

**SYLLABUS**  
*for*  
**Choice Based Credit System**  
(CBCS)

**On the basis of**  
**Outcome Based Education**  
**(OBE)**

**M.A. HOME SCIENCE**

CC/DSE/GE/AECC/SEC



**PATNA WOMEN'S COLLEGE**

Autonomous

PATNA UNIVERSITY

3<sup>rd</sup> 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**

### **PROGRAMME OUTCOMES**

**Upon completion of the Post Graduate programme, the students will be able to achieve the following outcomes:**

- PO1: Profound Professional Knowledge:** Obtain proficiency to maneuver in diverse context of the advance subject knowledge.
- PO2: Critical Thinking and Analysis:** Attain the analytical expertise to create, analyse, formulate, and solve challenging problems.
- PO3: Environment and sustainability:** Understand the impact of the scientific solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO4: Research and Innovation:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO5: Effective Communication:** Demonstrate skills such as effective communication, decision making, problem and adapt ability to create technical writing.
- PO6: Problem Solving:** Understand, interpret, explain, analyse and assess the tools, techniques, models and methodologies to solve problems.
- PO7: Employability:** Demonstrate skills for doctoral, post-doctoral education, professional development and employability.
- PO8: Advance tools and techniques:** Attain ability to work with advanced IT tools and techniques in their domain.
- PO9: Social Consciousness:** Acquire awareness towards gender, environment, sustainability, human values and professional ethics and understand the difference between acting, responding and reacting to various social issues
- PO10: Nation Building:** Introspect and evolve into dynamic and creative individuals capable of socially productive, constructive actions that positively impact our Nation and the World at large.

## **PROGRAMME SPECIFIC OUTCOME**

### **Upon completion of these courses the graduates would**

- PSO1:** 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
- PSO2** Be efficient to nurture and take care of various age groups, to foster their healthy growth and development
- PSO3** Be empowered to take judicious decisions concerning the use of materials and resources and display competency in effective communication skills and use of media
- PSO4** Develop entrepreneurial skill towards start ups in fashion designing, tailoring unit, catering unit, nursery schools, family counselling centres, food processing centres and preservation units.
- PSO5** Engage in promoting social justice, gender sensitization, human rights and environmental consciousness
- PSO6** Gain theoretical and practical knowledge in research methodology and IT skills



## 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

### **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)

## **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)

## **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

## **Proposed Syllabus for M.A. in Home Science (Semester I - IV)**

Sem	Core Course (CC)	Discipline Specific Elective Course (DSE)	Generic Elective GE	Skill Enhancement Course SEC	Ability Enhancement Compulsory Course AECC
I	<b>MHSC 101 :</b> Advanced Nutrition				<b>HSCM AEC101:</b> Environmental Sustainability & Swachha Bharat Abhiyan Activities
	<b>MHSC 102 :</b> History and Theories of Human Development				
	<b>MHSC 103 :</b> Home Management and Ergonomics				
	<b>MHSC104:</b> Research Methodology and Statistics				
II	<b>MHSC 205 :</b> Food Science and Experimental Food			<b>HSCM SEC201:</b> Tourism & Hospitality Management	
	<b>MHSC 206 :</b> Maternal and Infant Nutrition				

	<b>MHSC 207 :</b> Communication Technology				
	<b>MHSC 208 :</b> Women's Studies				
	<b>MHSC 209 :</b> Management of Textile Crafts and Apparel Industry				
III	<b>MHSC 310 :</b> Food Processing				<b>HSCM AECC301:</b> Human Values, Professional Ethics & Gender Sensitization
	<b>HSCM 311 :</b> Institutional Food Management				
	<b>HSCM 312 :</b> Community Nutrition				
	<b>HSCM 313 :</b> Therapeutic Nutrition				
	<b>HSCM 314:</b> Practical				
IV		<b>HSCM DSE401:</b> Practical approach in writing research activities  <b>HSCM DSE401:</b> Entrepreneurship Development and Enterprise Management	<b>HSCM GE401:</b> Computer and IT skills		
		<b>HSCM DSE402:</b> Internship/Dissertation/Project/Seminar  <b>HSCM DSE402:</b> Rural Development Programmes			

