

SYLLABUS
for
Choice Based Credit System
(CBCS)

On the basis of
Outcome Based Education
(OBE)

M.A. HOME SCIENCE

PATNA WOMEN'S COLLEGE

Autonomous

PATNA UNIVERSITY

3rd Cycle NAAC Accredited at 'A' Grade with CGPA 3.58/4
"College with Potential for Excellence" (CPE) Status Accorded by UGC

Vision

Rooted in the life, vision, and teachings of Jesus Christ and inspired by Mother Veronica, the foundress of the Apostolic Carmel, Patna Women's College strives to become a centre of academic excellence in higher education, social responsibility, and empowerment of women.

Mission Statement

Patna Women's College, the first college for women in Bihar, is committed to the holistic development of women so as to make an effective contribution to the creation of a better society.

To this end, we strive

- To become a center of excellence in higher education for women in an atmosphere of autonomy.
- To excel in teaching-learning, research, and consultancy.
- To provide education that promotes capacity building and holistic development of a person.
- To offer subjects for competency building and motivate/animate a workforce imbued with human values.
- To promote patriotism, communal harmony and cultural integration to maintain a free and peaceful atmosphere on the campus.
- To train the students in creative arts, social service, critical thinking, and leadership in order to make an effective contribution to the creation of a new and value-based society.
- To create women leaders and to make them agents of social change.
- To develop skill oriented and value-based courses, for the all-round development of individuals.
- To promote academic exchange and academia-industry interface.
- To form young women who are 'always wise' and who will dare to 'go ahead and conquer knowledge' through, competence, commitment, delicate conscience, and compassion.

M.A. HOME SCIENCE

PO. No.	Programme Outcome
	Upon completion of Home Science Degree Programme, the graduates will be able to
PO-1	Understand and appreciate the role of interdisciplinary sciences in the development and well-being of individuals, families and communities
PO-2	Develop professional skills in food, nutrition, textiles, housing, product making, communication technologies and human development
PO-3	Effective Communication: Demonstrate proficiency in communicating competently in groups and organizations, competence in interpersonal communication
PO-4	Acquire scientific skills in the management of resources and develop basic skills for career options in the fields of dietetics, interior designing, textiles and fashion designing
PO-5	Environmental Consciousness: Discern the issues of environmental contexts and engages in promoting values

PSO. No.	Programme Specific Outcome
	Upon completion of these courses the graduates would
PSO-1	Apply knowledge of biochemistry and physiology to human nutrient metabolism and use the Nutrition Care Process to make decisions, identify nutrition-related problems and determine and evaluate nutrition interventions
PSO-2	Be efficient to nurture and take care of various age groups, to foster their healthy growth and development
PSO-3	Be empowered to take judicious decisions concerning the use of materials and resources and display competency in effective communication skills and use of media
PSO-4	Develop entrepreneurial skill towards start ups in fashion designing, tailoring unit, catering unit, nursery schools, family counselling centres, food processing centres and preservation units.
PSO-5	Engage in promoting social justice, gender sensitization, human rights and environmental consciousness
PSO-6	Gain theoretical and practical knowledge in research methodology and IT skills

Proposed Syllabus for M.A. in Home Science

Semester I - IV

Semester	Core Course (CC)	Discipline Specific Elective Course (DSE)	Generic Elective Course (GE)	Skill/Ability Enhancement Course (SEC)	Ability Enhancement Compulsory Course (AECC)
I	MHSC 101 : Advanced Nutrition				HSCM AEC101: Environmental Sustainability & Swachha Bharat Abhiyan Activities
	MHSC 102 : History and Theories of Human Development				
	MHSC 103 : Home Management and Ergonomics				
	MHSC 104 : Research Methodology and Statistics				
II	MHSC 205 : Food Science and Experimental Food			HSCM SEC201: Tourism & Hospitality Management	
	MHSC 206 : Maternal and Infant Nutrition				
	MHSC 207 : Communication Technology				
	MHSC 208 : Women's Studies				
	MHSC 209 : Management of Textile Crafts and Apparel Industry				
III	MHSC 310 : Food Processing				HSCM AECC301: Human Values, Professional Ethics & Gender Sensitization
	HSCM 311 : Institutional Food Management				
	HSCM 312 : Community Nutrition				
	HSCM 313 : Therapeutic Nutrition				
	HSCM 314: Practical				
IV		HSCM DSE404: Practical approach in writing research activities	HSCM GE401: Computer and IT skills		
		HSCM DSE405: Internship/Dissertation/ Project/ Seminar			

Course Structure for M.A. Home Science

<u>Semester -I</u>	<u>Semester -II</u>
Core Course 1: Advanced Nutrition	Core Course 5: Food Science and Experimental Food
Core Course 2: History and Theories of Human Development	Core Course 6: Maternal and Infant Nutrition
Core Course 3 : Home Management and Ergonomics	Core Course 7: Communication Technology
Core Course 4: Research Methodology and Statistics	Core Course 8: Women’s Studies
Ability Enhancement Compulsory Course (AECC)-I: Environmental Sustainability & Swachha Bharat Abhiyan Activities	Core Course 9: Management of Textile Crafts and Apparel Industry
	Skill Enhancement Course (SEC): Tourism & Hospitality Management
<u>Semester -III</u>	<u>Semester -IV</u>
Core Course 10: Food Processing	Discipline Specific Elective(DSE) I: Practical approach in writing research activities
Core Course 11: Institutional Food Management	Discipline Specific Elective(DSE) II: Internship/Dissertation/ Project/ Seminar
Core Course 12: Community Nutrition	Generic Elective (GE) – I: Computer and IT skills
Core Course 13: Therapeutic Nutrition	
Core Course 14: Practical	
Ability Enhancement Compulsory Course (AECC)-II: Human Values, Professional Ethics & Gender Sensitization	

