 6	Motivating factors of management- goals and standards classification and role	10
7 & 8	Resources-definition, types , guidelines for use of resources	10
9 & 10	factors affecting, management of household resources and situation	5
11 & 12	Management process- planning - importance, types,	5
13 & 14	Characteristics and techniques	5
15 & 16	Organizing; controlling- definition, phases and factors	5
17 & 18	evaluating- definition and types of evaluating	5
19 & 20	Time - tools of time management and process of time management	7
21 & 22	Decision making process - types,	8
23 & 24	steps in decision making and factors affecting decision making	7
25 & 26	Management process applied to energy – Concept	3
27 & 28	fatigue and Measures to relieve fatigue	5
29 & 30	Process of energy management, effective use of body.	5
31 & 32	Work simplification-concept, techniques and classes of change.	10
	Total	100

Practical Exercises

Exercise No.	Title
1	Identification of individual and family values
2	Identification of immediate, short term goals of individual and family. Identification of long term goals of individual and family.
3	Standards for individual and family goals
4	Decision making by individuals and families
6	Applying decision making process in individual cases
7	Applying decision making process in group and explaining conflict, consensus
8	Group work presentation on types of decision and decision making process
9	Listing out human and non – human resources, listing community resources
10	Application of management process to organize an event – planning
11	Application of management process to organize an event – organization
12	Application of management process to organize an event
13	Evaluation of management process of organized event
14	Management of personal time record for a week.
15	Presentation of personal time record.
16	Paper and pencil techniques.

Suggested Readings

1. Text Books

- 1.Mann, M.K. (2004). Home Management for Indian Families, Kalyani Publisher Ludhiana
2. Nickell, P. and Dorsey, J.M. (1970). Management of Family Living. Wiley Eastern, New Delhi

2. Reference Books

- 1.Vargeese, M.N. Ogale, N.N. and Srinivasan, K. (1992). Home Management, Wiley Eastern, New Delhi.
- 2.Krishna Oberoi (2006). Resource Management for Better Homes. R.K. Offset, Delhi.
3. Bhargava, Bela. (2005). Family Resource Management and Interior Decoration. Apple Printer and V. R. Printers, Jaipur.

3.e-Books

Time management-books-bookboon
Bookboon.com/en/time managementebook
Human resource Management
Bookboon.com/en/time managementebook

Course No. RMCS233 Title Financial Management and Consumer Education

Credits 3 (2+1) Semester III

Theory

Concepts, importance, objectives and major aspects of family finance. Income concepts: productive income, hidden income, money income, real income, psychic income. Family – as income producing and utilizing unit, factors affecting in the use of family income. Analyzing income: income profile, methods of handling income, account keeping. Family budget: steps of budget making, factors

influence on budget making, advantages of budget making, Engel's law of consumption, standard of living. Credit- needs, types, and source, planning for financial security of families- Definition, guidelines and reasons, credit institution- Banks and finance agencies. Savings and Investment- types of savings / investment, Saving institutions and its importance, criteria for selecting family investments. Taxation- objectives, and classification. Consumer – definition and role, concept of consumer and consumer economics. Consumer problems in rural and urban areas. Unfair trade practices- adulteration, faulty weights and measures, over pricing, adulteration. Consumer rights and responsibilities. Consumerism and consumer protection ,consumer protection Act and Govt. legislation and order, NGO's for consumer protection and welfare. Standard and standardization and legislative measures for regulating quality. Sources of consumer information – advertisements, labels, packaging etc.

Practical

Study of income profiles of various occupations, Study of Methods of handling money, Preparation of family budget for various occasions, Visit to various saving institutions and preparation of report on various facilities, Assessment of personal tax, Analysis of information sources available for consumers, Preparing the information material for consumers, Arranging consumer awareness campaign.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Concepts, importance, objectives and major aspects of family finance	2
2	Income concepts: productive income, hidden income, money income, real income, psychic income.	5
3	Family – as income producing and utilizing unit, factors affecting the use of family income	5
4	Analyzing income: income profiles	2
5	Methods of handling income, account keeping	2
6&7	Family budget: steps of budget making, factors influencing on budget making, advantages of budget making	6
8	Engel's law of consumption, standard of living.	2
9 &10	Credit- needs types, use and household sources	5
11& 12	Planning for financial security of families,	5
13	Credit institutions	4
14&15	Savings and Investment- types of savings and investment,	6
16&17	Saving institution and its importance	6
18	Criteria for selection of investments	4
19	Taxation- objectives, importance and classification	4
20	Consumer – definition and role, concept of consumer and consumer economics	5
21	Consumer problems in rural and urban areas:	4
22	Unfair trade practices, adulteration, faulty weights and measures	5

23 & 24	Consumer rights and responsibilities.	5
25 & 26	Consumerism and consumer protection-	5
27 & 28	Consumer protection Act and Govt. legislation and order	4
29	NGO's for consumer protection and welfare	4
30	Standard and standardization	3
31	Legislative measures for regulating quality.	3
32	Sources of consumer information – advertisements, labels, packaging, manufacturer's catalogue etc.	4
	Total	100

Practical Exercises

Exercise No.	Title
1	Study of income profiles of various occupations
2	Income profiles of various occupations
3	Study of Methods of handling money
4	Preparation of family budget for a month
5	Preparation of family budget for various occasions
6	Visit to various saving institutions Banks
7	Visit to various saving institutions Post office
8	preparation of report on various facilities
9	Study of Income Tax assessment slabs
10	Assessment of personal tax
11	Study of information sources available for consumers
12	Analysis of information sources available for consumers
13	Learning Preparation of the information material for consumers
14	Preparing the information material for consumers
15	Arranging consumer awareness campaign in schools
16	Arranging consumer awareness campaign in various residential localities

Suggested Readings

1.Text Books

- 1.Seetharaman P. Sethi M. (2002). Consumerism Strategies and Tactics. CBS Publishers and Distributors. New Delhi.
- 2.Khetarpaul, N and Grover, I. (2004). Consumer Guide for Home Maker – Udaipur: Agratech Pub Academy.

2.Reference Books

- 1.Bhargava, Bela. (2005). Family Resource Management and Interior Decoration. Univ. book home Pvt. Ltd. Jaipur.
- 2.Maneesha Shukul and Veena Gandotra. (2006). Home Management and Family Finance. Dominant Publishers and Distributors, New Delhi.
- 3.Mann, M.K. (2004) Home Management for Indian Families. Kalyani Publishers, New Delhi.
- 4.Rice, Nickel and Tucker. (1976). Management in Family Finance. John Wiley and Sons., New York

5. Tiwari, O.P. (2000). Consumer Protection Act Allahabad: Allahabad Law Agency.
6. Varghese, M.N. Ogale, W. N. and Srinivasan, K. (1997). Home Management, New Delhi: New Age International.
7. Seshadri, V 2006 Consumerism 1st edn Mittal, N. Delhi

3.e-Books

e-books: Financial Management | Download book - Free Book Centre
www.freebookcentre.net/...books-download/Financi...
 Free Finance Books Download | Ebooks Online Textbooks Tutorials
www.freebookcentre.net/.../Finance-Books.html
 Financial Management - Free E-Books - E-Books Directory
www.e-booksdirectory.com/listing.php?category...
 strategic Financial Management : Free Download ...
<https://archive.org/.../StrategicFinancialManagement>
 Free Financial Management Books
www.bizmove.com/books/financial-management-bo...
 Finance Skills PDF - Free Download - Free Management eBooks
www.free-management-ebooks.com/.../finance-skills...
 Strategic Financial Management -lib.mdp.ac.id/ebook
 Strategic Financial Management BookBoon.com.

Course No. RMCS 244

Title Housing and Space Management

Credits 3 (2+1)

Semester IV

Theory

Housing and its importance, effect of insufficient housing. Factors to be considered in selection of family housing, and site, housing needs at different stages of family life cycle. Rural and urban housing problems in India. Housing legislation and regulation - Building Act 1984, Defective Premises Act 1972, Disability Discrimination Act 1995, Housing policies - government and non-government housing policies. Housing standards – sanitary facility, food preparation and refuse disposal, space and security, thermal environment, illumination and electricity, water supply, access, site and neighborhood, sanitary condition and smoke detectors. Types of house plans – floor plan, site plan, cross sectional plan, perspective plan, elevation plan and landscape plan. Housing finance - government and non- government finance institutes. Advantages and disadvantages of renting and owning a house. Classification of building materials. Economy in housing construction , principles of house planning (orientation, privacy, grouping, roominess, sanitation, ventilation, flexibility, circulation, economy, furniture requirement). Ergonomics and housing , space management and Interior types based on functional needs – interior for youth, elderly and other special needs, functional design of areas in interior.

Practical

Learning architectural symbols. Drawing different types of house plans, Develop conceptual drawings and floor plans for different income levels and activity groups. House plan for renovation according to needs of residents. Designing of kitchen, bathroom etc. for special needs. Market survey to study the available building materials in the local market.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Housing and its importance	5
2	Effect of insufficient housing on social and psychological health	5
3	Factors to be considered in selection of family housing,	5
4 & 5	Factors to be considered while selecting site of house,	5
6	Housing needs at different stages of family life cycle	4
7&8	Rural and urban housing problems in India	4
9,10 & 11	Housing legislation and regulation - Building Act 1984, Defective Premises Act 1972, Disability Discrimination Act 1995	6
12 & 13	Housing policies - government and non- government housing policies and housing schemes.	5
14 &15	Housing standards – sanitary facility, food preparation and refuse disposal, space and security, thermal environment, illumination and electricity,	5
16 & 17	Housing standards –water supply, access, site, neighbourhood, smoke detectors, and sanitary conditions.	5
18 &19	Types of house plans – floor plan, site plan, cross sectional plan, perspective plan, elevation plan and landscape plan.	5
20	Housing finance - government and non- government finance institutes.	5
21	Advantages and disadvantages of renting and owning a house.	5
22	Building materials- Classification	5
23	Economy in housing construction	6
24	Principles of house planning (orientation, privacy, grouping, roominess, sanitation, ventilation, flexibility, circulation, economy, furniture requirement)	6
25 & 26	Ergonomics and housing - space management and Interior types based on functional needs	8
27,28 &29	Interior for youth, elderly and other special needs	6
30,31 & 32	Designing the functional areas in interior.	5
	Total	100

Practical Exercises

Exercise No.	Title
1	Getting acquainted with the drawing material equipment
2	Learning architectural symbols
3	Drawing site plans
4	Understanding different types of house plans
5	Develop conceptual drawings
6	Develop floor plans for various income groups

7	Drawing of house plans for different activity
8	Drawing of house plans for different groups
9	Understanding renovation and preparing rough plans
10	House plan for renovation according to needs of residents
11	Enlisting special needs and ergonomic/anthropometric requirements
12	Rough drawings of kitchen plans for special needs
13	Designing of kitchen for special needs
14	Enlisting special needs and ergonomic/anthropometric requirements for bathroom design
15	Designing of bathroom etc. for special needs
16	Market survey to study the available building materials in the local market

Suggested Readings

1.Text Books

1. S. Renuka and Mahalaxmi Reddy (2009) Housing and space management ICAR, New Delhi.
2. Dorothy Stepat – Devan, Kathryn Camp Logan, Darlene M. Kness, Laura Szekely. Macmillan Publishing Co., Inc, New York.

2.Reference Books

1. Cherunilam, F. and Heggade, O. (1987). Housing in India. Mumbai: Himalaya Publishing.
2. Faulkner, R. and Faulkner, S. (1975). Inside Today's Home. New York: Rinehart and Winston.
3. Mathur, G.C. (1993). Low Cost Housing in Developing Countries. New Delhi: Mohan Pramlani, Oxford and IBH.
4. Tesis Agan, M.S. (1970). The House. New Delhi: Oxford and IBH

3.e-Books

Body space- Anthropometry- ergonomics and design of work

<http://www.amazon.in>

Anthropometry- ebook

<http://www.amazon.in>

Multi family Housing: The art of sharing

www.ebook777.com

Body space- Anthropometry- ergonomics and design of work

<http://www.amazon.in>

Course No. RMCS 245

Credits 3 (1+2)

Title Ergonomics and Appropriate Technologies

Semester IV

Theory

Work-worker and workplace relationship, Principles of ergonomics, Household drudgery- definition, Drudgery reduction, Household equipment- introduction, definition, Classification and base materials used in construction, Impact of household equipment's on work, worker and environment, Equipment design and its effect on body posture, Energy – definition, classification and sources, Renewable and non-renewable energy saving technologies

Practical

Use and care of common household appliances Market survey of available household appliances Report writing Study of labels and specifications of household equipment's Drawing and labeling parts of Electric Iron, mentioning the faults and care. Drawing and labeling parts of Electric Kettle. Mentioning the faults and care. Drawing and labeling parts of Gas Stove mentioning the faults and care. Drawing and labeling parts of Coffee Percolators Mentioning the faults and care. Drawing and labeling parts of Refrigerator Mentioning the faults and care. Drawing and labeling parts of washing machine Mentioning the faults and care. Drawing and labeling parts of vacuum cleaner Mentioning the faults and care .Oven, Microwave Mentioning the faults and care. Air Conditioners Mentioning the faults and care. Video on Anthropometric measurement. Anthropometric measurement of workers. Body map Index. Borg's scale of perceived exertion. Demonstration of /Visit to solar park. Demonstration of solar household Technologies. Demonstration of /Visit to biogas Demonstration of /Visit to zero energy cool chamber etc. Preparation of Scrap book/ charts. Presentation / Demonstration

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Introduction and Concept of the course	--
2 & 3	Household equipment- introduction, definition	5
4 & 5	Classification and base materials used in construction	5
6 & 7	Principles and working of common household equipment	5
8	Work-worker and workplace relationship	5
9	Principles of ergonomics	5
10	Household drudgery- definition, Drudgery reduction	10
11	Impact of household equipment's on work, worker and environment	15
12	Workplace- concept, design, dimension of workplace, evaluation, use of checklist	10
13	Equipment design and its effect on body posture	20
14,15 & 16	Energy – definition, classification and sources Renewable and non-renewable energy saving technologies	20
	Total	100

Practical Exercises

Exercise No.	Title
1	Use and care of common household appliances
2	Use and care of common electrical household appliances
3	Market survey of available household appliances
4	Visit to malls for survey of available household appliances
5	Compiling data of market survey

6	Report writing
7	Study of labels and specifications of household equipment's
8	Drawing and labelling parts of Electric Iron, mentioning the faults and care.
9	Drawing and labelling parts of Electric Kettle. Mentioning the faults and care.
10	Drawing and labelling parts of Gas Stove mentioning the faults and care.
11	Drawing and labelling parts of Coffee Percolators Mentioning the faults and care
12	Drawing and labelling parts of Refrigerator Mentioning the faults and care
13	Drawing and labelling parts of washing machine Mentioning the faults and care
14	Drawing and labelling parts of vacuum cleaner Mentioning the faults and care
15	Oven, Microwave Mentioning the faults and care
16	Air Conditioners Mentioning the faults and care
17	Video on Anthropometric measurement
18	Demonstration on recording Anthropometric measurement
19	Recording Anthropometric measurement of Classmates
20	Recording Anthropometric measurement of workers
21	Compilation of data on Anthropometric measurement
19	Understanding use of Body map Index
20	Learning application of Borg's scale of perceived exertion
21	Compiling and presenting data of perceived exertion
22	Demonstration of /Visit to solar park
23	Writing report of visit to solar park
24	Demonstration of solar household Technologies
25	Writing report of visit to solar household Technologies
26	Demonstration of /Visit to biogas
27	Writing report of visit to biogas
28	Demonstration of /Visit to zero energy cool chamber etc.
29	Writing report of visit to zero energy cool chamber etc
30	Preparation of Scrap book
31	Preparation of charts
32	Presentation / Demonstration

Suggested Readings

1.Text Books

1. Grandjean, E. (1981). Ergonomics of the Home Taylor and Francis Ltd. New York.
2. Grandjean, E. and Kroemer, K.H.E. (1999). Fitting the Task to the Human a Text Book of Occupational Ergonomics. Taylor and Francis, New York.
3. Peet, I.J and Arnold, M.G. (1993). Household Equipment. John Wiley, New York.
4. Science and Technology for Women. (1993). Compiled by Center of Science for Village. Wardha. Department of Science and Technology, New Delhi.

2.Reference Books

1. Singh, S. (2007). Ergonomics Integration for Health and Productivity. Himanshu Publication, Udaipur, New Delhi.
2. Steidle, Rose and Bratton. (1968). Work in the Home. John Wiley and Sons Inc. New York.
3. Swanson, Bettye. (1983). Introduction to Home Management Macmillan Publishing Co. Inc. New York.
4. Varghese, M.N., Ogale, N.N. and Srinivasan, K. (1992). Home Management. Wiley Eastern, New Delhi.
5. S.Renuka and Mahalaxmi V Reddy. (2009). Housing and Space Management. ICAR New Delhi.

3.e-Books

Ergonomics,human factors- books related to design

[www.design](http://www.design.in) in India.net

Ergonomic books

<http://www.designer.com>

Household Appliances

www.about.com

Household Equipment

Gdpub.info/household-equipment.php

Course No. RMCS356

Title Residential and Commercial Space Design

Credits 3 (2+1)

Semester V

Theory

Residential Building- Concept and types and work zones, Commercial Building- Concept and types and type of spaces Ergonomic Designing of residential spaces- living, dining, kitchen, sleeping etc. Ergonomic Designing of commercial spaces, Design and space organization analysis of independent house of different income groups. Design and space organization analysis of apartments and flats. Understanding on building bye laws- Residential and Commercial buildings specifications essential for building, and service management. Selecting materials and finishing scheme for interiors. Types of fittings, fixtures, furniture, lighting and materials for Residential buildings. Types of fittings, fixtures, furniture, lighting and materials for commercial buildings. Appraisal on space needs in Residential and commercial buildings. Design issues of commercial buildings. Study of commercial interiors for

business establishments, hotels/restaurants, hospitals, educational buildings, public service buildings
 Specifications writing- writing detailed clause by clause specification for materials pre and post execution, tests, mode of measurements, manufacturer's details and specifications etc.