## Course Structure for M.A. Home Science

Semester – I	Semester – II
<b>Core Course 1:</b> Advanced Nutrition	<b>Core Course 5:</b> Food Science and Experimental Food
<b>Core Course 2:</b> History and Theories of Human Development	<b>Core Course 6:</b> Maternal and Infant Nutrition
<b>Core Course 3 :</b> Home Management and Ergonomics	<b>Core Course 7:</b> Communication Technology
<b>Core Course 4:</b> Research Methodology and Statistics	<b>Core Course 8:</b> Women's Studies
<b>Ability Enhancement Compulsory Course (AECC)-I:</b> Environmental Sustainability & Swachha Bharat Abhiyan Activities	<b>Core Course 9:</b> Management of Textile Crafts and Apparel Industry
	<b>Skill Enhancement Course (SEC):</b> Tourism & Hospitality Management

Semester – III	Semester – IV
<b>Core Course 10:</b> Food Processing	<b>Discipline Specific Elective(DSE) I:</b> <b>MHSC DSE401:</b> Practical approach in writing research activities <b>MHSC DSE401:</b> Entrepreneurship Development and Enterprise Management
<b>Core Course 11:</b> Institutional Food Management	<b>Discipline Specific Elective(DSE) II:</b> <b>MHSC DSE402 :</b> Internship/Dissertation/ Project/ Seminar <b>MHSC DSE402 :</b> Rural Development Programmes
<b>Core Course 12:</b> Community Nutrition	<b>Generic Elective (GE) – I:</b> Computer and IT skills
<b>Core Course 13:</b> Therapeutic Nutrition	
<b>Core Course 14:</b> Practical	
<b>Ability Enhancement Compulsory Course (AECC)-II:</b> Human Values, Professional Ethics & Gender Sensitization	

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

Semester	Course	Theory	Practical	Tutorial	Total Credits
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### I. Core Course (14 Papers) – 05 credits each

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
	5. Food Science and Experimental Food	5	-	-	5
	6. Maternal and Infant Nutrition	5	-	-	5
II	7. Communication Technology	5	-	-	5
	8. Women's Studies	5	-	-	5
	9. Management of Textile Crafts and Apparel Industry	3	2	-	5
	10. Food Processing	5		-	5
	11. Institutional Food Management	5			5
III	12. Community Nutrition	5		-	5
	13. Therapeutic Nutrition	5			5
	14. Practical		5		5

### II. Elective Course – 05 credits each

IV	<b>A. 1. Discipline Specific Elective- DSE (2 Papers)</b>				
	1A. Practical approach in writing research activities	-	5	-	5
	1B. Entrepreneurship Development and Enterprise Management	-	5	-	5
	2A. Internship/Dissertation/ Project/ Seminar	-	5	-	5
	2B. Rural Development Programmes	-	5	-	5
	<b>B. 1. Generic Elective / Interdisciplinary (1 Papers)</b>				
IV	1. Computer and IT skills	-	5	-	5

### III. Ability Enhancement Courses – 05 credits each

	<b>1. Ability Enhancement Compulsory (AECC)</b>				
I	1. Environmental Sustainability & Swachha Bharat Abhiyan Activities	5	-	-	5
II	2. Human Values, Professional Ethics & Gender Sensitization	5	-	-	5

	<b>II. Skill Enhancement Course (SEC)</b>				
<b>III</b>	1. Tourism & Hospitality Management	5	-	-	5
	<b>TOTAL</b>				<b>100</b>

## **SEMESTER – I**

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

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

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

**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, 7thEdition, New Central Book Agency, Kolkata.
4. Srivastava,H. S.,(2010). Elements of Biochemistry, Rastogi Publications
5. A.K. Bery: Few RasayankiPathyaPustika