Details of Credits for Courses under M.A. Home Science

Semester	Course	Theory	Practical	Tutorial	Total
<u>I. Core Course (14 Papers) – 05 credits each</u>					
I	1. Advanced Nutrition	5	-	-	5
	2. History and Theories of Human Development	5	-	-	5
	3. Home Management and Ergonomics	5	-	-	5
	4. Research Methodology and Statistics	5	-	-	5
II	5. Food Science and Experimental Food	5	-	-	5
	6. Maternal and Infant Nutrition	5	-	-	5
	7. Communication Technology	5	-	-	5
	8. Women's Studies	5	-	-	5
	9. Management of Textile Crafts and Apparel Industry	3	2	-	5
III	10. Food Processing	5		-	5
	11. Institutional Food Management	5			5
	12. Community Nutrition	5		-	5
	13. Therapeutic Nutrition	5			5
	14. Practical		5		5
<u>II. Elective Course – 05 credits each</u>					
A. 1. Discipline Specific Elective- DSE(2 papers)					
IV	1. Practical approach in writing research activities	-	5	-	5
	2. Internship/Dissertation/ Project/ Seminar	-	5	-	5
B. 1. Generic Elective / Interdisciplinary (1 paper)					
IV	1. Computer and IT skills	-	5	-	5
<u>III. Ability Enhancement Courses – 05 credits each</u>					
1. Ability Enhancement Compulsory (AECC)					
I	Environmental Sustainability & Swachha Bharat Abhiyan Activities	5	-	-	5
III	Human Values, Professional Ethics & Gender Sensitization	5	-	-	5
<u>II. Skill Enhancement Course (SEC)</u>					
II	1. Tourism & Hospitality Management	5	-	-	5
TOTAL					100

M.A. Home Science

Note: 1 credit = 15 hours

1. **Theory paper: 5 credits each**
3. **Practical paper: 5 credits each**
4. **Practical paper will not have tutorials.**

Core Courses (5 credits each)

Core Course: A course, which should compulsorily be studied by a candidate as a core requirement is termed as a Core course.

Semester I

1. Advanced Nutrition (Theory)
2. History and Theories of Human Development (Theory)
3. Home Management and Ergonomics (Theory)
4. Research Methodology and Statistics (Theory)

Semester II

5. Food Science and Experimental Food (Theory)
6. Maternal and Infant Nutrition (Theory)
7. Communication Technology (Theory)
8. Women's Studies (Theory)
9. Management of Textile Crafts and Apparel Industry (Theory + Practical)

Semester III

10. Food Processing (Theory)
11. Institutional Food Management (Theory)
12. Community Nutrition (Theory)
13. Therapeutic Nutrition (Theory)
14. Practical

Skill Enhancement Course (SEC)(5Credits)

Skill Enhancement Courses (SEC): These courses may be chosen from a pool of courses designed to provide **skill-based knowledge**.

Semester II

1. Tourism & Hospitality Management

Discipline Specific Elective (DSE) (5 credits each)

Discipline Specific Elective (DSE) Course: Elective courses may be offered by the main discipline/subject of study is referred to as Discipline Specific Elective. The University/Institute may also offer discipline related Elective courses of interdisciplinary nature (to be offered by main discipline/subject of study).

Semester IV

DSE-1

1. Practical approach in writing research activities (Practical)

DSE-2

2. Internship/Dissertation/ Project/ Seminar (Practical)

Generic Elective Papers (GE) (5 credits each)

Generic Elective (GE) Course: An elective course chosen generally from an unrelated discipline/subject, with an intention to seek exposure is called a Generic Elective.

P.S.: A core course offered in a discipline/subject may be treated as an elective by other discipline/ subject and vice versa and such electives may also be referred to as Generic Elective.

Semester IV

1. Computer and IT skills (Practical)

M.A. Home Science Details of CBCS Syllabus

Core Courses (5 credits each)

Core Course: A course, which should compulsorily be studied by a candidate as a core requirement is termed as a Core course.

SEMESTER – I

Course Opted	Course Name	Credits
HSCM 101	Advanced Nutrition	5(5+0)
HSCM 102	History and Theories of Human Development	5(5+0)
HSCM 103	Home Management and Ergonomics	5(5+0)
HSCM 104	Research Methodology and Statistics	5(5+0)
HSCM AEC101	Environmental Sustainability & Swachha Bharat Abhiyan Activities	5(5+0)
	Total	25

Course Title	Core Course 1 Advanced Nutrition		
Code	MHSC CC101		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO – 1	Able to understand the techniques of measuring energy expenditure in individuals.	PSO-1	U, R
CO – 2	Understand the metabolism of protein and know the role of DNA and RNA in protein synthesis.	PSO-1	U, R
CO – 3	Acquaint with lipid and carbohydrate metabolism and learn the mechanism adopted by the human body for regulation of metabolic pathways.	PSO-1	U, R
CO – 4	Critically evaluate and derive requirements for specific macronutrients.	PSO-1	E, Ap

MHSC 101 : PWC		Advanced Nutrition (Theory: 5 credits)
Unit	Topics to be covered	No. of hours
1	Energy Metabolism <ul style="list-style-type: none"> • Determination of energy value of food – Bomb calorimeter • Basal metabolic rate – Measurement and factors affecting basal metabolic rate • Measurement of energy requirement of an individual with reference to man and women 	10
2	Proteins <ul style="list-style-type: none"> • Classification of protein & amino acids • Structure, properties and functions of protein • Metabolism of proteins, protein synthesis • Assessment of protein quality • Plasma proteins • Structure and Functions of DNA and RNA 	20
3	Lipids <ul style="list-style-type: none"> • Classification of Lipids • Structure, properties and functions of Lipids • Metabolism and nutritional significance of lipids • Biosynthesis of cholesterol and its functions 	15
4	Carbohydrates <ul style="list-style-type: none"> • Classification of carbohydrates • Structure, properties and functions of carbohydrates • Metabolism of carbohydrates • Altered metabolism of carbohydrates in diabetics • Glycemic index • Role of hormones in carbohydrate metabolism (insulin, thyroid and adrenal cortex) 	20
5	Micronutrients and their role in metabolism (vitamin A, Calcium, Iron and Iodine)	10
	TOTAL	75

Reading List

1. Swaminathan, M. (2015), Advance text book on Food and Nutrition Vol. II,
2. Insel, Paul, Turner, R. Elaine and Ross, Don (2007), Nutrition, 3rd Edition, Jones and Bartlett Publishers, Sudbury, Massachusetts, Boston.
3. Deb, A.C., (2001), Fundamentals of Biochemistry, 7th Edition, New Central Book Agency, Kolkata.
4. Srivastava, H. S., (2010). Elements of Biochemistry, Rastogi Publications
5. A.K. Bery: Few RasayankiPathyaPustika

Course Title	Core Course 2 History and Theories of Human Development		
Code	MHSC CC102		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO – 1	Describe and recall the scope and principles of human development	PSO-2	R
CO – 2	Summarise the early childhood theories	PSO-2	U,R
CO – 3	Demonstrate and analyze social learning theories	PSO-2	Ap
CO – 4	State and discuss different intelligence test and theories	PSO-2	U, An