Practical Develop layouts of furniture, lighting, electrical and plumbing for various income groups. Practical applications of design and space organization of apartments and flats and analysis. Cost estimation for designing interiors of various income groups. Planning of ergonomic work layout for a small project (1000 sq.ft.). Planning of ergonomic work layout for commercial areas. Evolving interior decoration details with material sample for the small project. Evolving interior decoration details with material sample for the a large commercial area. Presentation of the detailed work done for small projects. Presentation of the detailed work done for large commercial projects.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1 &2	Residential Building- Concept and types and work zones	05
3&4	Commercial Building- Concept and types and type of spaces	05
5,6,7	Ergonomic Designing of residential spaces- living, dining, kitchen, sleeping etc.	08
8 &9	Ergonomic Designing of commercial spaces	08
10&11	Design and space organization of independent houses of different income groups.	04
12	Design and space organization of apartments and flats	04
13,14	Understanding on building bye laws- Residential and Commercial buildings	05
15 & 16	Regulations and specifications essential for building, and service management- Technical services	05
17 & 18	Criteria for Selecting materials and finishing scheme for interiors	05
19 &20	Types of fittings, fixtures, furniture, lighting and materials for residential building	08
21 & 22	Types of fittings, fixtures, furniture, lighting and materials for commercial buildings	08
23 & 24	Appraisal on space needs in residential buildings	05
25 & 26	Appraisal on space needs in commercial buildings	05
27& 28	Design issues of commercial buildings	05
29 & 30	Study of commercial interiors for business establishments- hotels/restaurants, hospitals, educational buildings, public service buildings	15
31 & 32	Specifications writing,- writing detailed clause by clause specification for materials pre and post execution ,tests, mode of measurements, manufacturer's details and specifications etc.	05
	Total	100

Practical Exercises

Exercise No.	Title
1	Orientation about space drawings
2	Developing layouts of furniture for various income groups
3	Developing layouts of lighting and electrical points for various income groups.
4	Developing layouts of plumbing for various income groups.
5	Practical applications of design and space organization of apartments and flats and analysis.
6	Analysis of design and space organization of apartments and flats.
7	Cost estimation for designing interiors for low and middle income groups
8	Cost estimation for designing interiors for high income groups
9	Planning of ergonomic work layout for a small project (1000 sq. ft.)
10	Evolving interior decoration details with material sample for the small project
11	Planning of ergonomic work layout for a large commercial project
12	Evolving interior decoration details with material sample for the a large commercial area
13	Presentation of the detailed work done for small projects (I)
14	Presentation of the detailed work done for small projects (II)
15	Presentation of the detailed work done for large commercial projects (I).
16	Presentation of the detailed work done for large commercial projects (II)

Suggested Readings

1.Text books

1. Chiara, Joseph D.,Julius,Panero...2001 Time saver standard for interior design space planning2nd ed. McGraw Hills, N.Y.
2. S.Renuka and Mahalaxmi V Reddy. (2009). Housing and Space Management. ICAR New Delhi.

2.Reference Books

1. Bonda P. and Sonsnowchik K. (2007). Sustainable Commercial Interiors. John Wiley and Sons Publication.
2. Carol Simpson, Estimation for Interior Designers, Watson Guptill, Rev. Sub edition, 2001.
3. Crafti. (2004). The office – Designing for Success. 2004. Images Publication
4. Francis, D. (1997). The New Office. Conran Octopus Publication
5. Harmon. S and Kennon, K. The Codes guidebook for Interiors. Fifth Edition. John Wiley and Sons Publication.
6. Leibing W. Ralph (1999). Architectural Working Drawings, 4th edition John Wiley and sons, New York.
7. Piotrowski, C. and Rogers, E. (1999). Designing Commercial Interiors. Second Edition. John Wiley and Sons Publication.

3.e-Books

Body space- Anthropometry- ergonomics and design of work

<http://www.amazon.in>

Anthropometry- ebook

<http://www.amazon.in>

Multi family Housing: The art of sharing

www.ebook777.com

Course No. RMCS357

Title Event Management

Credits 3(0+3)

Semester V

Practical

Identifying practical situations for event management. conceptualizing goal and objectives. Overall show management. Exhibit sales and promotion. Attendance promotion .Contract negotiations.

Festivals (Diwali, religious ceremonies). Social gathering.Conference/workshop/seminar/congress programming. SWOT analysis of event.

Portfolio preparation; presentation and projection for work. Project report on visit to different types of organizational settings like hotel, guesthouse, hostel, small offices, clubs, fast food centres for management and organization of events. Project development,Project planning

Programme planning and execution. Event communication and sponsorship. Event accountancy .Event marketing and advertising. Live event management. Project preparation

Report presentation

Practical Exercises

Exercise No.	Title
1	Orienting students regarding event management
2	Identifying practical situations for event management
3	conceptualizing goal
4	Framing objectives
5	Planning a show
6	Organising and work scheduling of the show
7	Developing a show event with details
8	Understanding exhibit sales and promotion needs and types
9	Developing Exhibit sales and promotion plan
10	Attendance promotion schemes review
11	Presentation of ideas, concepts for promoting attendance
12	Understanding and enlisting types of contract
13	Developing a contract, procuring contract form samples
14	Contract negotiations
15	Enlisting Festivals and events and innovative organisation ideas
16	Organising Festivals (Diwali, religious ceremonies).
17	Demonstration of innovative organisation
18	Planning and organising a social gathering
19	Conducting a Social gathering(Formal, Informal)

20	Understanding the knack of conducting successful Conference/workshop/seminar/congress programming
21	Planning details of Conference/workshop/seminar/congress programming
22	Delegating duties and jobs
23	SWOT analysis of event
24	Portfolio types, collecting samples
25	Portfolio preparation
26	Presentation and projection for work
27	Project report on visit hotel, hostel.
28	Project report on visit to guesthouse
29	Project report on visit to small offices, clubs, and fast food centres for management and organization of events.
30	Project development
31	Project planning
32	Programme planning
33	Programme execution
34	Event communication
35	Event sponsorship
36	Event marketing
37	Event advertising
38	Event accountancy
39	Live event management planning
40	Live event management execution
41	Requirements of a project
42	Formats of projects
43	Developing an idea
44	Planning work layout and demands
45	Detailing of space, design, and placements
46	Preparing project profile
47	Project Presentation
48	Report presentation

Suggested Readings

1.Text Books

1. Kit, Potions, H.P. Bhuson. (1998). Festival and Special Event Management. IBM Cooperation, 60 Renfrew Drive, Suite 105, Markham, Ontario, Canada L3R0E1.
2. Allen Johny Festival and Special event Management 2nd John willey2002 Periodical Publ.
3. Chand, P.B. Tara Home Management and Housekeeping 1st ed. Common Wealth

2.Reference Books

1. Aditya, Suvarna. (2003). Event Management Development Institute. I.E.S. Management College. 4th Floor, 791, S.K.Marg, Opp. Lilavati Hospital, Bandra (W), Mumbai - 400 050.
2. National Institute of Event Management. Ground Floor, Nandavan Building, Corner of Vallabhbai Road and Ansari Road, Vile Parle (W), Mumbai.

3. Sulekha, Narayna. (2001). International Institute of Event Management. SNDT Women's University, Juhu Campus, Juhu Tara Road, Santacruz (W), Mumbai - 400 049.
4. Kaul, A. The effective presentation 2nd 2005 Multi, Book, GHY

3.e-Books

Event Management

[www.pdf drive.com/events management](#)

Event Management

[www.acebooks.com/producteventmanagement](#)

Event Management Resources

<https://institute of event management.com>

Event Planning

[www.eventmanagerblog.com](#)

Course No. RMCS 368	Title Entrepreneurship Development and Business Management
Credits 3 (2+1)	Semester VI

Theory

Development of entrepreneurship, motivational factors, social factors, environmental factors, characteristics of entrepreneurs, entrepreneurial attributes / competencies. Concept, need and importance of entrepreneurial development. Evolution of entrepreneurship, objectives of entrepreneurial activities, types of entrepreneurs, functions of entrepreneurs, importance of entrepreneurial development, and process of entrepreneurship development.

Infrastructure and support systems- Good policies, schemes for entrepreneurship development; role of financial institutions, and other agencies in entrepreneurship development. Steps involved in functioning of an enterprise. Selection of the product / services, selection of form of ownership; registration, selection of site, capital sources, acquisition of manufacturing know how, packaging and distribution. Planning of an enterprise, project identification, selection and formulation of project; project report preparation, Enterprise Management. Production management – product, levels of products, product mix, quality control, cost of production, production controls, Material management. Production management – raw material costing, inventory control. Personal management – manpower planning, labour turn over, wages / salaries. Financial management /accounting – funds, fixed capital and working capital, costing and pricing, long term planning and short term planning, book keeping, journal, ledger, subsidiary books, annual financial statement, taxation. Marketing management- market, types, marketing assistance, market strategies. Crisis management- raw material, production, leadership, market, finance, natural etc.

Practical

Visit to small scale industries. Interaction with successful entrepreneurs. Visit to financial institutions and support agencies. Preparation of project proposal for funding by different agencies

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Development of entrepreneurship, motivational factors.	4
2	Social factors, environmental factors, of entrepreneurs.	3
3	Characteristics of entrepreneurs and Entrepreneurial attributes / competencies	6
4	Concept of entrepreneurial development and need of entrepreneurial development:	5
5	Importance of entrepreneurial development	5
6	Evolution of entrepreneurship, objectives of entrepreneurial activities.	2
7	Types of entrepreneurs and Functions of entrepreneurs	5
8	Process of entrepreneurship development.	5
9	Infrastructure and support systems- Good policies and schemes for entrepreneurship development.	7
10	Role of financial institutions, and other agencies in entrepreneurship development.	3
11	Steps involved in functioning of an enterprise.	2
12	Selection of the product / services, selection of form of ownership.	3
13	Registration, selection of site, capital sources.	3
14	Acquisition of manufacturing know how, packaging and distribution.	2
15	packaging and distribution	2
16	Planning of an enterprise, project identification.	3
17	Selection and formulation of project.	2
18	Project report preparation, Enterprise Management.	3
19	Production management – product, levels of products	2
20	Product mix, quality control	3
21	Cost of production, production controls,	2
22	Material management	2
23	Production management – raw material costing, inventory control.	3
24	Personal management – manpower planning.	3
25	Labour turn over, wages / salaries.	2
26	Financial management /accounting – funds, fixed capital and working capital.	3
27	Costing and pricing.	2
28	Long term planning and short term planning.	3
29	Book keeping, journal. Ledger, subsidiary books	3
30	Annual financial statement, taxation.	3
31	Crisis management- raw material, production	2
32	Leadership, market, finance, etc.	2
	Total	100

Practical Exercises

Exercise No.	Title
1	Identifying small scale industries.
2	Preparing recording schedule for taking notes
3	Visit to small scale industries.
4	Compiling information of Small scale industries
5	Report writing on data collected for Small scale industries
2	Understanding and enlisting good characteristics of entrepreneurs
3	Preparing a schedule for interviewing entrepreneurs
4	Identifying successful entrepreneurs /Visiting MSSIDC
5	Interaction with successful entrepreneurs
6	Writing report/ case studies of successful entrepreneurs
7	Identifying and enlisting financial and support agencies
8	Visit to financial institutions and support agencies
9	Collection of data on varied schemes run by the Govt. and private agencies for funding entrepreneurs
10	Compilation of data
11	Report writing
12	Presentation of report on entrepreneurs
13	Understanding importance of project proposal for funding
14	Procuring formats and layouts for preparing project for funding
15	Visiting agencies for project proposal evaluation and completing the formalities
16	Finalising project proposal for funding by different agencies and presentation

Suggested Readings

1.Text Books

1. Vasant Desai. (2010). Small-scale Industries and Entrepreneurship. Himalaya Publishing House. PVT. LTD. Mumbai 400004.
2. Vasant Desai. (2011). Entrepreneurial Development Potential beyond Boundaries; Himalaya Publishing House PVT. LTD. Mumbai 400004.
3. Sagar Mondel and G. L. Ray (2009). The book of Entrepreneurship and Rural Development. Kalyani Publishers, New Delhi, 110002.
4. David H. Holt (2009). Entrepreneurship. New Venture creation. PHI Learning Private Limited, New Delhi 110001.

2.Reference Books

- 1.Larry Richman (2009). Project Management Step-By-Step. PHI Learning Private Limited, New Delhi 110001.
- 2.E. D. Setty (2009). A practical Handbook on training. Amol publications PVT. LTD., New Delhi, 110002.

3.e-Books

The Entrepreneurs Guide to Personal Finance

<https://www.moneymanagement.org> > ... > eBook

Entrepreneurship books

Bookboon.com/en/entrepreneurship

STUDENT READY PROGRAMME 40(0+40)

Course No. SRP 471 **Title Implant Training**
Credits 10 (0+10) **Semester VII**

Course No. SRP 472 **Title Rural Awareness Work Experience**
Credits 10 (0+10) **Semester VII**

Course No. SRP481 **Title Experiential Learning**
Credits 20(0+20) **Semester VIII**

DEPARTMENT OF FOOD SCIENCE AND NUTRITION

Course No. FSN 111 **Title Food Science and Processing**
Credits 3 (2+1) **Semester I**

Theory

Food groups, food guide pyramid and its importance, foods as a source of nutrients Objectives of cooking, processing, preservation, methods of cooking with their merits and demerits. Effect of cooking and heat on nutritive value of foods. Cereals and millets Composition and nutritive value, types, storage, processing. Cereal cookery. Gluten and factors affecting the gluten formation, cereal starch, gelatinization, dextrinisation. Pulse cookery. Effect of cooking, factors affecting cooking quality, toxic constituents in pulses. Nuts and oilseeds- Composition and nutritive value and role in cookery. Milk and milk products: Composition and nutritive value, properties, processing and packaging, effect of heat, acid, processed and indigenous milk products and their quality, role in cookery.

Eggs- Structure, composition and nutritive value, storage, evaluation of quality of egg, role of egg in cookery. Flesh foods- Structure, composition and nutritive value, types, storage, evaluation of quality and selection of meat, fish and poultry, methods of cooking, brief description of ageing, tenderization and curing. Vegetables and fruits. Composition and nutritive value, types, storage, selection, effect of processing, preservation and cooking on different pigments of both fruits and vegetables. Sugar, Composition and nutritive value, type, function, properties, stages in sugar cookery, role of sugar in cookery. Fat and oils Composition, nutritive value, role in cookery and importance in daily diet. Beverages and appetizers. Classification, use in everyday lives with special reference to tea and coffee,

Processed and convenience foods. Ready to eat foods, frozen foods, dehydrated foods, instant food mixes.

Practical

Knowledge of different food stuffs in English, Hindi and local language. Terms used in cookery, weights and measures; identification and use of different kitchen items and equipment's. Identification and listing of various food groups; market survey of processed and preserved foods. Cereal cookery. Preparation of plain rice (pressure cook), lime-rice, pulao, paratha, chapatti, upma and halwa. Pulse cookery. Preparation of plain dal, dal with green, pakoras, sambar. Preparation of cereal and pulse combined recipes- Idlis, dosa.. Nuts and oilseeds. Preparation of chikki, til ladoos, Milk cookery. Preparation of Shrikhand and paneer. Egg cookery. Selection of egg, preparation of boiled egg, scrambled egg, poached egg. Meat and fish cookery. Preparation of meat and fish based items. Fruits and vegetables cookery: Preparation of sauces, pickles, squash, chips. Sabjis and salad Sugar cookery. Process of caramalization; demonstration of 1-thread and 2-thread consistency. Fats and oils. Preparation puris, cakes and biscuits. Appetizers. Preparation of tea and coffee, egg nog. Visit to food industries.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1 & 2	Food groups, Food guide pyramid and its importance, Foods as a source of nutrients	7.5
3 & 4	Processing, preservation	7.5
5&6	Objectives of cooking, Methods of cooking with their merits and demerits	7.5
7	Effect of cooking and heat on nutritive value of foods.	2.5
8 to 10	Cereals and millets: Composition and nutritive value, types, storage and processing. Cereal cookery. Gluten and factors affecting the gluten formation, cereal starch, gelatinization, dextrinisation.	7.5
11 & 12	Pulse cookery: Effect of cooking, factors affecting cooking quality, toxic constituents in pulses.	7.5
13&14	Nuts and oilseeds: Composition and nutritive value and role in cookery.	7.5
15 to 17	Milk and milk products: Composition and nutritive value, properties, processing and packaging, effect of heat and acid. Processed and indigenous milk products and their quality, role in cookery.	7.5
18 to 20	Eggs: Structure, composition and nutritive value and storage. Evaluation of quality of egg, role of egg in cookery.	7.5
21&22	Flesh foods: Structure, composition and nutritive value. Types and storage. Evaluation of quality and selection of meat, fish and poultry, methods of cooking, brief description of ageing,	7.5

	tenderization and curing.	
23 to 25	Vegetables and fruits: Composition and nutritive value, types, storage, selection, effect of processing, preservation and cooking on different pigments of both fruits and vegetables.	7.5
26&27	Sugar: Composition and nutritive value, types, functions and properties. Stages in sugar cookery and role of sugar in cookery.	7.5
28 & 29	Fat and oils: Composition, nutritive value, role in cookery and importance in daily diet.	5
30 & 31	Beverages and Appetizers: Preparation of tea, coffee and egg nog.	7.5
32	Processed and convenience foods. Ready to eat foods, frozen foods, dehydrated foods and instant food mixes.	2.5
	Total	100

Practical Exercises

Exercise No.	Title
1	Knowledge of different food stuffs in English, Hindi and local language.
2	Terms used in cookery; identification and use of different kitchen items.
3	Weights and measures.
4	Market survey of processed and preserved foods.
5	Cereal cookery- Preparation of plain rice (pressure cook), lime-rice, pulao, paratha, chapatti, upma and halwa.
6	Pulse cookery - Preparation of plain dal, dal with green, pakoras and sambar.
7	Preparation of cereal and pulse combined recipes- Idli, dosa and uttapa.
8	Nuts and oilseeds- Preparation of chikki, til ladoos,
9	Milk cookery Preparation of Shrikhand and paneer.
10	Egg cookery. Selection of egg, preparation of boiled egg, scrambled egg and poached egg
11	Meat and fish cookery - Preparation of meat curry, kabab and fish curry, fried fish.
12	Fruits and vegetables cookery - Preparation of sauces, pickles, squash,
13	Preparation of chips. Sabjis and salad
14	Sugar cookery - Process of caramalization. Demonstration of 1-thread and 2-thread consistency of Sugar syrup .
15	Appetizers. Preparation of tea and coffee, egg nog.
16	Visit to food industries.