<b>Course Title</b>	<b>Core Course 2 History and Theories of Human Development</b>		
<b>Code</b>	<b>MHSC CC102</b>		
<b>CO No.</b>	<b>Course Outcomes</b>	<b>PSOs Addressed</b>	<b>Cognitive Level</b>
<b>CO1.</b>	Describe and recall the scope and principles of human development	PSO-2	R
<b>CO2.</b>	Summarise the early childhood theories	PSO-2	U,R
<b>CO3.</b>	Demonstrate and analyze social learning theories	PSO-2	Ap
<b>CO4.</b>	State and discuss different intelligence test and theories	PSO-2	U, An

<b>MHSC 102 : History and Theories of Human Development PWC (Theory: 5 credits)</b>		
<b>Unit</b>	<b>Topics to be covered</b>	<b>No. of Hours</b>
1	<b>Introduction to Development</b> <ul style="list-style-type: none"><li>• A brief History of Child Development: Definition, Scope and Objectives</li></ul>	10



	<ul style="list-style-type: none"> <li>Principles of Development</li> </ul>	
2	<b>Developmental Theories</b> <ul style="list-style-type: none"> <li>Piaget's Cognitive Development Theory</li> <li>Freud's Psycho-analytic Theory</li> <li>Freud's Psychosexual Theory</li> <li>Erikson's Psychosocial Theory</li> </ul>	20
3	<b>Early Childhood Theories of</b> <ul style="list-style-type: none"> <li>Locke</li> <li>Rousseau</li> <li>Tagore</li> <li>Gandhi</li> </ul>	20
4	<b>Social Learning Theories</b> <ul style="list-style-type: none"> <li>Pavlov</li> <li>B.F. Skinner</li> </ul>	10
5	<b>Theories of Intelligence</b> <ul style="list-style-type: none"> <li>Different Theories of Intelligence</li> <li>Types of Intelligence Tests</li> </ul>	15
	<b>TOTAL</b>	<b>75</b>

### 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.

<b>Course Title</b>	<b>Core Course 3 Home Management and Ergonomics</b>		
<b>Code</b>	<b>MHSC CC103</b>		
<b>CO No.</b>	<b>Course Outcomes</b>	<b>PSOs Addressed</b>	<b>Cognitive Level</b>
<b>CO1.</b>	Know Management system and Family resource management and the important features of management process	PSO-3	U, R
<b>CO2.</b>	State different aspect of the ergonomics and their nature	PSO-3	U
<b>CO3.</b>	Acquire the knowledge of time and energy management in study of ergonomics.	PSO-3	An
<b>CO4.</b>	Describe and appreciate the work simplification and time motion economy.	PSO-3	U

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

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

### Reading List :

- Swanson, B. Bettye, Introduction Home Management, Macmillan Publishing Company
- Sherwood, F. Ruth, (2006). Home – Today & Tomorrow McGraw Hill Pub.
- Agan, Tersie, The House – its plan and use, M.S. Oxford & IBH Publishing House
- Grandall, Gross, Management for Modern families, Knoll Prentice Hall, International INC, Englewood, New Jersey
- Patni, Manju, (2010). GrihPrabanth
- Singh, Brinda, Grih Prabandh and Grih Vyavastah, Panchsheel Prakashan, Jaipur
- Pheasant, Stephen, (2005). Bodyspace –Anthropometry Ergonomics and the Design of Work, 3rd ed., Custom Publishing
- Salvendy, Gavriel, (2002). Handbook of human Factors and Ergonomics, 4th Edition, Wiley Pub.
- Khan, M.I., (2010). Industrial Ergonomics, PHI Learning Pvt. Ltd.

10. Singh, Lakhwider, Pal, (2016).Work Study and Ergonomics, Cambridge University Press.

<b>Course Title</b>	<b>Core Course 4 Research Methodology and Statistics</b>		
<b>Code</b>	<b>MHSC CC104</b>		
<b>CO No.</b>	<b>Course Outcomes</b>	<b>PSOs Addressed</b>	<b>Cognitive Level</b>
<b>CO1.</b>	Demonstrate knowledge of the scientific method, purpose and approaches to research	PSO-6	Ap
<b>CO2.</b>	Compare and contrast quantitative and qualitative research	PSO-6	E, Ap
<b>CO3.</b>	Describe sampling methods, measurement scales and instruments, and appropriate uses of each.	PSO-6	E, Ap
<b>CO4.</b>	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