MHSC 102 : History and Theories of Human Development PWC (Theory: 5 credits)		
Unit	Topics to be covered	No. of hours
1	Introduction to Development <ul style="list-style-type: none"> • A brief History of Child Development: Definition, Scope and Objectives • Principles of Development 	10
2	Developmental Theories <ul style="list-style-type: none"> • Piaget’s Cognitive Development Theory • Freud’s Psycho-analytic Theory • Freud’s Psychosexual Theory • Erikson’s Psychosocial Theory 	20
3	Early Childhood Theories of <ul style="list-style-type: none"> • Locke • Rousseau • Tagore • Gandhi 	20
4	Social Learning Theories <ul style="list-style-type: none"> • Pavlov • B.F. Skinner 	10
5	Theories of Intelligence <ul style="list-style-type: none"> • Different Theories of Intelligence • Types of Intelligence Tests 	15
	TOTAL	75

Reading List

1. Crain, W. (1992). Theories of Development, Concept and Application, New Jersey: Prentice Hall.
2. Vasta, R. (1992). Six Theories of Child Development - Revised Formulation and Current Issues. Sessica Kingsley Publishers Ltd., London
3. Smith, J.A., Harre, R. and Van Langehove, L. (1995). Rethinking Psychology, Sage Publications, London.
4. Rice, F.P. (1995). Human Development, New Jersey: Prentice Hall
5. Santrock, J.W. & Yussen, S.R. (1988). Child Development: An Introduction Iowa: Wm. C Brown Publishers
6. Cole, M. & Cole, S. (1993). The Development of Children (2nd Ed) New York:Scientific American Books Freeman & Co.

Course Title	Core Course 3 Home Management and Ergonomics		
Code	MHSC CC103		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO – 1	Know Management system and Family resource management and the important features of management process	PSO-3	U, R
CO – 2	State different aspect of the ergonomics and their nature	PSO-3	U
CO – 3	Acquire the knowledge of time and energy management in study of ergonomics.	PSO-3	An
CO – 4	Describe and appreciate the work simplification and time motion economy.	PSO-3	U

MHSC 103 : Home Management and Ergonomics		
PWC (Theory: 5 credits)		
Unit	Topics to be covered	No. of hours
1	Management as a system <ul style="list-style-type: none"> • Definition • Elements • Types • Application in family resource management 	10
2	Management process <ul style="list-style-type: none"> • Planning – objectives, principles, strategies, policies • Organizing – purpose, process, delegation, authority, responsibility and accountability, staffing, purpose, recruitment, appraisal directing, leadership, motivation and communication • Controlling and its tools • Appraisal • Evaluation 	20

3	Ergonomics <ul style="list-style-type: none"> • Scope and nature of ergonomics in household and other occupation • Types of ergonomics • Principles of ergonomics • Objectives of ergonomics 	20
4	Time and Energy management in study of ergonomics: <ul style="list-style-type: none"> • Strategies, value, technique, process and cycle 	10
5	Work simplification and time motion economy <ul style="list-style-type: none"> • Steps, method, advantages, techniques, ways of simplified work, tools and equipment, time motion economy 	15
	TOTAL	75

Reading List

1. Swanson, B. Bettye, Introduction Home Management, Macmillan Publishing Company
2. Sherwood, F. Ruth, (2006).Home – Today & Tomorrow McGraw Hill Pub.
3. Agan, Tersie, The House – its plan and use, M.S. Oxford & IBH Publishing House
4. Grandall, Gross, Management for Modern families, Knoll Prentice Hall, International INC, Englewood, New Jersey
5. Patni, Manju, (2010). GrihPrabanth
6. Singh, Brinda, GrihPrabandh and GrihVyavastah,PanchsheelPrakashan, Jaipur
7. Pheasant, Stephen, (2005).Bodyspace –Anthropometry Ergonomics and the Design of Work, 3rd ed., Custom Publishing
8. Salvendy, Gavriel, (2002).Handbook of human Factors and Ergonomics,4thEdition,Wiley Pub.
9. Khan, M.I., (20101). Industrial Ergonomics, PHI Learning Pvt. Ltd.
10. Singh, Lakhwider, Pal, (2016).Work Study and Ergonomics, Cambridge University Press.

Course Title	Core Course 4 Research Methodology and Statistics		
Code	MHSC CC104		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO – 1	Demonstrate knowledge of the scientific method, purpose and approaches to research	PSO-6	Ap
CO – 2	Compare and contrast quantitative and qualitative research	PSO-6	E, Ap
CO – 3	Describe sampling methods, measurement scales and instruments, and appropriate uses of each.	PSO-6	E, Ap
CO – 4	Use appropriate parametric and non parametric statistical tests and draw conclusions and interpretations from the analysis of data using various statistical methods.	PSO-6	An, Ap

MHSC 104 : Research Methodology and Statistics		
PWC (Theory: 5 credits)		
Unit	Topics to be covered	No. of hours
	Section A: Research Methodology	
1	Foundation of Scientific Research <ul style="list-style-type: none"> • Research – meaning and definition • Need of research in Home Science • Necessary consideration for selecting a research problem <ul style="list-style-type: none"> - Selection and formulation of research problem - Specifying objectives - Formulating hypothesis - Deciding variables 	05
2	Stages/ steps involved in research process <ul style="list-style-type: none"> • Research problem • Literature Review • Hypothesis • Variables • Methodology: sample, sampling technique, tools and tests, statistical devices • Pilot study • Test administration and data collection • Scientific generalization • Preparing the research report 	12
3	Sample and Sampling techniques <ul style="list-style-type: none"> • Sample – Meaning, characteristics of a good/ scientific sample • Sampling techniques: <ul style="list-style-type: none"> • Probability sampling – Meaning and types • Non-probability sampling – Meaning and types 	06
4	Research Tools <ul style="list-style-type: none"> • Observation • Questionnaire • Interview • Case study 	07
5	Concept of data <p>a. Types of data – Primary data and secondary data Qualitative and quantitative data</p> <p>b. Analysis of data – Qualitative and quantitative data analysis</p>	05
	Statistics	
6.	Meaning and characteristics of statistics, definition, importance, classification, tabulation, frequency curve, histogram and pie chart	10

7.	Measure of central tendency <ul style="list-style-type: none"> • Mean – definition, merits, demerits and related programs • Median – definition, merits, demerits and related program • Mode – definition, merits, demerits and related program 	08
	Measure of dispersion – meaning and types of dispersion, range, quartile deviation, standard deviation related problems, characteristics of dispersion	08
	Correlation – definition, methods of correlation, product moment (Pearson) and rank difference	07
	Normal probability curve – definition and characteristics of normal probability curve, definition, types of skewness and kurtosis	07
	TOTAL	75