Suggested Readings

1. Text Books

1. Srilakshmi, B. (2008) Food Science, New Age International (P) Ltd Publishers, Mumbai.

2. Sumati R. Mudambi, Shalini M. Rao and M.V. Rajagopal (2006) Food Science Revised second edition New Age International (p) Ltd. Publication .New Dehli.
3. Shakuntala Manay N. and Shadaksharaswamy M. (2008) Foods: Facts and Principles. New Age International (P) Ltd Publishers, Mumbai.

2. Reference Books

1. Vijaya Khader (2001) Text book of Food Science and Technology Published by Indian council of Agricultural Research, New Delhi.
2. R. Rajalakshmi revised by K.K. Sakarish (2013) Applied Nutrition, Oxford & IBH Publishing Co.Pvt. Ltd. New Delhi.
3. Potter, N.N. (1996). Food Science. The AVI Publishing Company, Inc., Westport, Connecticut.

3.e-Books

1. Food Science -Authors: [Norman N. Potter](#), [Joseph H. Hotchkiss](#)

ISBN: 978-1-4613-7263-9 (Print) 978-1-4615-4985-7 (Online)

2. Introduction to Food Science and Technology

Authors: G.F. Stewart Maynard Amerine

e-Book ISBN: 9780323138598

Course No. FSN 122

Credits 3 (2+1)

Title Principles of Human Nutrition

Semester II

Theory

Historical development of nutrition. Relationship of nutrition to health, growth and human welfare; Definitions of terms used in nutrition- Recommended dietary allowances; balanced diet; health; functional food; phytochemicals; Nutraceuticals; dietary supplements of RDA.. Energy- Units, sources and requirements, fuel value of foods, methods of measuring energy value of food, energy requirement of body, physical activity and thermogenic effect of food, BMR- methods of measurement, factors affecting BMR. Digestion and absorption of carbohydrates, fats and proteins. Carbohydrates- Types, functions, sources, requirement, Deficiency conditions affected by carbohydrates, significance of dietary fibre. Lipids- Types, functions, sources, requirement, Proteins- types, functions, sources, requirement, deficiency disorders and protein energy malnutrition. Vitamins-

Classification, functions, sources, requirement, deficiency and toxicity of the following- (i) Fat soluble vitamins-A, D, E, K; (ii) Water soluble vitamins – C, B Complex (thiamine, riboflavin, niacin, and folic acid). Minerals- Classification, functions, sources, requirements, deficiency and toxicity of calcium, phosphorus, iodine, iron, sodium, potassium. Water, Functions, sources, distribution in body, water and electrolyte balance.

Practical

Serving size and number of servings of common dishes. Planning of nutrient rich dishes-protein, calcium, iron, vitamin A, riboflavin and ascorbic acid. Planning of low cost nutritious recipes.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Historical development of nutrition	5
2	Relationship of nutrition to health, growth and human welfare; Definitions of terms used in nutrition.	5
3&4	Recommended dietary allowances; balanced diet and health; functional foods; phytochemicals; nutraceuticals	7.5
5 to 8	Energy- Units, sources and requirements, fuel value of foods.	7.5
9 to 11	Methods of measuring energy value of food, energy requirement of body, physical activity and thermogenic effect of energy requirement of body, physical activity.	7.5
12 & 14	BMR- methods of measurement, factors affecting BMR.	7.5
15 to 17	Carbohydrates- Types, functions, sources, requirement, Digestion and absorption of carbohydrates. Deficiency conditions affected by carbohydrates, significance of dietary fibre.	10
18 & 19	Lipids- Types, functions, sources, requirement, Digestion and absorption of lipids.	7.5
20 to 22	Proteins- types, functions, sources, requirement, Digestion and absorption of Protein. Deficiency disorders and protein energy malnutrition.	8.75
23 to 25	Vitamins- Classification, functions, sources and requirement. Deficiency and toxicity of the following- (i) Fat soluble vitamins-A, D, E,K.	10
26 & 27	Water soluble vitamins – C, B Complex (thiamine, riboflavin, niacin and folic acid).	7.5
28 to 30	Minerals- Classification, functions, sources and requirements. Deficiency and toxicity of calcium, phosphorus, iodine, iron, sodium, potassium.	8.75
31&32	Water - Functions, sources. Distribution in body, water and electrolyte balance.	7.5
	Total	100

Practical Exercises

Exercise No.	Title
1	Serving size of different dishes.
2	Serving number of common dishes.
3	Planning of protein rich dishes from animal foods.
4	Planning of protein rich dishes from plant foods.
5	Planning of Calcium rich dishes from cereals, pulses and vegetables.
6	Planning of Calcium rich dishes from nuts and oil seeds, milk and milk products, meat and meat products.
7	Planning of Iron rich dishes from animal foods.
8	Planning of Iron rich dishes from plant foods.
9	Planning of Thiamine rich dishes from cereals, pulses and vegetables.
10	Planning of Thiamine rich dishes from nuts and oil seeds, milk and milk products, meat and meat products.
11	Planning of Riboflavin rich dishes from cereals, pulses and vegetables.
12	Planning of Riboflavin rich dishes from nuts and oil seeds, milk and milk products, meat and meat products.
13	Planning of Ascorbic acid rich dishes from fruits.
14	Planning of Ascorbic acid rich dishes from vegetables.
15	Planning of low cost nutritious recipes from cereal, pulses, vegetables and fruits.
16	Planning of low cost nutritious recipes from nuts and oil seeds, milk and milk products, meat and meat products.

Suggested Readings

1. Text books

1. Srilakshmi, B. (2008) Nutrition Science, New Age International Publication, Mumbai.
2. Corinne H. Robinson. () Text Book of Normal and Therapeutic Nutrition. Publication, Oxford & IBH Publishing Co. New York.
3. Agarwal, A and Udipi, S. (2014). Text Book of Human Nutrition. Jaypee Medical Publication, New Delhi.

2. Reference Books

1. Helen Andrews Guthrie (1975) Introductory Nutrition, Third Edition, The C. V. Mosby Company, London.
2. Mahtab S. Bamji, N. Pralhad Rao and Vinodini Reddy (1999) Text book of Human Nutrition, Oxford & IBH Publishing Co. Pvt. Ltd. New Dehli.
3. SIR Stanly Davidson, R. Passmore, J.F. Brock & A.S. Truswell (1975) Text Book of Human Nutrition & Dietetics, Publication Churchill Livingstone.

3.e-Books

1. Introduction to Human Nutrition-Hester H Vorster

<http://www.pdfdrive.com/introduction-to-human-nutrition-e8482943.html>

2. Principles of Human Nutrition (eBook, PDF)

http://www.buecher.de/shop/ernaehrungslehre/principles-of-human-nutrition-ebook-pdf/eastwood-martin/products_products/detail/prod_id/38280824/

3. Human Nutrition -**Authors:** Catherine Geissler Hilary Powers

eBook ISBN:9780702060885

eBook ISBN: 9780702044373

Course No. FSN 233

Title Food Standards and Quality Control

Credits 3 (2+1)

Semester III

Theory

Importance of quality control and assurance. Food laws and regulations. Prevention of Food Adulteration Act, Fruit Product Order, Agmark, Essential Commodity Act, Consumer Protection Act, Bureau of Indian Standards, Codex Standards. Specifications and application of food standards for raw materials and food products Food additives. Preservatives, coloring agents, antioxidants, emulsifying agents, leavening agents and stabilizing agents Various methods for the assessment of quality of different foods .Selection of sensory panel and sensory evaluation of food products. Food safety risks and hazards. Assessment and prevention of food adulteration. Food packaging and packaging material.

Practical

Threshold test, Sensory evaluation, Sensory and nutritional evaluation of some finished products. Detection of adulterants and preservatives in products. Sampling of milk and milk products for different tests, platform test, clot in boiling test (COB) test, alcohol test, sediment test, two minute Reasurian test.Determination of fat, acidity & specific gravity of milk.

Visit to milk processing plant and report writing.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Title	Weightage (%)
1	Importance of quality control and assurance.	5
2	Food laws and regulations.	5
3 & 4	Fruit Product Order and Agmark.	5
5,6,7 & 8	Prevention of Food Adulteration Act, Essential Commodity Act, Consumer Protection Act.	7.5
9 & 10	Bureau of Indian Standards, Codex Standards.	5
11 & 12	Specifications and application of food standards for raw materials and food products.	7.5
13	Food additives.	5
14 & 15	Preservatives, colouring agents.	7.5

16 & 17	Antioxidants.	7.5
18	Emulsifying agents, leavening agents and stabilizing agents .	5
19&20	Various methods for the assessment of quality of different foods.	7.5
21 to 25	Selection of sensory panel and sensory evaluation of food products.	10
26 & 27	Food safety; Risks and hazards.	5
28 & 29	Assessment and prevention of food adulteration.	7.5
30 to 32	Food packaging and packaging materials.	10
	Total	100

Practical Exercises

Exercise No.	Title
1	Threshold test.
2	Sensory evaluation.
3	Sensory evaluation of prepared products.
4	Nutritional evaluation of prepared products.
5	Method of detection of adulteration.
6	Detection of adulterants and preservatives in products.
7	Preparation of reagents and cleaning of glassware.
8	Sampling of milk and milk products for different tests.
9	Platform test and Clot in boiling test (COB).
10	Alcohol test, Sediment test and Two minute Reasurian test.
11	Determination of fat of milk.
12	Determination of acidity of milk.
13	Determination of specific gravity of milk
14	Formula, Calculation and comparison of values with standards.
15	Visit to milk processing plant.
16	Report writing.

Suggested Readings

1.Text Books

1. Swaminathan, M. (1999). Food Science, Chemistry and Experimental Foods. 2nded. The Bangalore Printing and Publishing Co., Bangalore.

2. Maney, N.S. and Shadaksharswamy, M. (1996). Food Facts and Principles. 2nded. New Age International Pvt. Limited, New Delhi.
3. Kalia, M. and Sood, S. (2010). Food Preservation and Processing. Revised Edn. Kalyani Publishers, New Delhi

2. Reference Books

1. Potter, N.N. (1996). Food Science. The AVI Publishing Company Inc., Westport, Connecticut.
2. Jellinek, G. (1985). Sensory Evaluation of Foods: Theory and Practice. Ellis Horwood Ltd. Chichester, England.
3. Manual of Food Standards and Quality Control. (2014). Dept. of Foods and Nutrition, CCS HAU, Hisar.

3.e-Books

1. Food Quality Assurance: Principles and Practices

Author: Inteaz Alli

ISBN 9781566769303

2. E-Book-in-PDF-on-Food-Laws--CD-ILBCO-INDIA (Version 2.1)

3. http://supremecourtcaselaw.com/Food_Safety_Standards_Act_Rules_Regulations.htm

Course No. FSN 234

Title Food Preservation and Storage

Credits 2(0+2)

Semester III

Practical

Preservation, Principles of preservation Market survey of raw and preserved foods. Preparation of preserved products. Squash, cordial, crush, jams, jellies, marmalade, candy, preserves, murabbas, pickles with and without oil, chutneys, ketchup, sauces, candies, toffees and syrup. Shelf life and sensory evaluation of developed products. Demonstration on canning and bottling of fruits and vegetables. Visits to food processing and preservation units.

Practical Exercises

Exercise No.	Title
1	Principles of food preservation.
2	Market survey of raw and preserved foods.
3	Preparation of Squash.
4	Preparation of cordial.
5	Preparation of crush.
6	Preparation of jams (Apple).
7	Preparation of jams (mix fruit jam).

8	Preparation of jellies (Guava).
9	Preparation of jellies (Apple).
10	Preparation of marmalade (orange).
11	Preparation of candy (Amla).
12	Preparation of candy (Papaya).
13	Preparation of preserve (Fruits).
14	Preparation of preserve (Vegetable).
15	Preparation of murabbas (Amla).
16	Preparation of murabbas (Mango).
17	Preparation of pickles with oil (Tomato).
18	Preparation of pickles with oil (Tamarind).
19	Preparation of pickles with oil (Mango).
20	Preparation of pickles with oil (Lime and green chilli).
21	Preparation of pickles without oil (Bitter gourd).
22	Preparation of chutneys (Tomato).
23	Preparation of chutneys (Tamarind).
24	Preparation of sauces (Tomato).
25	Preparation of sauces (green chilli).
26	Preparation of Toffes (Milk).
27	Preparation of paneer.
28	Preparation of syrups from citrus fruits.
29	Shelf life of developed products.
30	Sensory evaluation of developed products.
31	Demonstration of canning and bottling of fruits and vegetables.
32	Visit to food processing and preservation units.

Suggested Readings

1.Text Books

1. Khadder V., (1999), Text book of Food, Storage and Preservation. Kalyani Publishers, New Delhi.
2. Kalia, M. and Sood, S. (2010). Food Preservation and Processing. Revised Edition, Kalyani Publishers, New Delhi.
3. Girdhari Lal, G.S. Siddappa and G.L. Tandon (1959) ICAR publication, New Delhi.

2.Reference Books

1. Jood, S. and Khetarpaul, N. (2002). Food Preservation. Geeta Somani Agrotech Publishing Academy, Udaipur.
2. Sivasankar, B. (2002). Food Processing and Preservation. PHI Learning Pvt. Ltd. Delhi.

3. Sehgal, S., Grewal, R.B., Kawatra, A. and Kaur, Y. (1997). Practical Aspects of Food Preservation. Directorate of Publications. Haryana Agricultural University, Hisar.

3.e-Books

1. Food Preservation & Storage at Home - A Step by Step Guide to Canning, Pickling, Dehydrating, Freezing & Safely Storing Food for Later Use Kindle Edition

by [Susan Burnetter](#) (Author)

<https://7rqmz5.files.wordpress.com/2017/02/ebook-b00fmabdrm-food-preservation-storage-home-dehydrating-ebook.pdf>

2. Handbook of Food Preservation

AUTHOR: SHAFIUR REHMAN

<https://7rqmz5.files.wordpress.com/.../ebook-b00fmabdrm-food-preservation-st>

Course No. FSN 245

Title Normal Nutrition

Credits 2 (1+1)

Semester IV

Theory

Determination of nutritional requirements: Recommended dietary allowance, calorie consumption unit. Food exchange list method: Cereals, pulses, fruits and vegetables, milk and milk product, Nuts and oil seed, condiments and spices, fishes and other sea foods, meat and meat product and poultry.

Maternal nutrition : Nutrition during pregnancy : Physiological changes(gastrointestinal changes, placenta, Hormonal changes, Blood Volume) and nutritional requirements during pregnancy. Nutrition during lactation : Physiological changes and nutritional requirements during lactation. Nutrition during infancy : Growth, development and nutritional requirement, importance of breast feeding, weaning and supplementary foods.

Nutrition for pre schoolchildren: Growth and development, food habits and nutritional requirements.

Nutrition for School age children : Growth and development, food habits and nutritional requirements. Nutrition during adolescence : Growth and development, food habits and nutritional requirements. Geriatric nutrition: Physiological and psychological changes during old age, nutritional requirements and consideration for diet planning.

Practical

Standardization of serving size portions – cereals and pulses, fruits and vegetables, milk and milk products. Planning of diets for Infancy, preschool age, school age, adolescence. Planning of cost

effective diets for adults - sedentary working, moderate and heavy working. Planning of diets for old age, pregnant and lactating women. Planning of diets for special occasion – birthdays, festivals. Planning of packed lunches

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Determination of nutritional requirements: Recommended dietary allowance, calorie consumption unit	10
2	Factors affecting meal planning	10
3 & 4	Maternal nutrition : Nutrition during pregnancy: Physiological changes (gastrointestinal changes, placenta, Hormonal changes, Blood Volume) and nutritional requirements during pregnancy	15
5& 6	Nutrition during lactation : Physiological changes and nutritional requirements during lactation.	15
7 & 8	Nutrition during infancy :Growth, development and nutritional requirement, importance of breast feeding, weaning and supplementary foods.	15
9 & 10	Nutrition for pre schoolchildren: Growth and development, food habits and nutritional requirements	10
11	Nutrition for School age children : Growth and development, food habits and nutritional requirements.	10
12 & 13	Nutrition during adolescence :Growth and development, food habits and nutritional requirements.	10
14 &15	Geriatric nutrition: Physiological and psychological changes during old age, nutritional requirements and consideration for diet planning.	20
16	Meal planning for special occasions.	10
	Total	100

Practical Exercises

Exercise No.	Title
1	Standardization of serving size portions – cereals and pulses.
2	Standardization of serving size portions – fruits and vegetables.
3	Standardization of serving size portions – milk and milk products.
4	Planning of diets for Infancy.
5	Planning of diets for preschool age.
6	Planning of diets for school age.
7	Planning of diets for adolescence.
8	Planning of cost effective diets for adults - sedentary working.
9	Planning of cost effective diets for adults – moderate working.