Reading List

1. Bell, J. (1997). *Doing Your Research Project: A Guide for First-time Researchers in Research process Education and Social Science*, Viva Books, New Delhi
2. Festinger, L. and Katz, D. (ed.) (1977). *Research Methods in the Behavioural Sciences*, Amerind Publishing, New Delhi
3. Holloway, I. (1997). *Basic Concepts of Qualitative Research*, Blackwell Science, London.
4. Jain, G. (1998). *Research Methodology: Method and Techniques*, Mangal Deep, Jaipur
5. Kothari, C.R. (2000). *Research Methodology: Method and Techniques*, WishawaPrakashan, New Delhi
6. Kumar, A. (2000). *Research methodology in Social Sciences*, Sarup and Sons, New Delhi.
7. Pande, G.C. (1999). *Research Methodology in Social Science*, Anmol Publication, New Delhi
12. Gupta, S. (2001). *Research Methodology and Statistical Techniques*, Deep and Deep, New Delhi
13. Dey, B.R. (2005). *Textbook of Managerial Statistics*, Macmillan India Ltd. Delhi
14. Sarma, K.V.S. (2001). *Statistics made simple: Do it yourself on PC*, Prentice-Hall, New Delhi
15. Das, M.N. (1989). *Statistical Methods and Concepts*, New Age, New Delhi
16. Elhance, D.N. (2000). *Fundamentals of Statistics [containing more than 750 solved and 1250 problems for review exercise]*, Kitab Mahal, Allahabad
17. Goon, A. & Gupta, M & Dasgupta, B. (2001). *Fundamentals of Statistics, Vol. 1 & II*. The World Press, Calcutta
18. Gupta, S.C. (2000). *Fundamentals of Statistics*, Himalaya Publications, Mumbai
19. Gupta S.P. (2000). *Statistics Methods*, Sultan Chand & Sons, New Delhi
20. Shenoy, G.V. & Pant, M. (2006). *Statistics Methods in Business and Social Science*, Macmillan India Ltd., Delhi
21. Spiegel, Murray R. (1998). *Schaum's Outline of Theory and Problems of Statistics*, 3rd ed. Tata McGraw-Hall Publications, New Delhi
22. Triola, Mario F. (1998). *Elementary Statistics*, 7th ed. Addison Wesley Longman, America

SEMESTER – II

Course Opted	Course Name	Credits
HSCM 205	Food Science and Experimental Foods	5 (5+0)
HSCM 206	Maternal and Infant Nutrition	5 (5+0)
HSCM 207	Communication Technology	5 (5+0)
HSCM 208	Women's Studies	5 (5+0)
HSCM 209	Management of Textile Crafts and Apparel Industry	5(3+2)
HSCM SEC 201	Tourism and Hospitality Management	5 (3+0)
TOTAL		30

Course Title	Core Course 5 Food Science and Experimental Food		
Code	MHSC CC205		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO – 1	Gain knowledge about food science and acceptability of food	PSO-1	U
CO – 2	Learn the properties, sources and uses of carbohydrate and protein foods, experiment various method of cooking and preservation to retain/enhance the nutritional quality	PSO-1	U, Ap
CO – 3	Know the classification, composition, cooking and preservation methods of vegetables and fruits	PSO-1	U, R
CO – 4	Describe the uses of nuts, oilseeds, beverages and appetizers in cookery	PSO-1	An

MHSC 205 : Food Science and Experimental Foods		
PWC (Theory: 5 credits)		
Unit	Topics to be covered	No. of hours
1	Introduction to food science <ul style="list-style-type: none"> Aims and objectives of the study of food science Food acceptability by variation in colour, flavour and texture Physiochemical properties of food 	5
2	Carbohydrates in foods <ul style="list-style-type: none"> Sugar – Sources, properties and uses, stages of sugar cookery Starch – Sources, properties and uses, processed cereal products 	10
3	Protein cookery <ul style="list-style-type: none"> Pulses – composition, methods of cooking, germination and fermentation Meat – structure, common types, changes occurring during cooking of meat Fish – types, characteristics of fresh fish, cooking and preservation Egg – structure, methods of cooking, uses of egg in different Preparations Milk – composition, effect of heat on milk, uses in cookery Objectives of ergonomics 	25
4	Vegetables and fruits <ul style="list-style-type: none"> Classification, composition, colour / pigments, effects of cooking on vegetables Fruits- Classification, composition, effect of heat and methods of preservation 	20
5	<ul style="list-style-type: none"> Nuts and oilseeds – composition and uses in cookery Beverages and appetizers – coffee, tea, fruit beverages and alcoholic beverages, milk based beverages, carbonated, non-alcoholic beverages and alcoholic beverages 	15
	TOTAL	75

Reading List

1. Charley H. (1982). Food Science, 2nd Edition, John Wiley and Sons, New York
2. Potten N and Flotch Kiss. JH (1996). Food Science, 5th Edition, CBS Publishers and Distributors, New Delhi
3. Swaminathan M., Food Chemistry and Experimental Foods, Ganesh & Co., Madras
4. Sri Laxmi, (2005). Food Science, 3rd Edition, New Age International Publisher

Course Title	Core Course 6 Maternal and Infant Nutrition		
Code	MHSC CC206		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO – 1	Memorize and interrelate physiology and nutritional requirements of pregnancy	PSO-1, 2	R, U
CO – 2	Interrelate and measure the background and complications of lactation	PSO-1	U, E
CO – 4	Distinguish and appraise management of preterm and LBW babies	PSO-1	U, An, E
CO – 4	Recite the policies and programmes for safe motherhood	PSO-1	R

MHSC 206 : Maternal and Infant Nutrition		
PWC (Theory: 5 credits)		
Unit	Topics to be covered	No. of hours
1	<ul style="list-style-type: none"> • Important of Maternal nutrition prior to and during pregnancy, Effect of under nutrition on mother-child health, including pregnancy • Physiology and endocrinology of pregnancy and embryonic and fetal growth and development • Nutritional requirement during pregnancy • Complications of pregnancy and management and importance of antenatal care of at-risk mothers • Congenital malformation, fetal alcohol syndrome and gestational diabetes mellitus 	20
2	<ul style="list-style-type: none"> • Lactation • Development of mammary tissue and role of hormones • Human milk composition and factors affecting breast feeding and Fertility Management of lactation – breast feeding, Rooming in problems – sore nipples, engorged breast, inverted nipples etc. 	15
3	<ul style="list-style-type: none"> • Care and management of the preterm and LBW infants • Implications for feeding and management 	10
4	<ul style="list-style-type: none"> • Menopause • Sign and symptoms • Problems • Management of dietary needs and health 	15
5	<ul style="list-style-type: none"> • Policies and programmes for promotion maternal and child nutrition and health 	15
	TOTAL	75

Reading List

1. Swaminathan, M. Food and Nutrition
2. Singh, Vrinda, Aahar Evam Poshan
3. Tandan, Usha, Manav Sharir Rachana Evam Kriya Vigyan
4. Khanuja, Reena, Aahar Evam Poshan Vigyan
5. Sinha, Archana, Health Matters
6. Elizabeth, K. E., Nutrition and Child Development, 4th Edition

Course Title	Core Course 7 Communication Technology		
Code	MHSC CC207		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO – 1	Understand various aspect of communication technology and identify different forms of communication	PSO-3	U, R
CO – 2	Describe different types of Mass Media and their uses.	PSO-3	R
CO – 3	Discuss emerging information communication technology and its use in extension work	PSO-3	U, An
CO – 4	State adoption and diffusion process.	PSO-3	U

MHSC 207 : Communication Technology		
PWC (Theory: 5 credits)		
Unit	Topics to be covered	No. of hours
1	Concept of Communication <ul style="list-style-type: none"> • Definition, meaning and nature of communication • Process, elements and models of communication • Barriers in communication 	20
2	Forms of Communication <ul style="list-style-type: none"> • Verbal and non-verbal • Intra, inter, group, mass 	10
3	Mass Media <ul style="list-style-type: none"> • Types, roles and characteristics • Uses of – Electronic and traditional media 	15
4	Adoption and Diffusion <ul style="list-style-type: none"> • Concept of adoption • Innovation and diffusion • The Adoption process • The Innovation – Decision process • Adopter categories 	15

5	Introduction to Information Communication Technology (ICT)	15
	<ul style="list-style-type: none"> Satellite broadcasting, electronic media and computer Technology Role of ICT in Extension work and development 	
	TOTAL	75

Reading List

- Dale (1964). Audio-visual Methods of Teaching, Holt, Rinhart and Wintson, London.
- Brown et al (1983). A.V. Instruction Technology, Media and Methods, 6th Edition, Mc Graw Hill Book Co., New York.
- Joshi Uma (1997). Text book of Mass Communication and Media, Anmol Publications, New Delhi.
- Joshi Uma (2001). Understanding Development Communications: Domincent Publishers, New Delhi.
- Sandhu, Anoop, Singh (1996). Extension Programme Planning, Oxford and JBH

Course Title	Core Course 8 Women's Studies		
Code	MHSC CC208		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO – 1	Create awareness about the status of women in India	PSO-5	C
CO – 2	Learn the history and relevance of women's studies	PSO-5	U
CO – 3	Familiarize with the issues and problems of women in India	PSO-5	U
CO – 4	Understand the personal and civil laws related to women and know existing Women's Welfare Programmes	PSO-5	U

MHSC 208 : PWC		Women's Studies (Theory: 5 credits)
Unit	Topics to be covered	No. of hours
1	Women in India: <ul style="list-style-type: none"> Civilization down the ages Status of Women in ancient India-Vedic age, Pauranic Period, Mauryan Period, Gupta, Medieval, Feudal Period, Buddhist Period, British Period, Women in Post-independence period 	20
2	<ul style="list-style-type: none"> Relevance of Women's Studies Sources and growth of Women's Studies 	10

3	Issues related to Crime against Women in India <ul style="list-style-type: none"> • Child marriage • Female feticide • Dowry • Sati • Honor killing • Rape and Sex abuse • Trafficking • Domestic Violence 	15
4	Personal and Civil Laws related to Women <ul style="list-style-type: none"> • Dowry prohibition Act • Divorce and maintenance Law • Marriage Registration Act • Domestic Violence Act 2005 • Pre-Natal Diagnostic Act • Laws against feticides • Medical Termination of Pregnancy (MTP) Act, 1971 • Immoral Traffic Prevention Act • Indecent Representation of Women (Prohibition) Act 1986 • Law against Sexual Harassment at workplace 	20
5	Women's Welfare Programme	10
	TOTAL	75

Reading List

1. Asthana, P. (1974). Women's Movement in India, Vikas Publications, Delhi
2. Antony, M.J. (1985). Women's Rights: Dialogue, New Delhi
3. Okim, S.M. (1989). Justice, Gender and Family, Basic Book, New York
4. Pant, N. (1995). Status of Girl Child and Women in India, Delhi, APH
5. Srivastava, T.N. (1985). Women & Law, Intellectual, New Delhi
6. Baker, H.A., Berheide, G.W. and Others (Eds), 1980, Women Today: A Multidisciplinary Approach to Women's Studies, Books/ Cole Publications
7. Desai, N. & Patel, V., Indian Women: Change and Challenges in the International Decade, Popular Prakshan, Bombay
8. Gupta, N.K & Sudan, I.K., (1990). Women at work in Developing Economy, Amol, New Delhi
9. Parashar, A., (1992). Women and Family Law reforms in India: Uniform Civil Code and Gender Equality, Sage Publications, New Delhi
10. Agrawal, Namita, Women and law, New Century Publication, New Delhi
11. Vianellow, M. & Siemienska, R., (1990). Gender Inequality: A Comprehensive Study of Discrimination and Participation, Sage Publications, London
12. Sharma, U. (1989). Brides are not for burning: Dowry Victims in India, Radiant, New Delhi

Course Title	Core Course 9 Management of Textile Crafts and Apparel Industry		
Code	MHSC CC209		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO – 1	Understand the origin of technique and design with reference to colours, motifs, layouts of different traditional textiles crafts of India.	PSO-4	U
CO – 2	Understand the role of textile crafts and handicraft sector in the national economy.	PSO-4	U
CO – 3	Understand the role and impact of mass media on fashion	PSO-4	U
CO – 4	Knowledge of merchandising activities in a retail setup and prepare various samples of textile crafts	PSO-4	U, Ap

MHSC 209 : Management of Textile Crafts and Apparel Industry		
PWC (Theory 03 Credits + Practical 02 Credits)		
Unit	Topics to be covered	No. of hours
1	Study of Textile Crafts of India : history, production centers, techniques, designs, colors and products <ul style="list-style-type: none"> • Woven textile of India – Banaras Brocades, Jamdanis and Baluchars of Bengal, Kanni Shawls of Kashmir • Embroidered textiles of India – Kantha of Bengal, Kasuti of Karnataka, Phulkari of Punjab, Chickankari of Uttar Pradesh, Kashida of Kashmir • Painted and Printed textiles of India – Kalamkari of Andhra Pradesh, Dabu printing of Rajasthan, Ajarakh prints of Gujrat • Dyed textiles of India – Bandhanis of Rajasthan and Gujrat, Ikats-Patola of Gujrat, Bandhas of Orissa, Pochampalli of Andhra Pradesh 	17
2	Elements used in creating a design <ul style="list-style-type: none"> • Color – Color harmony, its sensitivity and composition in dress Motif development – Geographical, simplified, naturalized, stylized, abstract and ornamental • Components of fashion – Silhouette, details, color, fabric, texture 	8
3	Principles of Merchandising <ul style="list-style-type: none"> • Types of merchandising • Role of retailing in merchandising • Visual Merchandising – Plan & Schedules, Types of display, Elements of display 	7