10	Planning of cost effective diets for adults – heavy working.
11	Planning of diets for old age.
12	Planning of diets for pregnant women.
13	Planning of diets for lactating women.
14	Planning of diets for special occasion - birthdays.
15	Planning of diets for special occasion s- festivals.
16	Planning of packed lunches.

Suggested Readings

1. Text Books

1. Corinne H. Robinson. (1977) Text Book of Normal and Therapeutic Nutrition Publication, Oxford & IBH Publishing Co, New York, USA and New Delhi
2. Swaminathen M. (1990) Essentials of Food and Nutrition. Bangalore Printing and Publishing Co. Ltd, Bangalore
3. Helen Andrews Guthrie (1975) Introductory Nutrition, Third Edition, The C. V. Mosby Company, London.
4. B. Srilaxmi (2014) Dietetics, 7th Edi. New Age International Publication, Mumbai.
5. Dr. Shanti Ghosh (1992) The Feeding and Care of Infants and Young Children. 6th Edition, Voluntary Health Association of India, New Delhi.

2. Reference Books

1. Raghuvanshi, R.S. and Mittal, M. (2014). Food Nutrition and Diet Therapy. Westvills Publication, Delhi.
2. Agarwal, A and Udipi, S. (2014). Text Book of Human Nutrition. Jaypee Medical Publication, Delhi.
3. Sumati R. Mudambi and M.V. Rajagopal (2005). Fundamentals of Foods and Nutrition, 4th edition, New Age International (p) Ltd. Publication, New Delhi.

3.e-Books

1. Understanding Nutrition Eleanor Nhttps://books.google.co.in/books/about/Understanding_Nutrition.html?id=OQgLAAAAQBAJ&redir_esc=yoss Whitney, Sharon Rady Rolfes
2. Krause's Food & the Nutrition Care Process, 13th Edition
By L. Kathleen Mahan, MS, RD, CDE, Janice L Raymond, MS, RD, CD and Sylvia Escott-Stump, MA, RD, LDN
<https://evolve.elsevier.com/cs/product/9781437722338>

Course No. FSN 356

Title Therapeutic Nutrition

Credits 3 (2+1)

Semester V

Theory

Importance and scope of diet therapy. Modification of normal diet to therapeutic diets

Methods of feeding - Normal (clear fluid diet, full fluid diet and soft diet) and artificial(enteral and parenteral feeding methods). Fever : Aetiology, symptoms and dietary management in acute and chronic fevers- Typhoid, influenza, tuberculosis.Gastrointestinal disorders: Aetiology, symptoms and dietary management in gastrointestinal disorders - Diarrhoea, constipation, peptic ulcer. Liver diseases : Aetiology, symptoms and dietary management in liver diseases - Hepatitis, jaundice, cirrhosis of liver. Cardiovascular disease: Aetiology, symptoms and dietary management in cardiovascular disease - Atherosclerosis and hypertension. Diabetes mellitus : Aetiology, symptoms and dietary management. Problems of weight control : Overweight and obesity, dietetic management and prevention.

Practical

Planning of diets for following diseased condition - diarrhea, constipation, fever, hepatitis, hypertension, diabetes mellitus, overweight / obesity, under weight.

Teaching schedule-Theory with weightages(%)

Lecture No.	Topics	Weightage (%)
1, 2	Importance and scope of diet therapy	7.5
3,4	Modification of normal diet to therapeutic diets	7.5
5 to 7	Diet based on consistency :Normal (clear fluid diet, full fluid diet and soft diet) Methods of feeding : Normal and artificial (enteral and parenteral feeding methods).	10
8 to 12	Fever :Aetiology, symptoms and dietary management in acute and chronic fevers – Typhoid, influenza, tuberculosis.	15
13 to 16	Gastrointestinal disorders: Aetiology, symptoms and dietary management in gastrointestinal disorders – Diarrhoea, constipation, peptic ulcer.	15
17 to 20	Liver diseases : Aetiology, symptoms and dietary management in liver diseases – Hepatitis, jaundice, cirrhosis of liver.	11.25
21 to 25	Cardiovascular disease: Aetiology, symptoms and dietary management in cardiovascular disease – Atherosclerosis and hypertension.	11.25
26 to30	Diabetes mellitus : Aetiology, symptoms and dietary management.	10
31 to 32	Problems of weight control : Overweight and obesity,	10

	dietetic management and prevention.	
	Total	100

Practical Exercises

Exercise No.	Title
1	Planning of liquid diet.
2	Planning of diet for a person suffering with diarrhoea – liquid diets.
3	Planning of soft diet.
4	Planning of diet for a person suffering with peptic ulcer.
5	Planning of diet for a person suffering with constipation.
6	Planning of diet for a person suffering with fever.
7	Planning of diet for a person suffering with tuberculosis.
8	Planning of diet for a person suffering with liver diseases.
9	Planning of diet for a person suffering with hepatitis.
10	Planning of diet for a person suffering with heart diseases.
11	Planning of diet for a person suffering with hypertension.
12	Planning of diet by using low glycaemic index foods.
13	Planning of diet for a person suffering with diabetes mellitus.
14	Planning of diet for the overweight.
15	Planning of diet for the obese person.
16	Planning of diet for the under weight person.

Suggested Readings

1. Text Books

1. Corinne H. Robinson. () Text Book of Normal and Therapeutic Nutrition. Publication, Oxford & IBH Publishing Co. New York
2. SIR Stanly Davidson, R. Passmore, J.F. Brock & A.S. Truswell (1975) Text Book of Human Nutrition & Dietetics, Publication Churchill Livingstone
3. Srilaxmi B. (2014) Dietetics 7th Edition .New Age Publication, Mumbai.
4. Raghuvanshi, R.S. and Mittal, M. (2014). Food Nutrition and Diet Therapy. Westvills Publication, Delhi.
5. Agarwal, A and Udipi, S. (2014). Text Book of Human Nutrition. Jaypee Medical Publication, NewDelhi.

2. Reference Books

1. Subangini A. Joshi (2010) . Text Book of Nutrition and Dietetics. Megraw Hill Education (India) Private Limited

2. Vishwanth M. Sardesai (2003). Text Book of Introduction To Clinical Nutrition Publication, Marcel Dekker, Newyork.
3. Dr. A.V.S.S. Rama Rao (2006).Text Book of Biochemistry Publication, USB Pabliher's Distrbutors Pvt. Ltd.

3.e-Books

1. Community Nutrition For Developing Countries PDF, ePub eBook
https://www.google.co.in/?gfe_rd=cr&ei=HPWzWLD_EM708we0hYU4&gws_rd=ssl#q=E+BOOK+ON++COMMUNITY+NUTRITION++AND+EDUCATION+PDF&*

2. Nutritional Problems and Intervention Strategies in India

https://www.researchgate.net/publication/266970826_Nutritional_Problems_and_Intervention_Strategies_in_India

Course No. FSN 367	Title Food Analysis
Credits 3 (1+2)	Semester VI

Theory

Sampling and sampling techniques. . Principles and methods of food analysis- Moisture, ash, crude fat, crude fibre, crude protein and carbohydrates by difference. Basic principles- Refractometry, polarimetry, densitometry, HPLC, GLC, spectrophotometry, electrophoresis, automatic amino acid analyzer. Bioassays for protein quality of grains Chemical, microbiological. Flurometric and colorimetric methods of analysis of fat soluble and water soluble vitamins Principles and methods for estimation of minerals. Atomic absorption spectroscopy, colorimetric, titrimetric and gravimetric methods .

Practical

Safety hats to be followed in the biochemistry laboratory . Introduction of glassware used in the laboratory. Introduction of equipment used in the laboratory . Preparation of different normality solution. Proximate analysis: Moisture, ash, crude fat, crude fibre, crude protein and carbohydrate by difference. Demonstration of kjelplus, , sox-plus. Estimation of reducing and non-reducing sugars. Estimation of starch content of cereals. Determination of iodine value and saponification number .Estimation of minerals, iron and, calcium. Estimation of Ascorbic acid.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Sampling and sampling techniques.	12.5

2&3	Principles and methods of proximate analysis, Moisture and ash.	10
4 & 5	Crude fat and Crude fibre.	10
6& 7	Crude protein and carbohydrates by difference method.	10
8 & 9	Basic principles of Refractometry, Polarimetry and Densitometry.	10
10	HPLC, GLC spectrophotometry and electrophoresis. Automatic amino acid analyzer.	15
11	Bioassays for protein quality of grains Chemical and microbiological.	10
12&13	Fluorometric and colorimetric methods of analysis of fat soluble and water soluble vitamins.	10
14&15	Principles and methods for estimation of minerals-Atomic absorption spectroscopy	5
16	Colorimetric titrimetric and gravimetric methods.	7.5
	Total	100

Practical Exercises

Exercise No.	Title
1	Safety hats to be followed in the biochemistry laboratory.
2	Introduction of glassware used in the laboratory.
3	Introduction of equipment used in the laboratory.
4	Tips to followed while preparation of reagents.
5	Collection of distilled water.
6	Preparation of different normality solution.
7	Procedure of moisture content.
8	Determination of moisture content.
9	Procedure of crude fat.
10	Estimation of crude fat.
11	Procedure of crude fibre .
12	Estimation of crude fibre.
13	Procedure of protein.
14	Estimation of protein.
15	Procedure of ash.
16	Estimation of ash.
17	Procedure of carbohydrate.
18	Calculation of carbohydrate content.

19	Demonstration of kjelplus.
20	Demonstration of sox-plus.
21	Procedure of reducing and non-reducing sugars.
22	Estimation of reducing sugars.
23	Estimation of non-reducing sugars.
24	Estimation of starch content of cereals.
25	Procedure of iodine value and saponification number of fats.
26	Determination of iodine value and saponification number of fats.
27	Procedure and reagent preparation of iron estimation.
28	Estimation of iron.
29	Procedure and reagent preparation of calcium.
30	Estimation of calcium.
31	Procedure and reagent preparation of Ascorbic acid.
32	Estimation of. Ascorbic acid.

Suggested Readings

1.Text Books

1. AOAC. (2000). Association of Official Analytical Chemists. Washington, DC.
2. Pearson, D. (1973). Laboratory Techniques in Food Analysis. Butterworths and Co., London.
3. Pomeranz and Yeshajahu. (1987). Food Analysis Theory and Practice. 2nd ed. AVI Publ.Company, Westport.
4. Joslyn, M.A. (1970). Methods in Food Analysis: Physical, Chemical and Instrumental Methods of Analysis. Academic Press. New York

2.Reference Books

1. NIN. (2003). A Manual of Laboratory Techniques.
2. Syed H. M., Syed Ismail , Deshpande H.W., Kulkarni K.D. and kulkarni. D. N. (2007) Methods in Food Analysis - Chemical Instrumental and Sensory, MAU Publication , Parbhani .
3. A .G .Woodman (2012), Food Analysis, Typical Methods and the Interpretation of Results, 4th Edition

3.e-Books

1. Food Analysis

Authors:[Dr. S. Suzanne Nielsen](#)

ISBN: 978-1-4419-1477-4 (Print) 978-1-4419-1478-1 (Online)

2. Handbook of Food Analysis, Third Edition - Two Volume Set

Leo M.L. Nollet, Fidel Toldra

ISBN 9781466556546 - CAT# K15423

<http://link.springer.com/book/10.1007%2F978-1-4419-1478-1>

3. Methods in Food Analysis

Rui M. S. Cruz, Igor Khmelinskii, Margarida Vieira

ISBN 9781482231953 - CAT# K22828

<https://www.crcpress.com/Methods-in-Food-Analysis/Cruz-Khmelinskii-Vieira/p/book/9781482231953>

Course No. FSN 368 Title Community Nutrition and Education

Credits 3 (2+1) Semester VI

Theory

Assessment of nutritional status. Clinical signs and symptoms, nutritional anthropometry, biochemical tests, biophysical tests, diet survey methods. Major nutritional problems prevalent in India and state. Protein energy malnutrition, anaemia, vitamin A deficiency, iodine deficiency disorders, National programmes and role of national and international agencies. In improving nutritional status of the community. Integrated Child Development Service (ICDS), supplementary Nutrition Program (SNP), Vitamin A Prophylaxis Program, Anaemia Prophylaxis Programme. Food and Agricultural Organization (FAO), World Health Organization (WHO), United Nations Children's Fund (UNICEF), Other Voluntary and Government Agencies. Nutrition education- Objectives, principles and methods, principles.

Practical

Assessment of nutritional status of an individual/community using anthropometry and dietary survey. A) Preparation of schedule B) Survey work C) Analysis of data D) Writing of report. Visit to local health centre to identify clinical signs and symptoms of nutritional problems. Visit to an ICDS Block. Development of audio visual aids- radio script; popular article; chart/posters leaflets etc. Planning, implementation and evaluation of nutrition education for a target group.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Assessment of nutritional status.	2.5
2 & 3	Clinical signs and symptoms.	3.75
4 & 5	Nutritional anthropometry.	5
6	Biochemical tests and biophysical tests.	5
7, 8&9	Diet survey methods.	5
10 & 11	Major nutritional problems prevalent in India and State. Protein energy malnutrition.	5

12&13	Anaemia.	5
14	Vitamin A deficiency.	5
15	Iodine deficiency disorders.	5
16 & 17	National programmes and role of national and international agencies. In improving nutritional status of the community.	7.5
18	Integrated Child Development Service (ICDS)	2.5
19 & 20	Supplementary Nutrition Program (SNP)	5
21 & 22	Vitamin A Prophylaxis Program	7.5
23 & 24	Anaemia Prophylaxis Programme	7.5
25	Food and Agricultural Organization (FAO)	3.75
26	World Health Organization (WHO),	3.75
27	United Nations Children's Fund (UNICEF)	3.75
28 to 30	Other Voluntary and Government Agencies	10
31 & 32	Nutrition education- Objectives, principles and methods.	7.5
	Total	100

Practical Exercises

Exercise No.	Title
1	Assessment of nutritional status of an individual/community using anthropometry and dietary survey.
2	Preparation of schedule.
3	Survey work .
4	Technique of anthropometric measurements.
5	Clinical Signs and symptoms of deficiency diseases.
6	Methods of diet survey.
7	Compilation of data.
8	Analysis of data and report writing.
9	Visit to local health centre to identify clinical signs and symptoms of Nutritional problems.
10	Visit to an ICDS Block.
11	Report writing.
12	Development of audio visual aids- radio script.
13	Development of audio visual aids and popular article.
14	Development of audio visual aids chart/posters.
15	Development of audio visual aids- leaflets etc.
16	Planning, implementation and evaluation of nutrition education for a target group.

Suggested Readings

1.Text Books

1. Sehgal, S. and Raghuvanshi, R.S. (2007) Text Book of Community Nutrition. ICAR, New Delhi.
2. Jelliff D B. (1966). The assessment of the nutritional status of the community .WHO Monograph No. 53, World Health Organization, Geneva.

3. Lohman TG, Roche AF, Martorell R (1998) Anthropometric Standardization Reference Manual, Human Kinetics Books. Champagne, Illinois.

2. Reference Books

1. Buk M C, pao E M. (1976). Methodology For Large Scale Surveys of Households. Home Economics Research Report No.40, US Departments of Agriculture, Washington D.C.
2. Timmayamma and Rao P. Dietary Assessment As Part of Nutritional Status- Textbook of Human Nutrition. Oxford & IBH publishing Co. pvt. Ltd., New Delhi.
3. Swaminathen M. (1990) Essentials of Food and Nutrition. Bangalore Printing and Publishing Co. Ltd, Bangalore

3.e-Books

1. Therapeutic Nutrition A practical guide by Authors: Dr C. R. Pennington
ISBN: 978-0-412-29230-9 (Print) 978-1-4899-7108-1 (Online)
2. Normal and Therapeutic Nutrition
Corinne Hogden Robinson
https://books.google.co.in/books/about/Normal_and_Therapeutic_Nutrition.html?id=LuxsAAAAMA_AJ&redir_esc=y

STUDENT READY PROGRAMME 40(0+40)

Course No. SRP 471	Title Implant Training
Credits 10 (0+10)	Semester VII
Course No. SRP 472	Title Rural Awareness Work Experience
Credits 10 (0+10)	Semester VII
Course No. SRP 481	Title Experiential Learning
Credits 20(0+20)	Semester VIII

DEPARTMENT OF TEXTILES AND APPAREL DESIGNING

Course No. TAD 111	Title Fundamentals of Clothing Construction
Credits 3(1+2)	Semester I

Theory

Terminology related to clothing construction. Sewing tools and equipment required for measuring, drafting, cutting and stitching. Sewing machine its parts and functions. Solving common machine problems. Selection and preparation of fabric for garment construction Layout of paper pattern, marking, cutting and stay stitching Unit construction method Importance and function of clothes Socio- economic and psychological factors affecting clothing choices Consumer behavior and motivation Clothing requirements of different age groups: infant, toddler, pre-school, school age children, teenager, adolescent, adult and senior citizen Application of elements and principles of art in apparel designing.