4	Role of Mass Media in Fashion <ul style="list-style-type: none"> • Role of Mass Media in promoting fashion • Impact of Mass Media on fashion 	05
5	Cultural and Economic Empowerment through Textile Crafts <ul style="list-style-type: none"> • Textile crafts in National economy • Evolution and socio-economic significance of Khadi, Handloom and Handicraft sector • Sustenance of traditional textile crafts • Interventions by organizations 	8
	Practical: Prepare samples of various traditional textiles of India mentioned in Unit I (Theory)	30
	TOTAL	75

Reading List

1. Anderson, J. Black, Muidge, Garland, A History of Fashion, Orbis Publishing Ltd., London.
2. Broucher, Francois, A History of Costume in the West, Thames and Hudson.
3. Tete, Sharon Lee, Inside Fashion Design, Harper and Row Publishers, New York.
4. Kathryn Samuel, Life Styles, Fashion Styles, Orbis Publishing Ltd., London.
5. Carter E. (1977), The Changing World of Fashion, G.P. Putnam's Sons, New York.
6. Carr H. and Pomery J. (1992), Fashion Design and Product Development, Blackwell Scientific Publications, London, Edinerg.
7. Complete guide to Sewing. Reader's Digest Association, New York.
8. Hill, McGraw, (1973). Creative Clothing Construction

SEMESTER – III

Course Opted	Course Name	Credits
HSCM 310	Food Processing	5 (5+0)
HSCM 311	Institutional Food Management	5 (5+0)
HSCM 312	Community Nutrition	5 (5+0)
HSCM 313	Therapeutic Nutrition	5 (5+0)
HSCM 314	Practical (310+311+312+313)	5 (0+5)
HSCM AECC 301	Human Values, Professional Ethics & Gender Sensitization	5 (5+0)
	Total	30

Course Title	Core Course 10 Food Processing		
Code	MHSC CC310		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO – 1	Learn the various classes of microorganism and their effects on food and consumer	PSO-1	U
CO – 2	Learn and use different methods of food preservation and processing	PSO-1	U, Ap
CO – 3	Understand the basic principle and procedure in the production of new categories of foods and know techniques of packaging and labelling	PSO-1	U, Ap
CO – 4	Understand food standard and related laws regarding food safety and quality	PSO-1	U

MHSC 310: PWC		Food Processing (Theory: 5 credits)
Unit	Topics to be covered	No. of hours
1	Food spoilage, role of microorganism, food borne hazards of microbial origins	10
2	Food preservation- Principles and Methods: <ul style="list-style-type: none"> Physical principles in undertaking food processing operations including thermal processing, ionizing radiation, refrigeration, freezing and dehydration, minimal processing 	20
3	Basic principles of food product development, need and types of new food <ul style="list-style-type: none"> Extruded foods: merits, demerits and uses Organic foods: processing and packaging, programme for production Product evaluation techniques: sensory evaluation and product testing Fermentation technology: fermentation, enrichment and fortification 	20
4	Packaging techniques: types of packaging, packaging materials, effect of packaging on nutritive value of foods, latest trends in packaging Food labelling: Definition, Principles, nutrition labelling, research and testing	15
5	Food standards and laws Food additives: food colour, flavouring agents, preservatives, anti-oxidants, emulsifying agents and stabilising agents	10
	TOTAL	75

Reading List

1. Reddy, Y.S., (2012). Food Processing Bioactive Compounds. New Delhi, Astral International (P) Ltd.
2. Aylword, F., (2012). Food Technology: Processing and Laboratory Control. Jodhpur, Agrobios (India)
3. Potter, Norman N., Hotchkiss, Joseph, H., (1996). Food Science. CBS Publishers & Distributors Pvt. Ltd.
4. Sivasankar, B., (2003) Food Processing and Preservation. New Delhi, Prentice-Hall of India Pvt. Ltd.
5. Kalia Manoranjal, Sood Sangita, (2008). Food Preservation and Processing. New Delhi, Kalyani Publishers
6. Frazier, C. William, Westhoff C. Dennis, (2008). Food Microbiology, 4th Edition. New Delhi: Tata McGraw-Hill Publishing Company Ltd.
7. Sinha, Satyaprakash, (2009). Principles of Food Processing. New Delhi, Adhyayan Publishers and Distributors.
8. Khetarpaul, Neelam, (2005). Food Processing and Preservation. Delhi: Daya Publishing House
9. Mahindru, S.N., (2014). Food Additives – Characteristics, Detection and Estimation. New Delhi, APH Publishing Corporation

Course Title	Core Course 11 Institutional Food Management		
Code	MHSC CC311		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO – 1	State and discuss planning and management of food service system	PSO-4	U, An
CO – 2	Recognize and apply the concept of quality and quantity food production and management	PSO-4	U
CO – 3	Describe and identify the delivery and services of foods in different systems	PSO-4	U, R
CO – 4	Recognize and state the concept of food service management in various educational institutions	PSO-4	R, An

MHSC 311:			Institutional Food Management
PWC			(Theory: 5 credits)
Unit	Topics to be covered	No. of hours	
1	Food service systems and their development An introduction to food service industry	08	
2	Food service system planning and management Planning <ul style="list-style-type: none"> • Strategies in planning • Kitchen layout planning • Pricing of product Management <ul style="list-style-type: none"> • Organization and management • Personnel management • Cost control • Sanitation and safety 	20	
3	Food service operations Food management <ul style="list-style-type: none"> • Menu planning • Food purchase Quality food production <ul style="list-style-type: none"> • Kitchen production • Quantity food equipment 	20	
4	Service management <ul style="list-style-type: none"> • Delivery and service of foods in different systems 	12	
5	Food service Management in educational institutions: <ul style="list-style-type: none"> • preschool, primary and secondary Schools , colleges and universities 	15	
	TOTAL	75	

Reading List

1. West, Bessie Brooks, Wood Levelle, (1977). Food Service in Institutions. John Willey and Sons
2. Simon Bimla, Sharma Kumkum, (1995). Ahar Sewa Prabandhan. Patna: Novelty and Company
3. Sethi Mohini, (2004). Institutional Food Management. New Delhi: New Age International Publishers
4. Sharma, S. Jyoti, (2006). Catering Management Practices. New Delhi: Akansha Publishing House
5. Nathaniel, R.S., (1991). Catering Management (For Hotels, Restaurants and Institutions). New Delhi: Surjeet Publications.
6. King's, (2006). Personnel Management and Industrial Relations. Delhi: Harsha Rastogi Proprietor.
7. Parmar, Neha, (2015). Kitchen, Catering, Buffet, Beverage and Banquet Management. New Delhi: Oxford Book Company
8. Kadam, KCK Rakesh, Chainickaa, VRK, (2016). Food and Beverage Service and Operation Management. New Delhi: UDH Publishers and Distributors (P) Ktd.

Course Title	Core Course 12 Community Nutrition		
Code	MHSC CC312		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO – 1	Familiarize with the concept of public health nutrition and acquire skills in nutritional assessment	PSO-1	U, Ap
CO – 2	Create an awareness regarding assessment of nutritional status of individuals and community.	PSO-1	C
CO – 3	Understand the National and International agencies involved in women and child welfare.	PSO-1	U
CO – 4	Comprehend the National Health Care Delivery System.	PSO-1	U, R

MHSC 312:		
PWC		
Community Nutrition		
(Theory: 5 credits)		
Unit	Topics to be covered	No. of hours
1	Concept of public nutrition, relationship between health and nutrition <ul style="list-style-type: none"> • Nutritional problems prevalent in India and measures to combat them. • Bone health problems and dietary management 	10
2	Assessment of nutritional status: <ul style="list-style-type: none"> • Direct: anthropometry, clinical and biochemical • Indirect: vital statistic and diet survey 	20

3	Nutrition education: objectives, planning, evaluation of nutrition education programmes. Selection of effective nutrition education method.	10
4	National and international agencies involved in women and child welfare: <ul style="list-style-type: none"> • National agencies: ICDS, ICMR, ICAR, NIPCCD • International agencies: WHO, FAO, UNICEF 	15
5	Indicators of health: mortality indicator, morbidity indicator, disability rates, nutritional status indicator, health care delivery indicators, utilization rates, indicator of social and mental health, environmental indicator, socio-economic indicators, health policy indicator, indicator of quality of life. Primary health care of the community: national health care delivery system.	20
	TOTAL	75

Reading List

1. Verma, Pramila, Pandey Kanti (2000). Ahar Ewam Poshan Vigyan. Bihar Hindi Granth Academy
2. Park, K., (2005). Park's Textbook of Preventive and Social Medicine, 18th edition. Jabalpur, Banarsidas Bhanot Publishers.
3. Lal, S., Adarsh, Oankaj (2009). Textbook of Community Medicine, 3rd edition, New Delhi, CBS Publishers and Distributors (P) Ltd
4. Bamji, M.S., Rao, N.P., Reddy, V., (2004). Textbook of Human Nutrition, 2nd edition. New Delhi, Oxford and IBH Publishing Company Pvt. Ltd.
5. Bhalvar R., Tilak R., Jindal A. K., *et al* (2013). Textbook of community Medicine. New Delhi, United India Periodicals (P) Ltd.
6. Sharma R. L. (1998). Community Health and Family Welfare, 1st edition. Jaipur, Research Publications.
7. Singh Brinda (2004). Jan Swasthya ewam pariwar Kalyan, 3rd edition. Jaipur: Panchsheel Prakashan.
8. Swaminathan M. S. (2015). Advanced Textbook on Food and Nutrition, Volume I, Paperback edition. Bangalore, The Bangalore Printing and Publishing Co. Ltd.

SEMESTER – III

Course Title	Core Course 13 Therapeutic Nutrition		
Code	MHSC CC313		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO – 1	Express and sketch meal planning	PSO-1	U, Ap
CO – 2	Interpret and compute dietary modification for different diseases	PSO-1	U, Ap, An
CO – 3	Select components of safe motherhood and menopause	PSO-2	R, U
CO – 4	Sketch dietary counselling, and diet planning	PSO-4	U, Ap

<u>MHSC 313:</u> Therapeutic Nutrition		
PWC (Theory: 5 credits)		
Unit	Topics to be covered	No. of hours
1	Importance of health Importance of modification diet, factors to be considered while planning therapeutic diet.	10
2	Prevalence, aetiology, biochemical and clinical manifestations and therapeutic measurements of the following <ul style="list-style-type: none">• Diabetes mellitus• Nutritional anaemia• Liver disorders: jaundice, hepatitis• Diseases of the cardiovascular system	25
3	Cancer: types, causes, symptoms and dietary management Renal diseases: classification, aetiology, symptom and dietary management	17
4	Safe motherhood Menopause and its problems	13
5	Dietary counselling: need and objectives Dietary counselling: steps and techniques	10
	TOTAL	75

Reading List

1. Swaminathan M. S. (2015). Advanced Textbook on Food and Nutrition, Volume II, Paperback edition. Bangalore, The Bangalore Printing and Publishing Co. Ltd.
2. Singh, Brinda, (2013). Ahar Vigyan Evam Poshan, 3rd edition. Jaipur, Panchsheel Prakashan.
3. Rao Janaki P (2006). Nutrition and Food Science. Jaipur, Avishkar Publishers and Distributors.
4. Joshi, Shubhangini M., (2015) Nutrition and Dietetics, 4th edition. New Delhi, McGraw Hill Education Private Limited.

5. Srilakshmi, B. (2011). Dietetics, 6th edition. New Delhi, New Age International (P) Ltd.
6. Antia, F. P., Abraham, P. (2011). Clinical Dietetics and Nutrition, 4th edition. New Delhi, Oxford University Press.
7. Lutz Carrol and Przytulski Karen (2001). Nutrition and Diet Therapy, 3rd edition. Philadelphia, F.A. Davis Company.
8. Mudambi S.R., Rajagopal M.V. (2007). Fundamentals of Foods, Nutrition and Diet Therapy. New Delhi, New Age International (P) Ltd.