Practical

Demonstration on: Sewing equipment and tools, sewing machine and its care. Preparation of samples: Hand stitches; basting, slip-stitching, hemming, smocking, over casting, attaching fastener and button holing, mending and patching Machine stitches; seam and seam finishes, pleats, gathers and tucks, stay stitch, under stitching, placket opening Demonstration on taking body measurements Preparation of fabric for cutting, and layout of paper pattern on different fabrics patterns including plain, print, lines, plaid and check. Drafting, cutting and stitching of different garments: Baby frock, Panty, Bloomer, Blouse

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1 &2	Terminology related to clothing construction	10
3	Sewing tools and equipments required for measuring, drafting, cutting and stitching	10
4	Sewing machine its parts and functions	10
5	Solving common machine problems	10
6	Selection and preparation of fabric for garment construction	10
7	Layout of paper pattern, marking, cutting and stay stitching. Unit construction.	10
8	Importance and functions of clothes	10
9 & 10	Socio-economic and psychological factors affecting clothing choices	10
11 & 14	Consumer behaviour and motivation. Clothing requirements of different age groups: infant, toddler, pre-school, school-age children, teenager, adolescent, adult and senior citizen	10
15 &16	Application of elements and principles of art in apparel designing	10
16	Total	100

Practical Exercises

Exercise no.	Title
1.	Demonstration on: Sewing equipments and tools
2.	Demonstration on sewing machine and its care
3.	Practice of operating sewing machine
4.	Practice of operating sewing machine
5.	Preparation of samples: Hand stitches; basting
6.	Preparation of samples: Hand stitches slip-stitching, hemming
7.	Preparation of samples: Hand stitches; smocking
8.	Preparation of samples: Hand stitches; smocking, over casting
9.	Preparation of samples: attaching fastener and button holing
10.	Mending

11.	Patching
12.	Machine stitches; Types of seams
13.	Seam finishes
14.	Different types of Pleats
15.	Different types of Tucks and gathers
16.	Stay stitch, under stitching
17.	Placket opening
18	Demonstration on taking body measurements
19	Preparation of fabric for cutting
20	Layout of paper pattern on different fabrics patterns including plain, print, lines, plaid and check.
21	Drafting of Baby frock and cutting of Baby frock
22	Stitching and finishing of Baby frock
23	Drafting of Panty
24	Cutting of Panty
25	Stitching of Panty
26	Drafting of Bloomer
27	Cutting of bloomer
28	Stitching of bloomer
29	Drafting of blouse
30	Cutting of blouse
31	Stitching of blouse
32	Finishing of blouse

Suggested Readings

1.Text books

1. Kefgen, M. and Phyllis, T.S. 1971. Individuality in Clothing Selection and Personal Appearance. New York. The Macmillan Company
2. Tate, M.T. and Glisson, O. 1961. Family Clothing. New York. John Wiley and Sons.
3. Sannapamma, K.J. and Jahan, S. TXAD111-Fundamentals of Clothing Construction. ecourse.iasri.res.in.

2.Reference Books

1. Doongaji, S. and Deshpande, R. Basic Processes and Clothing Construction. 2nded. New Delhi. New Raj Book Depot.
2. Erwin, M.D. *et.al.* 1979. Clothing for Moderns. 6thed. New York. Macmillan Publishing
3. Lewis, V.S. 1979. Comparative Clothing Construction Techniques. Minnesota. Burgess Publishing Company.
4. Mansfield, E.A. and Lucas, E.L. 1974. Clothing Construction. 2nd ed. London. Houghton Mifflin Company.
5. Sodhia, M. 2004. Advanced drafting and draping. New Delhi. Kalyani Publisher.

6. Rosencranz, M.I. 1972. Clothing Concepts- A Social and Psychological Approach. New York. The Macmillan Company Ltd.

3.e-Books

1. www.crafsy.com
2. www.chestofbooks.com

Course No. TAD 122

Credits 3(2+1)

Title Textile Science and Fabric Care

Semester II

Theory

Textile: definition, forms of textile, importance of textile industry in national economy Classification of textile fibres Properties of textile fibres; primary and secondary properties Molecular structure of textile fibres: Monomers, polymers and their types, polymerization and its types, degree of polymerization and orientation Cotton: Fibre production, fibre varieties and their grading ,fibre morphology, physical, chemical and biological properties and end-uses Bastfibres: Flax, jute, hemp and ramie; Fibre production, fibre morphology, physical, chemical and biological properties and end-uses Other bastfibres (ramie, jute, hemp): Fibre production, fibre morphology and physical, chemical and biological properties and end-uses Wool: Fibre production, classification of wool and their labeling, fibre morphology, physical, chemical and biological properties and end-uses Silk: Fibre production and classification, fibre morphology, physical, chemical and biological properties and end-uses Chemical spinning: Wet, melt and dry spinning and common properties of man-made fibres Rayons: Viscose, cupramonium and High Wet Modulus rayons; fibre manufacturing, microscopic structure, physical, chemical and biological properties and end-uses Modified cellulosic fibres: Diacetate and triacetate; fibre manufacturing, fibre microscopic structure, physical, chemical and biological properties and end-uses Synthetic fibres: Nylon, polyester and acrylic; fibre manufacturing, fibre microscopic structure, physical, chemical and biological properties and end-uses Mechanical spinning: Ring spinning method Classification of yarn on the basis of structure- simple and novelty yarns, twist direction, twist amount, fibre length and end-uses Methods of fabric construction: Weaving, knitting, braiding, tufting, net, lace making, crocheting, macramé, stitch through fabrics, quilted fabrics, laminated fabrics, bonded fabrics, felt, nonwoven and films Stain removal: Classification of stains and methods of removing different stains Laundry: Definition, principles, equipments, laundry methods and dry cleaning Laundry agents: Water, soap, laundry auxiliary, stiffening agents, bleaches and blues Care of textiles: Labeling and labeling Act Labels

and tags used in textiles Storage of clothes: Requirements of short term and long term storage, folding and packaging of clothes

Practical

Testing of textile fibres Microscopic view Burning test Solubility test Visual test Study and identification of different types of yarns in the market Study and identification of fabric samples of different construction in the market and thread count Removal of different stains from fabric surface Washing and finishing of garments made of following fibres: Cotton, Wool, Silk, Blends/ synthetic Visit to textile industry.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Textile: definition, forms of textile, importance of textile industry in national economy	2.5
2	Classification of textile fibres	5
3 and 4	Properties of textile fibres; primary and secondary properties	5
5 and 6	Cotton: Fibre production, fibre varieties and their grading ,fibre morphology, physical, chemical and biological properties and end-uses	7.5
7 and 8	Bast fibres: Flax, jute, hemp and ramie; Fibre production, fibre morphology, physical, chemical and biological properties and end-uses	2.5
9	Other bastfibres (ramie, jute, hemp): Fibre production, fibre morphology and physical, chemical and biological properties and end-uses	5
10 and 11	Wool: Fibre production, classification of wool and their labeling, fibre morphology, physical, chemical and biological properties and end-uses	7.5
12 and 13	Silk: Fibre production and classification, fibre morphology, physical, chemical and biological properties and end-uses	5
14	Chemical spinning: Wet, melt and dry spinning and common properties of man-made fibres	2.5
15 and 16	Rayons: Viscose, cupramonium and High Wet Modulus rayons; fibre manufacturing, microscopic structure, physical, chemical and biological properties and end-uses	5
17	Modified cellulosic fibres: Diacetate and triacetate; fibre manufacturing, fibre microscopic structure, physical, chemical and biological properties and end-uses	5
18,19 and 20	Synthetic fibres: Nylon, polyester and acrylic; fibre manufacturing, fibre microscopic structure, physical, chemical and biological properties and end-uses	7.5
21 and 22	Classification of yarn on the basis of structure- simple and novelty yarns, twist direction, twist amount, fibre length and end-uses	5
23	Methods of fabric construction: Weaving, knitting, braiding, tufting, net, lace making, crocheting, macramé, stitch through fabrics, quilted fabrics,	5

	laminated fabrics, bonded fabrics, felt, nonwoven and films	
24 and 25	Stain removal: Classification of stains and methods of removing different stains	5
26	Laundry: Definition, principles, equipments, laundry methods and dry cleaning	5
27 and 28	Laundry agents: Water, soap, laundry auxiliary,	5
29 and 30	Stiffening agents, bleaches and blues	7.5
31	Care of textiles: Labeling and labeling Act Labels and tags used in textiles	2.5
32	Storage of clothes: Requirements of short term and long term storage, folding and packaging of clothes	5
	Total	100

Practical Exercises

Exercise No.	Title
1	Testing of textile fibres by Microscopic view
2	Testing of textile fibres by Burning test
3	Testing of textile fibres by Solubility test and Visual test
4	Identification of different types of yarns in the market
5	Samples collection of different types of yarns from market
6	Identification of fabric samples of different construction in the market
7	Samples collection of different types of fabrics from market
8	Study of thread count
9	Removal of different vegetable stains from fabric surface
10	Removal of different other stains from fabric surface
11	Washing and finishing of garments made of Cotton
12	Washing and finishing of garments made of Wool
13	Washing and finishing of garments made of Silk, Blends/ synthetic
14	Washing and finishing of garments made of Blends/ synthetic
15	Visit to textile mill or weaving center
16	Report writing

Suggested Readings

1. Text Books

1. Dantyaagi, S. 1959. Fundamentals of textiles and their Care. New Delhi. Orient Longman Limited.
2. Deulkar, D. and Tarabai. 1967. Household textiles and laundry Work. 3rd ed. Delhi. Atma Ram and Sons Ltd.
3. Joseph, M. L. 1986. Introductory textile science. 5th ed. New York. CBS College Publishing.

2. Reference Books

1. Labarthe, J. 1969. Textiles: Origins to Usage. New York. McMillan Company Ltd
2. Potter, M.D. and Corbman, B.P. 1967. Textiles: Fibre to fabric. New York. Macmillan Hill Co.

3. Stout, E.E. 1970. Introduction to textiles. 3rd ed. New York. John Wiley and Sons, Inc.
4. Tortora, P.G. 1978. Understanding textiles. New York. Macmillan Publishing Company.
5. Vilensky, L. D. and Gohl, E. P.G. Textile Science. Delhi. CBS Publishers and Distributors.
6. Wingate, I. B. 1970. Textile Fabrics and their selection. 6thed. New Jersey. Prentice Hall Inc.
7. Wynne, A. 1997. Textiles. London, Macmillan Education Ltd. 310 p.
8. Vatsala, R. 2003. Textbook of Textiles and Clothing. New Delhi. Indian Council of Agriculture Research.
9. Cowan, M. L. and Jungerman, M. E. 1969. Introduction to textiles. 6th ed. New York. Appleton-Century – Crofts. 325 p.
10. Hall, A.J. 1969. A Students Textbook of Textile Science. London. Allman and Son Ltd
11. Hollen, N. and Saddler, J. 1968. Textiles. New York. Macmillan Company.

3.e-Books

1. ebook.in/book/textile-science
2. www.teonline.com/books.html

Course No. TAD 233

Title Garment and Accessory Designing

Credits 3(0+3)

Semester III

Practical

Selection of figure template for men, women and children Designing of garments for women using different construction features: collar, sleeve, neckline men using different construction features: shoulder yoke, collar, sleeve, cuff children using different construction features: Yoke, gather, pleats, tucks, shirring, smocking, trimmings Drafting and construction of following garments for women, men and children fancy frock salwar/ pyjama/ pyjami kurta (gents)/kameez (ladies) night dress/ gown Accessories: introduction and classification; footwear, hand bags, belt, jewelry, gloves, hats, scarves and umbrella Designing of accessories for women, men and children Selection of designs for construction of accessories Construction of one accessory each for women, men and children.

Practical Exercises

Exercise No.	Title
1	Selection of figure template for men,
2	Selection of figure template for women
3	Selection of figure template for girls
4	Selection of figure template for boys
6	Designing of garments for women using different construction features: Stitching of small sample of Collar:-, round collar, flat collar, stand collar, shawl collar,
7	Stitching of small sample of Sleeves:- short sleeve, mega sleeve and puff sleeve,
8	Bell sleeve, leg mutton sleeve and full narrow sleeve

9	Designing of garments for women using different construction features: Stitching of small sample of Neckline :-such as round shape , square shape , V, shape and U shape neckline
10	Pot shape , boat shape, star shape , leaf shape glass shape
11	Designing of garments for men using different construction features: Stitching of small sample of Shoulder:- Back shoulder of men shirt of double layer fabric ,that support to collar stand in the shape , racket angular shape , V shape in canter, left and right V shape , of angular shape
12	Stitching of small sample of Yoke:- Types of yoke as front yoke up to armhole, back shoulder yoke, left side yoke or right side extra and opposite colour attached to the garment for the decoration collar,
13	Stitching of small sample of Sleeve such as tailored sleeve, full sleeve till wrist suit sleeve and Sherwani sleeve and bias sleeve
14	Stitching of small sample of Cuff:- wrist cuff of different width , narrow cuff
15	Designing of garments for children using different construction features: Stitching of small sample of Yoke,:- front yoke of chest to frock , down yoke to frock, yoke to skirt , yoke to sleeve ,
16	Stitching of small sample of Gathers:- gathers with hand basting , gathers with machine long stitch, gathers with machine zigzag long stitch and gathers with drawn thread of fabric
17	Stitching of small sample of Pleats:-, simple pleats , edge stitch side pleats , box pleats, inverted box pleats and accordion pleats
18	Stitching of small sample of Tucks:- Vertical tucks , horizontal tucks, square tucks , and round tucks
19	Making small sample of Smocking;- honey comb , cable and lattice mocking of petal shape , flower shape brick shape
20	Making small sample of Shirring & trimmings :- self trimming by drawn thread work , extra attachment by preparing by hand and different types of finishing process and developing designs in trimming
21	Drafting and construction of following garments for Women's Salwar:-Method of taking measurement of salwar and calculation of measurement
22	Drafting and Paper drafting of salwar
23	Folding of fabric and transfer of paper draft on fabric fold and cutting salwar
24	Stitching of salwar and finishing of salwar
25	Kameez, (ladies) :- Method of taking measurement of kameez and calculation of measurement
26	Drafting and Paper drafting of kameez
27	Folding of fabric and transfer of paper draft on fabric fold and cutting kameez

28	Stitching of salwar and finishing of kameez
29	Night gown:- Method of taking measurement of night and calculation of measurement
30	Drafting and Paper drafting of night gown
31	Folding of fabric and transfer of paper draft on fabric fold and cutting night gown
33	Stitching of night and finishing of night gown
32	Drafting and construction of following garments for Men Pyjama:-Method of taking measurement of pyjama and calculation of measurement
33	Drafting and Paper drafting of pyjama
34	Folding of fabric and transfer of paper draft on fabric fold and cutting pyjama
35	Stitching of pyjama and finishing of pyjama
36	Men Kameez(gents) :- Method of taking measurement of gents kameez and calculation of measurement
37	Drafting and Paper drafting of gents kameez
38	Folding of fabric and transfer of paper draft on fabric fold and cutting of gents kameez
39	Stitching of gents kameez and finishing of kameez
40	Children fancy frock Method of taking measurement of frock
41	Drafting and paper drafting of frock
42	Folding of fabric and transfer of paper draft on fabric fold and cutting of frock
43	Stitching of frock and finishing of frock
44	Accessories for women, Designing & making sample of jewelry and scarves umbrella, hand bags
45	Designing & making sample of umbrella,
46	Designing & making sample of hand bags
47	Accessories for Men Designing & making sample of belt, and hats
48	Accessories for children Designing & making sample of footwear

Suggested Readings

1.Text books

1. Doris May Beck 1972, 'Custom Tailoring for Homemakers, published by Chas. A.Bennet Co ,Peoria ,Illinois United State of America
2. Bray, N. 1986. Dress Pattern Designing. The Basic Principles of Cut and Fit. 5th ed. USA. Blackwell Science Inc.
3. Complete Guide to Sewing 1976 Reader Digest published United State of America (Canada)

2. Reference Books

1. Goldstein, H. and Goldstein, V. 1954. Art in Everyday life. 4thed. New York. Macmillan Publishing Co., Inc. pp – 515.
2. Bhatnagar, P. 2005. Decorative Design History in Indian Textiles and Costumes. Chandigarh. India. Abhishek Publications. 41-43 pp.
3. Graves, M. 1951. Art of Colour and design. 2nded. New York. McGraw- Hill Company. pp – 438.
4. Beitler, E. J. and Lockhart, B. 1961. Design for you. 2nded.
5. Peacock, J. 2000. Fashion accessories- The complete 20th century source book. London. Thames and Hudson.
6. Meadows, C. S. 2003. Know your fashion accessories. New York. Fairchild books

3.e-Books

1. www.victoriana.com/ebook/victorianclothingcatelog.html
2. yiwwg.info/fashion-apparel-accessories.pdf

Course No. TAD 244

Credits 3(1+2)

Title Techniques of Fabric Construction

Semester IV

Theory

History of weaving and looms Woven fabrics; simple woven structures and compound woven structures and characteristics of woven fabric Classification of looms on basis of mechanics, means of running loom, structure and means of weft insertion Parts of loom and loom accessories and their function Mechanism of weaving: primary, secondary and tertiary motions Basic weaves: Plain, twill and satin and their variations Complex weaves: extra yarn fabrics, pile fabrics, leno, damask and jacquard Knitting: Terminology and principle of knitting Knitting machine: Parts and their function and types of knitting machine Knitting stitches: plain, rib and purl and types of knit fabrics Macrame and crochet: Tools and materials. Manufacturing process of felt, properties and end uses

Practical

Observation of fabric structures under magnifying glass Graphical representation of woven design Handloom and its parts Weaving calculations and yarn preparation for plain weave Setting of loom and weaving of plain weave fabric Knitting machine and its parts Sample preparation of different fabric constructions hand knitting; plain, rib, purl knots of macramé stitches of crochet manual felting

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	History of weaving and looms	7.5

2	Woven fabrics; simple woven structures and compound woven structures and characteristics of woven fabric	5
3 and 4	Classification of looms on basis of mechanics, means of running loom, structure and means of weft insertion	5
	Parts of loom and loom accessories and their function	5
5	Mechanism of weaving: primary, secondary and tertiary motions	5
6,7 and 8	Basic weaves: Plain, twill and satin and their variations	12.5
9	Complex weaves: extra yarn fabrics, pile fabrics, leno, damask and jacquard	12.5
10 and 11	knitting: Terminology and principle of knitting.	5
	Knitting machine: Parts and their function and types of knitting machine	5
	Knitting stitches :plain, rib and purl and types of knit fabrics	5
12,13 and 14	Macrame and crochet: Tools and materials. Manufacturing process of felt, properties and end uses Macrame :Tools and materials. Manufacturing process	7.5
15	Crochet: Tools and materials. Manufacturing process	12.5
16	Felts:- Manufacturing process of felt, properties and end uses	12.5
	Total	100

Practical Exercises

Exercise No.	Title
1.	Observation of fabric structures under magnifying glass
2.	Graphical representation of woven design of basic weaves
3.	Graphical representation of woven design of complex weaves
4.	Study of Handloom
5.	Study of parts of Handloom
6.	Weaving calculations
7.	Yarn preparation for plain weave
8.	Setting of loom for plain weaving
9.	Weaving of plain weave fabric
10.	Practice of weaving plain weave fabric
11.	Practice of weaving plain weave fabric

12.	Study of Knitting machine
13.	Study of parts of Knitting machine
14.	Sample preparation of different fabric constructions of hand knitting;
15.	Sample preparation of plain knit
16.	Sample preparation of rib knit
17.	Sample preparation of purl knit
18.	Sample preparation of knot knit
19.	Macramé stitches and product making
20.	Practice of different macramé stitches
21.	Product making using macramé stitches
22.	Product making using Macramé stitches
23.	Product making using macramé stitches
24.	Crochet stitching and product making
25.	Practice of different crotchet stitches
26.	Practice of different crotchet stitches
27.	Product making using macramé stitches
28.	Product making using macramé stitches
29.	Product making using macramé stitches
30.	Manual felting (preparation of felt fabric by hand)
31.	Practice of Manual felting
32.	Product making using felt

Suggested Readings

1.Text Books

- 1.Dorothy S.Lyle and Jeanne Brinkley(1983)Contemporary Clothing, United States of America
2. Doris May Beck 1972, 'Custom Tailoring for Homemakers, published by Chas. A .Bennet Co ,Peoria ,Illinois United State of America
3. Alexander 1980 'Textile Products Selection and care , New York. Macmillan Hill Co
otter, M.D. and Corbman, B.P. 1967. Textiles: Fibre to fabric. New York. Macmillan Hill
- 4.Hamlyn House'1972' Golden Hands' The Complete Knitting, dress making and
Needle craft guide published by Marshall Cavendish Publication Ltd Singapore

2. Reference Books

1. Complete Guide to Sewing 1976 Reader Digest published United State of America (Canada)
2. Manmeet Sodhia, 2004 'Advance Drafting and Draping' Kalyani Publishers Ludhiana New Delhi
3. Rathbone and Trapley. 1946, 'Fabric and Dress' Cambridge. Massachusetts, U.S.A
4. Mary Lynch 1946 'Sewing Made Easy' Garden city books Garden city, New York United State of America
5. Evelyn A. Mansfield and Ethel L. Lucas. 1960, 'Clothing Construction' Fairchild Publications. Houghton Mifflin Company USA

3. e-Books

1. www.sewdaily.com/free ebook
2. allfreesewing.com/index.php/free-sewing-ebook

Course No. TAD 355
Credits 2(1+1)

Title Textile Finishes
Semester V

Theory

Textile finishing: Definition and its importance Classification of textile finishes: Chemical, mechanical, temporary, permanent, durable, renewable, semi permanent, reactive and additive finishes Processes of removing impurities from fabrics: Scouring, desizing, degumming, carbonizing, souring Basic finishes that alter hand or texture: Fulling/milling, felting, singeing, stiffening, decatizing Surface finishes: Bleaching, de-lustering, calendaring, beetling, napping, flocking, burnt out design, acid design, plisse design, tentering, shearing and brushing Functional finishes: Water proof and water repellent finish, shrinkage control, wrinkle resistance, anti-static finish, anti-microbial finish, durable press and flame retardant finish Dyes and pigments, classification of dyes Application of dyes: direct, acid, basic, vat, azoic, mordant, sulphur, reactive and disperse dyes Dyeing techniques and equipment: Solution dyeing, fibre dyeing; tow and stock dyeing, yarn dyeing; skein and package dyeing and piece dyeing Styles of printing: Direct, discharge and resist printing. Printing methods and equipment: Block, screen, stencil, roller, heat transfer printing, tie and dye and batik

Practical

Finishing of cotton fabric Scouring Bleaching Mercerization Tying and dyeing of cotton fabric with direct dye Fabric designing by batik technique with naphthol dye Printing of cotton fabric using different methods Block Stencil Screen Heat transfer

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1 and 2	Textile finishing: Definition and its importance Classification of textile finishes: Chemical, mechanical, temporary, permanent, durable, renewable, semi permanent, reactive and additive finishes	10

3 and 4	Processes of removing impurities from fabrics: Scouring, desizing, degumming, carbonizing, souring	10
5 and 6	Basic finishes that alter hand or texture: Fulling/milling, felting, singeing, stiffening, decatizing	10
7 and 8	Surface finishes: Bleaching, de-lustering, calendaring, beetling, napping, flocking, burnt out design, acid design, plisse design, tentering, shearing and brushing	10
9 and 10	Functional finishes: Water proof and water repellent finish, shrinkage control, wrinkle resistance, anti-static finish, anti-microbial finish, durable press and flame retardant finish	10
11 and 12	Dyes and pigments, classification of dyes Application of dyes: direct, acid, basic, vat, azoic, mordant, sulphur, reactive and disperse dyes	15
13	Dyeing techniques and equipment: Solution dyeing, fibre dyeing; tow and stock dyeing, yarn dyeing; skein and package dyeing and piece dyeing	15
14	Styles of printing: Direct, discharge and resist printing	5
15 and 16	Printing methods and equipment: Block, screen, stencil, roller, heat transfer printing, tie and dye and batik	15
	Total	100

Practical Exercises

Exercise No.	Title
1	Souring of cotton fabric
2	Bleaching
3	Mercerization
4	Preparation and outlining of fabric for tie-dye
5	Tying of cotton fabric for tie-dye
6	Dyeing of tied fabric
7	Preparation of fabric and designing for Batik
8	Waxing of fabric for Batik
9	Fabric dyeing with naphthol dye
10	De-waxing of waxed fabric
11	Preparation of fabric for Block printing
12	Printing of cotton fabric with block printing

13	Preparation of Stencil
14	Printing of cotton fabric using Stencil
15	Printing of cotton fabric using Screen
16	Printing of cotton fabric using Heat transfer printing

Suggested Readings

1.Text Books

1. Hollen, N. and Saddler, J. 1968. Textiles. New York. Macmillan Company.
2. Joseph, M. L. 1986. Introductory textile science. 5th ed. New York. CBS College Publishing.
3. Labarthe, J. 1969. Textiles: Origins to Usage. New York. McMillan Company Ltd.
4. Potter, M.D. and Corbman, B.P. 1967. Textiles: Fibre to fabric. New York. Macmillan Hill .
5. Stout, E.E. 1970. Introduction to textiles. 3rd ed. New York. John Wiley and Sons, Inc.

2.Reference Books

1. Tortora, P.G. 1978. Understanding textiles. New York. Macmillan Publishing Company.
2. Vilensky, L. D. and Gohl, E. P.G. Textile Science. Delhi. CBS Publishers and Distributors.
3. Wingate, I. B. 1970. Textile Fabrics and their selection. 6th ed. New Jersey.Prentice Hall Inc.
4. Wynne, A. 1997. Textiles. London. Macmillan Education Ltd. 310 p.
5. Koushik, C.V and Josico, A.I. 2003. Chemical processing of textiles: Preparatory processes an dyeing.NCUTE. New Delhi.
6. Shenai, V.A. (2000) Chemistry of dyes and principles of dyeing. Mumbai Sevak Publications.

3.e-Books

- 1.e- book ‘Dressings and finishings of textiles’, by Polleyn, Friedrich, Salter and Charles
- 2.www.abebook.com/search-title/textile finishing
- 3.www.ebooknetworking.net/ebooks/textile-dyeing-and-finishing.html

Course No. TAD 366 Title Retailing and Merchandising –Textiles and Apparel
Credits 2(2+0) Semester VI

Theory

Retailing and merchandizing- Terminology, concept and principles. Factors affecting merchandizing. Evolution of retail and retail formats.Retailing classification-Factors affecting merchandizing Role and responsibilities of merchandiser.Sale promotions and promotion mix.Adevertising,types,Visual merchandizing.Display-types,elements of display,principles of display.Major Chain stores in India. Steps in marketing research ,role of marketing research in product planning. Sale promotion and promotion mix: advertising, visual merchandising, public relations,sale promotion technique, personal selling and publicity. Pricing methods and pricing of textile Export and Import: Channels of

distribution, starting of export and import business and its procedure Organizations involved in export promotion in India WTO and its impact on retailing and merchandizing in textile and apparel industry.

Teaching Schedule-Theory With Weightages(%)

Lecture. No	Topics	Weightage (%)
1 and 2	Retailing and merchandizing- Terminology used	3
2, 3 and 4	Concepts and principles of retailing and merchandizing	3
5 and 6	Factors affecting merchandizing	3.75
7 and 8	Role and responsibilities of merchandiser.	5
9 and 10	Evolution of retail and retail formats	8.5
11 and 12	Retailing classification	4
13 and 14	Sale promotions	5.75
15 and 16	Promotion mix.	3
17 and 18	Advertising and its types	6.5
19	Visual merchandizing	3
20	Public relations	3
21 and 22	Display-types, elements of display, principles of display. Display Sale promotions and promotion mix.	8.75
23 and 24	Marketing research types, major chain stores	4
25 and 26	Steps in marketing research Role of marketing research in product planning	4.5
27 and 28	Sale promotion techniques and promotion	8
29	Pricing methods and pricing of textile Export and Import	6.5
30	Channels of distribution	6
31	Organizations involved in export promotion in India WTO and its impact on retailing and merchandizing in textile and apparel industry.	4.5
32	Starting of export and import business and its procedure	3
	Total	100

Suggested Readings

1. Text Books

1. Pradhan, S. 2009. Retailing management. 3rded. New Delhi. Tata McGraw-Hill Publishing Company Ltd.

2. Cooklin, G. 1991. Introduction to clothing manufacture. London. Blackwell Science Ltd.

3. Reference Books

1. Cooklin, G. 1991. Introduction to clothing manufacture. London. Blackwell Science Ltd.

2. Easey, M. 1995. Fashion marketing. Oxford (U.K.) Wiley-Blackwell.

3. Kotler, P. and Keller, K.L. 2006. Marketing management. 12th ed. New Delhi. Prentice Hall of India Pvt. Ltd.

4. Nickles, W.G. 1982. Marketing principles. II ed. New Jersey. Prentice Hall Inc. Eaglewood Cliffs.

5. Phillips, C.F and Duncan, D.J. 1956. Marketing principles and methods. II ed.U.S.A. Richard D. Irwin Inc.

6. Pradhan, S. 2009. Retailing management. 3rded. New Delhi. Tata McGraw-Hill Publishing Company Ltd.

7. Ramaswamy, V.S. and Namakumari, S. 2004. Marketing management- Planning, Implementation and Control. 4thed. New Delhi. Mcmillan India Pvt. Ltd.

8. Easey, M. 1995. Fashion marketing. Oxford (U.K.) Wiley-Blackwell

3.e-Books

1. www.textilelearner.blogspot.com

Course No. TAD 367

Title Traditional Textiles and Costumes of India

Credits 3(2+1)

Semester VI

Theory

Traditional woven textiles of India. History of woven textiles: Dacca muslin, Brocades, Calico Printing Traditional sarees of India Jamdani, Baluchari, Pochampalli, Patola and Ikat, Kanjivaram, Chanderi, Maheshwari, Bomkai, Sambhalpuri, Vichitrapuri, Paithani, Kota Doria, Gadwal, Ikkal, Venkatagiri, Narayanpet, Kasavu, Tanchoi and Brocade Sarees. Traditional woven and embroidered shawls of India: Shawls of Kashmir, Himachal Pradesh, Gujarat, North Eastern States and other states. Printed and painted textiles Printed textiles Block printed textiles: Dabuprinting, Bagruprinting, Sanganeriprinting, Bagh printing Tie and dyed textiles of Rajasthan and Gujarat. Painted textiles: Kalamkari, Madhubani, Warli, Patchitra, Phad and Pichhawai. Embroideries of different states of India: Kashida of Kashmir, Chamba Rumal, Chikankari and Zari work of Uttar Pradesh, Phulkari and Bagh of Punjab, Embroideries of Gujarat, Kantha of Bengal, Manipuri Embroidery, Kasuti of Karnataka, Embroidery and Rabari work of Bihar, Pipli work of Orissa Importance of traditional textiles in textile and apparel industry Importance and market scenario of traditional Indian textiles and their impact on modern textiles industry. Geographical Indications obtained for traditional Indian textiles.

Traditional costumes of different States of India:- Kashmir, Rajasthan , Gujarat, Punjab ,Himachal Pradesh, Assam, Andhra Pradesh, Maharashtra,

Practical

Documentation of motifs of traditional Indian embroideries. Sample preparation of traditional Indian embroideries Documentation of woven textiles of India. Creative projects in the adaptation of traditional motifs and designs in contemporary textiles through collection of samples, sketches and development of scrap book Visit to museum and art galleries

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1,2	Traditional woven textiles of India. History of woven textiles: Dacca muslin , Brocades, Calico Printing	12.5
3,4 and 5	Traditional sarees of India Jamdani, Baluchari, Pochampalli, Patola and Ikat, Kanjivaram, Chanderi, Maheshwari, Bomkai, Sambhalpuri, Vichitrapuri, Paithani, Kota Doria, Gadwal, Ikkal, Venkatagiri, Narayanpet, Kasavu, Tancoi and Brocade Sarees	12.5
6 and 7	Traditional woven and embroidered shawls of India: Embroidery Shawls of Kashmir, Himachal Pradesh ,Gujarat, and Punjab	10
8,9 and 10	Printed and painted textiles, Printed textiles Block printed textiles: Dabuprinting, Bagruprinting, Sanganeriprinting, Bagh printing Tie and dyed textiles of Rajasthan and Gujarat	12.5
11,12,13 and 14	Painted textiles: Kalamkari painting and Madhubani painting, Warli painting and printing, Patchitra painting, Phad painting and Pichhavai	12.5
15,16 and 17	Traditional Embroideries of different states of India: Kashida of Kashmir and Chamba Rumal,	5
	Chikankari and Zari work of Uttar Pradesh,	2.5
	Phulkari and Bagh embroidery of Punjab	2.5
18,19 and 20	Embroideries of Gujarat and Kantha of Bengal	2.5
	Manipuri Embroidery and Kasuti of Karnataka	2.5
	Rabari embroidery of Bihar and Pipli embroidery of Orissa	2.5
21,22	Importance of traditional textiles in textile and apparel industry Importance and market scenario of traditional Indian textiles and their impact on modern textiles industry	5
23,25	Geographical Indications obtained for traditional Indian textiles	5
26,27,28, 29,30,31 and 32	Traditional costumes of different States of India: Kashmir, Rajasthan , Gujarat, Punjab, Himachal Pradesh, Assam, Andhra Pradesh, Maharashtra,	12.5
	Total	100

Practical Exercises

Exercise No.	Title
1	Documentation of motifs of traditional Indian embroideries Collection of traditional motif of embroidery that identification of different state of India, Kashmir, Himachal Pradesh ,Gujarat, and Punjab, Lukhnow, Rajasthan, Karnataka
2	Sample preparation of traditional of Kashmir and Himachal
3	Preparation of sample of embroidery of and Punjab, Lukhnow
4	Preparation of sample of embroidery of Gujarat and Rajasthan
5	Preparation of sample of embroidery of Dharwad
6	Documentation of woven textiles of India. Collection of pictures of traditional fabrics Jamdani, Baluchari, Pochampalli, Patola and Ikat
7	Collection of pictures of Kanjivaram, Chanderi, Maheshwari, Bomkai,
8	Collection of pictures of Sambhalpuri, Vichitrapuri, Paithani, Kota Doria,
9	Collection of pictures of Gadwal, Irkal, Venkatagiri, Narayanpet, Kasavu, Tanchoi and Brocade Sarees
10	Creative projects in the adaptation of traditional motifs and designs in contemporary textiles through collection of samples Preparation of big sample of dress (Ghagra ,blouse and dupatta of traditional embroidery
11	Selection of traditional motif and tracing of design on ghagra ,blouse and dupatta for hand embroidery
12	Selection of stitch ,thread & needle for hand embroidery on ghagra ,blouse and dupatta
13	Stitching of ghagra ,blouse and dupatta of hand embroidery And display
14	Preparation of practical record book of different samples of pictures traditional fabric and traditional motif of embroideries, Samples of hand embroidery of Kashmir, Himachal Pradesh ,Gujarat, and Punjab, Lukhnow, Rajasthan, Karnataka
15	Visit to museum and art galleries
16	Report writing