MHSC 314: MHSC 310 + MHSC 311 + MHSC 312 + MHSC 313)		
PWC (Practical: 05 credits)		
Unit	Topics to be covered	No. of hours
1	MHSC 310 <ul style="list-style-type: none"> • Physical principles underlying food processing: thermal processing, ionizing radiation, freezing and dehydration processing • Chemical principle in food processing: chemical changes in food that affect texture, sanitation and waste disposal • Packaging: latest trends in packaging, function and management • Food labelling: Definition, Principles, nutrition labelling, Food standards and Laws • Quality control: risk analysis , Hazard analysis critical control point system (HACCP) 	15
2	MHSC 311 <ul style="list-style-type: none"> • Running and managing a food service institutions: cafeteria • Quantity cookery: standardized portions • Visit to various food service institutions 	30
3	MHSC 312 <ul style="list-style-type: none"> • Community visit and assessment of nutritional status using direct (anthropometry, clinical and biochemical) and indirect (vital statistic and diet survey) methods. 	12
4	MHSC 313 Plan and prepare diet for the following diseases and calculate the nutrients <ul style="list-style-type: none"> • Diet in diabetes with and without insulin • Diet in cardiovascular disease (Atherosclerosis) • Diet in liver diseases (Jaundice) • Diet in post operative stages • Diet in kidney disease (Glomerulonephritis) • Vitamin A rich diet 	18
	TOTAL	75

SEMESTER – III

MHSC AECC302: Human Values, Professional Ethics & Gender Sensitization		
PWC (Theory: 05 credits)		
Unit	Topics to be covered	No. of hours
1	<ul style="list-style-type: none">• Meaning of Value• Source of Value: Tradition, Religion, Nature and Law• Philosophy and usage• Kinds and hierarchies	12
2	<ul style="list-style-type: none">• Value change• Causes with Instances• Implementing Strategies• Force effecting value Education• Checking Value Erosion	13
3	Profession and professional values <ul style="list-style-type: none">• Nature of profession and professionalism• Administration and management as professions and value crucial to these professions• Professional moral dilemmas and models for their resolutions	18
4	Indian Constitution : Values for Human Rights and Gender with reference to Preamble, Chapter III, Chapter IV and Chapter IV A	15
5	<ul style="list-style-type: none">• Gender : Meaning and Implication, Gender bias and discriminations;• Women in family, society, unorganised sector, politics and decision making, Empowerment Strategies;• Transgender rights	17
	TOTAL	75

Reading List

1. Guha, D. (2008). Practical and Professional Ethics, Vol. 1 & 5, New Delhi, Concept Publishing Company.
2. Seibert, D.V. (1984). The Ethical Executive, Simon and Schuster
3. Chakraborty, S.K. (1991). Management by Values. New Delhi, Oxford University Press.
4. Yuktananda Swami (1989). Values and ourselves, Culcutta, A. K. Chateerjee
5. Agarwal, H.O. (2016). International Law and Human Rights, Central Law Publication.
6. Basu, D.D. (2018). Indian Constitution, Lexis Nexis

SEMESTER – IV

Course Opted	Course Name	Credits
HSCM DSE 401	Practical approach in writing research activities	5 (0+5)
HSCM DSE 402	Internship/Dissertation/ Project/ Seminar	5 (0+5)
HSCM GE 401	Computer and IT skills	5 (0+5)
TOTAL		15

SEMESTER – IV

Course Title	Discipline Specific Elective Course 1 Practical approach to writing research activities		
Code	MHSC DSE 401		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO – 1	State and prepare research proposals	PSO-6	U, Ap
CO – 2	Distinguish research report writing	PSO-6	U, R
CO – 3	Produce research proposal and report writing	PSO-6	Ap

<u>MHSC DSE401:</u> Practical approach in writing research activities		
PWC (Practical: 05 credits)		
Unit	Topics to be covered	No. of hours
1	Writing for Grants-in -Aid <ul style="list-style-type: none"> • Getting familiar with the proposal format of different funding agencies: National and International Level • Proposal for Seminar/ Conference/ Workshop 	20
2	Different forms of research writing <ul style="list-style-type: none"> • Dissertation • Project Report • Articles in Journals • Research notes and reports • Review of articles • Review of books 	25
3	Power Point Presentation of any one from Unit I & II	30
	TOTAL	75

Reading List

1. Koul Lokesh (2005). Methodology of Educational Research, 3rd edition. New Delhi, Vikas Publishing House (P) Ltd.
2. Kothari C. R. (2004). Research Methodology, 3rd edition. New Delhi, New Age International (P) Ltd.
3. Kumar P. (2011) Research Methodology: A brief Survey. New Delhi, Global Publication.
4. Blaxter L., Hughes C., Tight M (2002). How to Research, 2nd edition. New Delhi, Viva Book (P) Ltd.
5. Jain G.L. (2009). Adhunik Shodh Pranali, 1st edition. Jaipur, Srinivas Publications.

SEMESTER – IV

MHSC DSE 402: Internship /Dissertation/ Project/ Seminar

Practical: 05 Credits

Dissertation any topics related to Home Science.

SEMESTER – IV

Course Title	Generic Elective Course 1 Computer and IT Skills		
Code	MHSC GE401		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO – 1	Familiarize with various techniques and functions of Windows and MS Word	PSO-6	U, Ap
CO – 2	Develop knowledge and skill in the use of MS excel and MS power point	PSO-6	C, Ap
CO – 3	Gain skills on Corel drawing	PSO-6	U, Ap
CO – 4	Acquaint about internet browsers and e-mail	PSO-6	U, Ap

MHSC GE 401:		
PWC		
Computer and IT skills (Practical: 05 Credits)		
Unit	Topics to be covered	No. of hours
1	<ul style="list-style-type: none"> • Windows • A- Desktop, Screensaver, Wallpaper, Notepad, WordPad, Calculator, Paint • Document Management • Floppy Management • MS Word <ul style="list-style-type: none"> A- Menu (file, edit, view etc) B- Text formatting (indent margins, page break, bullets, drop cap, borders tabs stops) C- Toolbars (word art, tables and borders, auto-text, standard formatting, drawing) D- Mail merge 	20
2	MS Excel <ul style="list-style-type: none"> • A- Features (Work book & worksheets) • B- Menu (file, edit, insert, format, tools data etc) • C- Functions (mathematical, statistical, pie etc) • D- Chart type & features (area, line, pie etc) • E- Toolbars (formula bar, drawing etc) 	15
3	MS Power Point <ul style="list-style-type: none"> • A- Features (different views) • B- Element (file, edit, insert, format, tools, slide show etc) • C- Layout • D- Network Neighborhood • E- presentation 	15

4	Corel Draw <ul style="list-style-type: none"> • Designing tools • Fills (Pattern, texture etc) • Additional tools like (trim, weld etc) • Measurements • Layout 	15
5	Internet <ul style="list-style-type: none"> • Browsers • Getting to the net • E-mail, chat 	10
	TOTAL	75