Suggested Readings

1.Text Books

- 1.Durga Deulkar 1983. Household Textiles and Laundry work ,Published by Atma Ram & Sons
Delhi Lucknow

2. Manly Banister 1976 Wood Block Cutting & Printing , publishing co. New York
3. Jane Simpson ,1977. 'The Colour book of Embroidery' published Mandarin ,Hong Kong
- 4 Hamlyn House'1972' Golden Hands' The Complete Knitting, dress making and needlecraft guide published by Marshall Cavendish Publication Ltd Singapore

2. References Books

1. Manmeet Sodhia , 2004 History of Fashion Chapter ,18'Traditional Costume of India and Chapterno 19Traditonal Textiles of India and Indian Embroidery, book published ,Kalyani publishers ,Ludhiana- NewDelhi-Noida (U.P)2004
4. Bhatnagar, P. 2005. Decorative Design History in Indian Textiles and Costumes. Chandigarh, Abhishek Publication.
3. Chattopadhyay, K. 1977. Indian Embroidery. New Delhi, Wiley Eastern Limited
4. Harney, J. 1997. Traditional Textiles of Central Asia. London. Thomesand Hudson Ltd.
5. Krishna, R A. 1966. Banaras Brocades. New Delhi. Crafts museum.
6. Lubell, C. 1976. Textile Collection of the World. Vol. 2. London. United States publication.
7. Mehta, R J. 1970. Master Piece of Indian Textiles. D. B. Taraporevale Sons and Co. Private Ltd.
8. Treasure of Indian Textiles. 1980. Calico Museum. Ahmedabad. Marg Publication Bombay

3.e-Books

1. www.academia.edu/traditional-indian-costume-textile
2. Abbzt.us/traditional-costume-india.pdf

STUDENT READY PROGRAMME 40(0+40)

Course No. SRP 471	Title Implant Training
Credits 10 (0+10)	Semester VII
Course No. SRP 472	Title Rural Awareness Work Experience
Credits 10 (0+10)	Semester VII
Course No. SRP 481	Title Experiential Learning
Credits 20(0+20)	Semester VIII

**DEPARTMENT OF COMMUNITY EXTENSION AND COMMUNICATION
MANAGEMENT**

Course No. CECM111

Title Community Extension and Rural Development

Credits 2 (1+1)

Semester I

Theory

Philosophy, principles and objectives of Home Science Extension Education- concept and importance, philosophy, principles and objectives. Evolution of extension education- glimpses of pre- and post-independence era. Community: Meaning and definition, types of communities, Community development programmes- concept, objectives, organization, activities, achievement and failures., concepts-structural and functional, differences between rural, urban and tribal societies. Rural development- concept, need, meaning, aim and functions of extension education for rural development. Panchayati Raj Institutions- concept, structure and function. Current rural development programmes/ Organisations- SGSY, MGNREGA, IAY, ICDS, Total sanitation schemes/ campaigns etc., DWMA, ATMA, ITDA, DRDA, KGMV. Role of ICAR, SAUs, KVKs, DAATTCs and NGOs in rural development.

Practical

Visit to Gram Panchayat, Visit to KVK, Study of SJSY, ICDS, KGMV, ATMA, DRDA MGNREGA, Visit to NGO , Visit to Anganwadi centre.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Extension education concept, need and importance	5
2&3	Philosophy, principles and objectives of extension education	15
4&5	Community: Meaning and definition, types of communities, community and science	5
6	Concepts-structural and functional differences between rural, urban and tribal societies.	10
7&8	Rural development- concept, need, aim and functions of extension education for rural development	15
9&10	Evolution of extension during pre-independence era.	10
11& 12	Community development programme concept, objectives, organization, activities, achievement and failures	15
13& 14	Panchayati Raj Institutions - concept, structure and function	10
15&16	Current rural development programmes/ Organisations- SGSY, MGNREGA, IAY, ICDS, Total sanitation schemes/ campaigns etc., DWMA, ATMA, ITDA, DRDA, KGMV Role of ICAR, SAUs, NGOs & KVKs in rural development	15
	Total	100

Practical Exercises

Exercise No.	Title
1	Visit to Gram Panchayat
2	Report writing
3	Visit to KVK
4	Report writing
5	Study of SJSY
6	Report writing
7	Visit to NGO
8	Report writing
9	Study of ICDS. KGMV
10	Report writing
11	Visit to Anganwadi centre
12	Report writing
13	Study of ATMA
14	Study of DRDA
15	Study of MGNREGA
16	Report writing

Suggested Readings

1. Text Books

1. Dahama, O.P. and Bhatnagar, O.P. (2003). Education and Communication for Development. Oxford and IBH Publishing Co. Pvt. Ltd.
2. Reddy, A.A (2001), Extension Education, Bapatla: Sri Lakshmi Press.
3. Ray, G.L. (2003), Extension Communication and Management. Kalyani Publishers. Fifth revised and enlarged edition.

2. Reference Books

1. R.R. Chole, P.R. Deshmukh & P.S. Kapse Transfer of agricultural technology
2. Sandhu, A.S (2003), Extension Programme Planning, New Delhi : Oxford IBH

3. e-Books

PDF]Download E-book (PDF) - Academic Journals

www.academicjournals.org/ebook/journal1422551367_January%202015%20issue%2...

PDF]Download E-book (PDF) - Academic Journals

www.academicjournals.org/ebook/journal1398932469_January%202014%20Issue.pdf

Download E-Book of Ministry of Rural Development | National Portal of

<https://india.gov.in/download-e-book-ministry-rural-development>

Course No. CECM 122

**Title Communication, Diffusion and adoption of
Homestead Technologies**

Credits 3 (1+2)

Semester II

Theory

Concept, meaning, elements of communication process, Classification of extension teaching methods. Communication approaches individual, group and mass projected aids three-dimensional aids, feedback, fidelity, barriers in Communication.

Concept and elements of diffusion process. Innovation–decision process, types of innovation–decision, consequences of innovations. adoption: meaning, definition, adoption process, factor affecting adoption and innovation – decision process and constraints. Different terms used in diffusion of innovation and adoption process: Rate of adoption, over adoption, innovativeness, dissonance, rejection, discontinuance. Adopter categories: concept and types. Homestead technology: concept and its relevance to innovation – decision process different channels of communication and their characteristics. Change agents and opinion leader; change proneness – acceptance and resistance to social change. Different homestead technologies with special reference to Home Science.

Practical

Familiarization with accessories for preparing instructional materials. Preparation of Poster, Chart ,folder , flash card etc. projection systems .Collection of homestead technologies. Adoption in localities- Observation, visit to different entrepreneurs with adopted home stead technologies for business enterprise. Visit to different successful SHGs, Categories of adopters among SHG members. Analysis and presentation of report. Identification of change agents in a locality, Presentation of report

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Orientation to course	
2&3	Communication concept, importance, elements, process	10
4&5	Communication barriers	10
6	Diffusion concept and elements	10
7	Meaning of related terms innovation, adoption	5
8&9	Innovation-decision process	10
10&11	Rate of adoption and factors affecting adoption discontinuance, over adoption	15
12	Social change, change agents and opinion leaders, change proneness	5
13	Characteristics of innovation with special reference to homestead technologies	10
14	Communication channels for technology transfer	5
15	Adopter’s categories,	10
16	Consequences of adoption Constraints in adoption of technologies	10
	Total	100

Practical Exercises

Exercise No.	Title
1	Orientation to course practical
2	Familiarization with accessories for preparing instructional materials
3	Chart papers, marker pens , stencils, different colours etc.
4	Preparation of charts
5	Utilization of charts
6	Finalization of theme, rough sketch& caption of posters
7	Preparation of posters
8	Utilization of posters
9	Finalization of theme of flash cards
10	Preparation of flash cards
11	Utilization of flash cards
12	selection topics for transparencies
13	Preparation of transparencies
14	use of transparencies
15	Studying different parts of slide projector
16	Handling of slide projector
17	Studying different parts of overhead projector
18	Handling of overhead projector
19	Studying different parts of LCD projector
20	Studying functions of different parts of LCD projector
21	Handling of LCD projector
22	Structuring of family survey schedule
23	Finalization of survey schedule
24	Conducting family survey
25	Interpretation of data
26	Structuring of village survey schedule
27	Finalization of survey schedule
29	Conducting village survey
30	Interpretation of data
31	Identification of needs and problems of rural women
32	Study of different homestead technologies used by rural women

Suggested Readings

1. Text Books

1. Dahama, O.P. and Bhatnagar, O.P. (2003). Education and Communication for Development. Oxford and IBH Publishing Co. Pvt. Ltd.
2. Reddy, A.A (2001), Extension Education, Bapatla: Sri Lakshmi Press.
3. Ray, G.L. (2003), Extension Communication and Management. Kalyani Publishers. Fifth revised and enlarged edition.
4. Sandhu, A.S (2003), Extension Programme Planning, New Delhi : Oxford IBH

5. Rogers & shoemaker Diffusion of innovations

2.Reference Books

1. Sandhu, A.S (2003), Extension Programme Planning, New Delhi : Oxford IBH
2. Indu Grover, Nishi Sethi, Deepak Grover (2004 or new) Handbook of communication and media, Agrotech Publishing Academy, 1-GA 24 Sector - 5, Gayatri Nagar, Hiran Magri, Udaipur 313 002.
3. Sanjay Gaur - Dimensions of mass media and communication, Book enclave publisher, Jaipur H.O. Jain Bhawan, Opp.NEI, Shanti Nagar, Jaipur 302006

3.e-Books

[best communication eBooks | Bookboon Blog](#)

bookboon.com/blog/2014/08/5-best-communication-books/

[Effective Communications | Free eBook in PDF, Kindle and ePUB Format](#)

www.free-management-ebooks.com/dldebk/dlcm-effective.htm

[Ebook: Communication Theory : Free Download & Streaming : Internet](#)

<https://archive.org/details/EbookCommunicationTheory>

[Diffusion of Innovations, 4th Edition eBook by Everett M. Rogers ...](#)

www.simonandschuster.com/books/Diffusion-of-Innovations.../9781451602470

Course No. CECM 233 Title Programme Development for Rural Families

Credits 3 (2+1) Semester III

Theory

Planning: nature of planning. Extension programme planning: concept, definition, objectives, principles, relevant terms used in programme planning: situation, aims, objectives, problem, solution, project, plan, plan of work, calendar of work etc. Steps in extension programme planning: elaborate discussion. Critical analysis of few major development programmes under five-year plans. Leader and leadership: meaning, definition, identification of leader execution of programme: Environment and rapport building, role of local leader, involvement of local leaders, involvement of local bodies, organizations and extension agencies. Implementation of programme and constraints associated with it. Monitoring and evaluation: concept, meaning, definition.

Practical

Establishing rapport with rural families and identification of leader. Conducting baseline survey of village and household and analysis of information. Different PRA tools, its applications in programme development and exercises. Triangulation of information from conventional and PRA method. Preparation of detailed plan of work for small need based programme. Implementation of programme Evaluation of programme Documentation Presentation of findings of programme

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Orientation to course	
2&3	Programme planning - Concept and importance and need of programme development ,Concept of five year plans and rural development	10
4&5	Objectives of Programme planning	5
6&7	Principles of Programme planning	10

8&9	Steps in programme planning	10
10	Involvement of local people in planning programme	5
11	Leader and Leadership meaning, qualities and roles	5
12&13	Types of leaders	5
14,15&16	Identification and training of leaders	10
17&18	Environment building	4
19& 20	Execution of programme	5
21&22	Involvement of local leaders, local bodies, organizations and extension agencies	2
23&24	Constraints in implementation of programme at grass root level and ways to overcome them.	2
25,26&27	Monitoring and evaluation of Extension programme concept, importance,	2
28,29&30	Training Evaluation-Elements, types and techniques, degrees, value, six keys	15
31 &32	Participatory Rural Appraisal - Concept and techniques.	10
	Total	100

Practical Exercises

Exercise No.	Title
1	Orientation to course practical
2	Discussion & understanding different concepts in programme development
3	Developing rapport with rural families
4	Conducting household survey
5	Assessing the needs of rural families
6	Formulation of objectives for programme
7	Conducting village survey
8	Assessing areas for development of programme
9	Prioritizing the issues to be tackled
10	Development of small need based programme
11	Development of instructional material
12	Finalization of role play
13	Implementation of program
14	Feedback & follow up
15	Evaluation of program
16	Writing report and its presentation

Suggested Readings

1. Text Books

1. Dahama, O.P. and Bhatnagar, O.P. (2003). Education and Communication for Development. Oxford and IBH Publishing Co. Pvt. Ltd.

2. Reddy, A.A (2001), Extension Education, Bapatla: Sri Lakshmi Press.
3. Ray, G.L. (2003), Extension Communication and Management. Kalyani Publishers. Fifth revised and enlarged edition.
4. Sandhu, A.S (2003), Extension Programme Planning, New Delhi : Oxford IBH

2. Reference Books

1. R.C.Ramanujan - Mass Communication and its Digital Transformation, APH, New Delhi (81-313-0039)
2. Aggarwal J.C (2007). Essentials of Educational Technology, Vikas publishing house Pvt. Ltd. A-22, Sector-4, Noida-201301(UP)

3.e-Books

1. [Download E-Book of Ministry of Rural Development | National Portal of India](https://india.gov.in/download-e-book-ministry-rural-development)
2. <https://india.gov.in/download-e-book-ministry-rural-development>
3. [Ebook - Ministry of Health & Family Welfare](https://www.mohfw.gov.in/ebook/index.html)
4. www.mohfw.gov.in/ebook/index.html
5. [Rural Families and Reshaping Human Services eBook: Jeanne F...](https://www.amazon.ca/Rural-Families-Reshaping-Human...ebook/dp/B01EAHZMIS)
6. <https://www.amazon.ca/Rural-Families-Reshaping-Human...ebook/dp/B01EAHZMIS>

Course No. CECM 244

Title Training and Human Resource Development

Credits 3 (1+2)

Semester IV

Theory

Training: Concept, need, definition, importance. Identification of training need. Types of Training. training process, different phases of training and its management. Qualities of a good trainer-communications skills, training skills, motivational skills and handling difficult situations. Adult learning, characteristics of adult learner. Facilitation skills in training, problem and prospects of training. Designing training module: Basic guidelines, steps in module designing. Training methods. Training evaluation: Objectives, principle, steps and indicators of training evaluation. Important training institutions in India.

Practical

Visit to state level training institutes, report writing and presentation, Visit to vocational training institutes, report writing and presentation, Hands-on-experience with training need analysis. Writing training objectives. Hands-on-experience on training methods, Familiarization with monitoring and evaluation tools of training, Preparation of training module, Designing, conducting and evaluation of training programme, Analysis of HRD programmes of academic and corporate institutions. Interaction with HRD professionals. Presentation of reports.

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Training: Concept, need, definition, importance	5
2	Identification of training need	10
3	Types of Training. training process, different phases of training and its management	10
4	Qualities of a good trainer- communications skills, training skills, motivational skills and handling difficult situations	5
5&6	HRD- concept , objectives ,elements, strategies	15

7	Adult learning, characteristics of adult learner.	5
8	Facilitation skills in training, problem and prospects of training.	10
9&10	Designing training module: Basic guidelines, steps in module designing.	10
11 to15	Training methods.	20
16	Training evaluation: Objectives, principle, steps and indicators of training evaluation. Important training institutions in India	10
	Total	100

Practical Exercises

Exercise No.	Title
1	Discussion & understanding of different training phases
2	Discussion & understanding of different training components
3	Discussion on different methods of Assessing training needs
4	Assessing training needs
5	Formulation of training objectives
6	Discussion on different
7	Designing training plan
8	Visit to state level training institutes,
9	Report writing and presentation
10	Visit to vocational training institutes,
11	report writing and presentation,
12	Hands-on-experience with training need analysis.
13	Hands-on-experience on training methods-micro lab
14	Hands-on-experience on training methods-brain storming
15	Hands-on-experience on training methods-role play
16	Hands-on-experience on training methods-experiential learning
17	Hands-on-experience on training methods-panel discussion
18	Hands-on-experience on training methods-case study
19	Hands-on-experience on training methods- interactive video
20	Hands-on-experience on training methods- lecture
21	Familiarization with monitoring and evaluation tools of training,
22	Familiarization with offline and online training module.
23	Preparation of training module
24	conducting of training programme
25	evaluation of training programme
26	Report writing and presentation
27	Analysis of HRD programmes of academic institutions.
28	Report writing and presentation
29	Analysis of HRD programmes of corporate institutions
30	Report writing and presentation
31	Interaction with HRD professionals.
32	Presentation of reports.

Suggested Readings

1. Text Books

1. Lynton, R.P. and Pareek, V. (2008). Training for Development. Vistaar Publications.
2. Saxena, J.P. and Kakkar, A.T. (2000). Training and Development.
3. Setty E.D (2003). A Practical Handbook On Training, Anmol Publications Pvt. Ltd. 4374/4B, Ansari Road, Daryaganj, New Delhi – 110002 (India)
4. Gupta, C.B. (2001). Human Resource Management. Sultan Chand and Sons.

2. Reference Books

1. Dahama, O.P. and Bhatnagar, O.P. (2003). Education and Communication for Development. Oxford and IBH Publishing Co. Pvt. Ltd.
2. Narwani, G.S. (2002). Training for Rural Development. Rawat Publication.
3. Kalla P.N, Purohit A.K, Sharma S.K, Mrs. Chitra Henry, Vipin Laddha & Hanuman Ram (2008). New Dimensions of Extension Training and Management, Mrs. Geeta Somai, Agrotech Publishing Academy 11-A, Vinayak Complex B Durga Nursery Road Udaipur- 313001, Rajasthan (India)

3. e-Books

[Human Resource Management books - Bookboon](#)

bookboon.com/en/hrm-ebooks

[Human Resource Development: Learning & Training ... - Google Books](#)

<https://books.google.co.in> > ... > Human Resources & Personnel Management

[Human Resource Development eBook: R Krishnaveni: Amazon.in ...](#)

<https://www.amazon.in/Human-Resource-Development-R...ebook/dp/B0084500XG>

[Foundations of Human Resource Development eBook: Richard A ...](#)

<https://www.amazon.in/Foundations-Resource-Development...ebook/dp/B00200LJU8>

[Amazon.com: Human Resource Development eBook: Jon M. Werner ...](#)

<https://www.amazon.com/Human-Resource-Development-Jon...ebook/.../B00B9EOX...>

[Human Resource Management - Free E-Books - E-Books Directory](#)

www.e-booksdirectory.com > Business & Investing

[Training and Development - Bookboon](#)

bookboon.com/en/training-and-development-ebook

[Human Resource Development eBook: R Krishnaveni: Amazon.co.uk ...](#)

<https://www.amazon.co.uk/Human-Resource-Development-R...ebook/.../B0084500X...>

Course No. CECM 355

Title Project Management

Credits 3 (1+2)

Semester V

Theory

Project management: Overview. Project - meaning, concept, types, elements of management. Project proposal- concept, designing, project initiation, resource allocation framework. Market and demand analysis. Environmental appraisal of projects, Environmental impact analysis, Technical analysis, Financial analysis. Budgeting Terminology of networks. Project management techniques.

Practical

Collection and screening of case studies on project management and report writing, Visit to project - Technology generation project. Visit to Project - Transfer of Technology (ToT). Visit to Project- Women entrepreneurship. Visit to state level and international level funding agencies. Visit to

International funded projects. Visit to women and child development project. Visit to agriculture development project, Visit to rural development projects. Designing, planning and preparation of a mini project proposal.

Working on project management techniques: PERT. Working on project management: CPM. Working on project management techniques: WBS. Report writing

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Project management: Overview	10
2&3	Project - meaning, concept, types, elements of management.	15
4,5&6	Project proposal- concept, designing, project initiation, resource allocation framework.	15
7&8	Market and demand analysis	10
9 to10	Environmental appraisal of projects Environmental impact analysis	10
11, &12	Technical analysis, Financial analysis.	10
13&14	Budgeting ,Terminology of networks	10
15&16	Project management techniques. Concept of CPM and PERT.	20
	Total	100

Practical Exercises

Exercise No.	Title
1	Collection of case studies on project management
2	Report writing
3	Screening Of case studies on project management
4	Report writing
5	Visit to project - Technology generation project.
6	Report writing
7	Presentation of report
8	Visit to Project - Transfer of Technology (TOT).
9	Report writing
10	Presentation of report
12	Visit to Project- Women entrepreneurship.
13	Report writing
14	Presentation of report
15	Visit to state level and international level funding agencies.
16	Report writing
17	Visit to women and child development project.
18	Report writing
19	Presentation of report
20	Visit to agriculture development project,
21	Report writing
22	Presentation of report
23	Visit to rural development projects

24	Report writing
25	Presentation of report
26	Designing, planning of a mini project proposal.
27	Preparation of a mini project proposal.
28	Working on project management techniques: PERT.
29	Report writing
30	Working on project management techniques:, CPM
31	Working on project management techniques: WBS.
32	Report writing

Suggested Readings

1.Text Books

1. Kelkar S.A (2009). Information Technology Project Management, Asoke K.Ghosh, PHI Learning private limited, M-97, Connaught circus, New Delhi – 110001
2. Larry Richman (2009). Project Management Step- By-Step, Asoke K.Ghosh, PHI Learning private limited, M-97, Connaught circus, New Delhi – 110001

2.Reference Books

1. Dahama, O.P. and Bhatnagar, O.P. (2003). Education and Communication for Development. Oxford and IBH Publishing Co. Pvt. Ltd.
- 2.. Ray, G.L. (2004), Extension Communication and Management. New Delhi : Kalyani Publishers.

3.e-Books

Project Management books - Bookboon

bookboon.com/en/project-management-ebooks

Project Management - Bookboon

bookboon.com/en/projectmanagement-ebook

Free Project Management eBooks, Templates and Checklists

www.free-management-ebooks.com/skills-project.htm

Project Management Principles | Free eBook in PDF Format

www.free-management-ebooks.com/dldebk/dlpm-principles.htm

Free Project Management Books : PDF Download - Online ...

www.onlineprogrammingbooks.com/project-management/

[\[PDF\]Project Management.pdf](#)

group27.narod.ru/ucheba/files/McGraw_Hill-Project_Management.pdf

Operations & Project Management - Free E-Books - E-Books Directory

www.e-booksdirectory.com > Business & Investing

Project Management ebook, Project Management Can Be Easy!

<https://www.easyprompts.net/ebook/>

Project Management: 19 Sites & Hundreds of Free Ebooks | Download

www.getfreeebooks.com/project-management-19-sites-hundreds-of-free-ebooks/

Course No. CECM 366

Title Women in Agriculture

Credits 2 (1+1)

Semester VI

Theory

Agricultural and allied sectors in rural India, role of women in agricultural and allied sectors, status of farm women -Social, economic and health status of women in agriculture, Women friendly tools and implements, Gender issues, Women in agriculture Policy, Programmes (Government and non-government) and institutions for women in agriculture, Women empowerment

in agriculture, Agripreneurship and training to farmwomen.

Practical

Introduction of women friendly technologies i.e. cotton picking coat, improved sickle
Study of women Self Help group, Visit to enterprises set by Women SHGs, Study of women empowerment programmes i.e. NATP, AICRP, Visit to MAVIM

Teaching Schedule-Theory With Weightages(%)

Lecture No.	Topics	Weightage (%)
1	Agricultural and allied sectors in rural India	5
2&3	Role of women in agriculture and allied sectors	10
4to6	Status of farm women -Social, economic and health status	15
7to9	Women friendly tools and implements	15
10	Gender issues in agriculture	10
11&12	Women in agriculture policy	10
13&14	Programmes (government and non-government)and institutions for women in agriculture	15
15	Women empowerment in agriculture	10
16	Agripreneurship and training to farmwomen.	10
	Total	100

Practical Exercises

Exercise No.	Title
1	Orientation to practical course
2	Introduction of women friendly technologies i.e. Study of cotton picking coat,
3	Study of improved sickle, milking stand& stool
4	Study of maize Sheller, gopal khore
5	Study of Sulbha bag, mittens
6	Visit to women Self Help Group
7	Study of different activities of Self Help Group
8	Report writing
9	Visit to enterprises set by Women SHGs
10	Report writing
11	Study of women empowerment programmes i.e. NATP,
12	Report writing
13	Study of AICRP
14	Report writing
15	Visit to Mahila Arthik Vikas Maha Mandal
16	Report writing

Suggested Readings

1. Text Books

1. Antwal P.N., Murali D. (2004). Extension Education

2. Reference Books

1. Stephen A. (2006). Communication Technologies and Women empowerment, (81-7880-256-2), Rajat Publication 4675/21, Ganpati Bhawan, Ansari Road, Durya Gunj, New Delhi 110002
2. Jandhyala B.G Tilak (2007). Women's Education and Development, Gyan Publishing House 5, Ansari Road, Daryaganj, New Delhi – 110002

3. e-Books

e-books | [Indian Council of Agricultural Research](#)

www.icar.org.in/en/taxonomy/term/156

[Gender in Agriculture - Closing the Knowledge Gap | Agnes R ...](#)

www.springer.com/gp/book/9789401786157

[Women in Agriculture: A Guide to Research \(Women's Source Library ...](#)

<https://www.amazon.com/Women-Agriculture...Womens...ebook/dp/B009W3VXSO>

[Amazon.com: Women in Agriculture Worldwide: Key issues and ...](#)

<https://www.amazon.com/Women-Agriculture-Worldwide...ebook/.../B01HTHAWW...>

[FAO e-book collection | FAO | Food and Agriculture Organization of the](#)

www.fao.org/publications/e-book-collection/en/

[Gender in Agriculture Sourcebook - E-Book - Cruz Roja](#)

www.livelihoodscentre.org/-/gender-in-agriculture-sourcebo-1

[Women and Agriculture - A case study of a rural village in ...](#)

www.grin.com › Catalog › African Studies

[E-Books | National Portal of India](#)

<https://india.gov.in/my-government/documents/e-books>

Formats for Study Tour or Educational Tour Report and For Its Evaluation

Course No. STUT 121 and STUT 242

**Title Study Tour I (M.S.) and
Study Tour II (India)**

Credit 1(0+1)

Semester II & IV

- 1. Maharashtra Study Tour or 1. India Study Tour**
- 2. Name of the student**
- 3. Reg. No :**
- 4. Tour In-charge Professors**
- 5. Duration and Dates of Tour**
- 6. Visited Places , Institutions, Companies and Historical Monuments and Their Specialties**

Place	Date and Time	Names and Its Specialties			Learning outcome
		Institutions	Companies	Historical Monuments	

- 7. Shouldered responsibilities related to the tour (Prior to tour / During tour) individually and in group**

(Rating points – Excellent-5, Very good-4, Good-3, Fair-2, Just OK -1, Poor- Nil)

Shouldered Duties	Individually / In group	Self- Rating about Performance
1 Collection of information about places to be visited and presenting it in class		
2 Making list of materials required for tour by all and getting them issued from College and using them wisely in tour		
3 Photo shoot work of all in all places (formal and candid ones) 3 groups		
4 Discipline task – Taking roll call before and after visits, announcing timings of it and monitoring time management of all		

Shouldered Duties	Individually / In group	Self- Rating about Performance
5 Taking care of money collection – for ticketing trains/ buses, historical places, common eatables etc		
6 Attending health issues of Classmates- first aid, other help		
7 Taking care of safety of belongings of students and college in tour		
8 Making thanks giving cards using creativity, with good finish and messages to present to staff / institutions to express gratitude for their help		
9 Taking care of cleanliness in vehicles, at accommodation places		
10 Taking care of inter- personal relations of students with positive and professional attitude for group coherence		
11 Taking care task of trouble- shooting throughout the tour		
12 Rendering assistance to staff for successful tour		
13 Any other		

Marking Scheme for Evaluation of Study / Educational Tour

S.No	Items	Allotted Max. Marks (50)	Acquired by each student
1	Tour dairy evaluation	20	
2	Shouldered duties in group / individually	10	
3	Presentation of tour report with pictures in PPT in group (PPT Slides must divided by group mates and each one should present their share)	10	
4	Discipline, devotion and sincerity	10	
	Total	50	

Format for Compilation of Results of Students For Study / Educational Tour 1 & 2

S.No	Reg. Number	Name of student	Tour dairy evaluation	Shouldered duties in group / individually	Presentation of tour report with pictures in PPT –group wise	Discipline, devotion and sincerity	Total	Remarks
			20 marks	10marks	10marks	10 marks	50marks	
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

STUDENT READY PROGRAMME

Course No.SRP 471(HDS/RMCS/FSN/TAD)

Title Implant Training

Credit 10(0+10)

Semester VII

Students will attend the training in various related centers and will be evaluated on following points

S. No.	Particulars	% mark for each item	Allotted marks
1	Regularity, sincerity and devotion	25%	125
2	Initiative, confidence and skill acquisition	35%	175
3	Project report and presentation	30%	150
4	Viva voce examination	10%	50
	Total	100	500

Course No. SRP 472

Title Rural Awareness Work Experience

Credit 10(0+10)

Semester VII

Work Schedule of RAWE

S.No.	Activities
1.	Orientation of RAWE programme
2.	Introduction of RAWE students to the Grampanchayat members, Anganwadi tai, Teacher's, Students
3.	Introduction of RAWE students to the selected families and other related work
4.	Visit to various places in village for collection of information for village profile.
5.	Children's GQ assessment camp in Anganwadi

6.	Children's GQ assessment camp in Schools
7.	Children's GQ assessment camp in colony
8.	Preparation for poster making
9.	Visit to Local Banks and Interview with Managers
10.	Celebration of National Nutrition Week & Demos on Nutritious recipes
11.	Swacchata abhiyan in Anganwadis and Schools
12.	Survey of families and Swacchta Abhiyan at PHC
13.	Exam of Poster presentation
14.	Lecture on anemia, malnutrition, obesity & demos on value added food products
15.	Demo on Tie and Dye
16.	Demo on patch work and embroidery
17.	Conducting activities in AW and rapport building with the adopted families and collection of required information for assessing needs and planning intervention activities.
18.	Documentation and keeping record
19.	Demonstration on Best out of Waste in Schools
20.	Tree Plantation at village
21.	Demos on soya and other food products.
22.	Lecture on resource management in families
23.	Demo on best from waste in school & conducting activities for Developmentally challenged child in family
24.	Documentation & keeping records
25.	Preplanning for workshop
26.	Organization of workshop in Z. P. School for Enhancing Scholastic Achievement of School Students

27.	Documentation and keeping record
28.	Demonstration on nutritious recipes
29.	BP, Hb, Blood group Check up camps in village
30.	Demo on handicraft articles
31.	Demo on embroidery stitches for school drop girls
32.	Celebration of Mahatma Gandhi Jayanti in the College of Home Science and participating in Swacch Bharat Abhiyan
33.	Preparation for workshop and Collection of exhibits from the various departments of College of Community Science
34.	Documentation and keeping record
35.	Family interventions
36.	Celebration of world food day
37.	Documentation and keeping record
38.	Demo on pickles, chutney
39.	Winding up of RAWWE programme

Report on Village Profile should include following aspects

1. Cultural practices
2. Historical events
3. Political scenario
4. Religious & cast demography
5. Population & its other details (Age distribution of people, Mortality rate, Birth rate, Fertility rate etc)
6. Educational facilities
7. Supportive educational facilities

- 8 Human Development Index of the Taluka, District and village
9. Farming practices and Common Crops, Irrigation and dry Lands
10. Burning problems of village (Farmers' problems - water, seed, fertilizers), women, children and youth of the village
11. Marketing, Canteen facilities - cost effective nutrition, readymade foods sold
12. Health problems and survey report of special children in ICDS centre
13. PHC facilities and its status and private medical facilities and other out sourcing
14. Transport facilities
15. Water facilities

RAWE Marking Scheme 10(0+10)

S. no.	Particulars	% mark for each item	Allotted marks
1	Survey- assessing village people needs (Pre RAWE) & getting feedback (Post RAWE)	10	50
2	Exhibition and rally(Group work)	10	50
3	Preparation of Audio visual aids(Individual)	10	50
4	Family Interventions (Individual work)	10	50
5	Mass community Education Programme(Group work)	05	25
6	Work diary + Work documentation (Photos +Record)	10	50
7	Oral presentation of field work	10	50
8	Written examination on field work	20	100
9	Viva-voce examination	05	25
10	Attendance (Individual)	10	50
	Total	100	500

Course No. SRP 481
Credit 20(0+20)

Title Experiential Learning Programme
Semester VIII

Title of ELP Module I : Product Development & Entrepreneurship (RMCS/TAD)

Dept. of Resource Management and Consumer Science

1. Interior Design and Decoration
2. Tourism and Hospitality Management

Dept. of Textiles and Apparel Designing

1. Apparel Design Techniques- Flat Pattern and Draping
2. Fashion Illustrations

Title of ELP Module II : Community Nutrition and Welfare (HDS/FSN)

Dept. of Human Development and Studies

1. Production of educational learning material for children
2. Production of aids for Developmental Assessment of children
3. Preparation of creative activities manual and conduct of workshops

Dept. of Foods and Nutrition

1. Value added snacks
2. Functional food products
3. Preserved food products

Experiential Learning Programme -Work Schedule

S. No.	Activities	No. of weeks
1	Orientation to respective ELP modules	1
2	Market Survey	1
3	Product preparation & plan of execution	5
4	Execution of planned work including Marketing strategies and Quantum of product prepared	7
5	Report presentation (PPT) Including products made, sold, accounts keeping and cost effectiveness	2
6	Final viva-voce : HOD, ELP Incharge officer & ADP as External Examiner	--
	Total	16

**Experiential Learning Programme
Marking Scheme**

Sr. No.	Particular	% marks for each item	Allotted marks
1	Attendance, devotion, sincerity	10 %	100
2	Market Survey	5 %	50
3	Product preparation & execution plan	15 %	150
4	Execution of planned work	40 %	400
5	Marketing strategies	5 %	50
6	Quantum of product prepared	5 %	50
7	Report presentation (PPT) Including products made, sold, accounts keeping and cost effectiveness	10 %	100
8	Final viva-voce : HOD, ELP In-charge officer & ADP as External Examiner	10 %	100
	Total	100 %	1000

Note: The seed money required for Experiential Learning Programme will be given from Revolving Fund of College of Community Science. The profit gained will be distributed to the students as per the rules in vogue.