<b>MHSC 104 : Research Methodology and Statistics PWC (Theory: 5 credits)</b>		
<b>Unit</b>	<b>Topics to be covered</b>	<b>No. of Hours</b>
	<b>Section A: Research Methodology</b>	
<b>1</b>	<b>Foundation of Scientific Research:</b> <ul style="list-style-type: none"> <li>Research – meaning and definition, Need of research in Home Science</li> <li>Stages/ steps involved in research process - Research problem, Literature Review, Hypothesis, Variables</li> </ul>	<b>15</b>

	<ul style="list-style-type: none"> <li>• Methodology: sample, sampling technique, tools and tests, statistical devices Pilot study;</li> <li>• Test administration and data collection, Scientific generalization</li> <li>• Preparing the research report</li> </ul>	
2	<b>Research Tools:</b> <ul style="list-style-type: none"> <li>• Observation</li> <li>• Questionnaire</li> <li>• Interview</li> <li>• Case study</li> </ul>	08
3	<b>Concept of data:</b> <p>(a) Types of data – Primary data and secondary data; Q u a l i t a t i v e and quantitative data,</p> <p>(b) Analysis of data – Qualitative and quantitative data analysis</p>	12
	<b>Statistics</b>	
4.	<b>Statistics:</b> <ul style="list-style-type: none"> <li>• Meaning and characteristics of statistics</li> <li>• Definition, importance, classification,</li> <li>• Tabulation, frequency curve, histogram and pie chart</li> </ul>	14
5.	<b>Measure of central tendency :</b> <ul style="list-style-type: none"> <li>• Mean – definition, merits, demerits and related programs</li> <li>• Median – definition, merits, demerits and related program</li> <li>• Mode – definition, merits, demerits and related program</li> </ul>	11
6.	<b>Measure of dispersion:</b> <ul style="list-style-type: none"> <li>• Meaning and types of dispersion, range, quartile deviation, standard deviation related problems</li> <li>• Characteristics of dispersion</li> </ul>	15

	<ul style="list-style-type: none"> <li>Correlation – definition, methods of correlation, product moment (Pearson) and rank difference</li> </ul>	
	<b>TOTAL</b>	<b>75</b>

### 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
<b>HSCM 205</b>	Food Science and Experimental Foods	5(5+0)
<b>HSCM 206</b>	Maternal and Infant Nutrition	5(5+0)
<b>HSCM 207</b>	Communication Technology	5(5+0)
<b>HSCM 208</b>	Women's Studies	5(5+0)
<b>HSCM 209</b>	Management of Textile Crafts and Apparel Industry	5(3+2)
<b>HSCM SEC 201</b>	Tourism and Hospitality Management	5 (3+0)
	<b>Total</b>	<b>30</b>

Course Title	<b>Core Course 5 Food Science and Experimental Food</b>		
Code	<b>MHSC CC205</b>		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
<b>CO1.</b>	Gain knowledge about food science and acceptability of food	PSO-1	U
<b>CO2.</b>	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

<b>CO3.</b>	Know the classification, composition, cooking and preservation methods of vegetables and fruits	PSO-1	U, R
<b>CO4.</b>	Describe the uses of nuts, oilseeds, beverages and appetizers in cookery	PSO-1	An

<b>MHSC 205 : Food Science and Experimental Foods PWC (Theory: 5 credits)</b>		
<b>Unit</b>	<b>Topics to be covered</b>	<b>No. of Hours</b>
1	<b>Introduction to food science</b> <ul style="list-style-type: none"> <li>Aims and objectives of the study of food science</li> <li>Food acceptability by variation in colour, flavour and texture</li> <li>Physiochemical properties of food</li> </ul>	5
2	<b>Carbohydrates in foods</b> <ul style="list-style-type: none"> <li>Sugar – Sources, properties and uses, stages of sugar cookery</li> <li>Starch – Sources, properties and uses, processed cereal products</li> </ul>	10
3	<b>Protein cookery</b> <ul style="list-style-type: none"> <li>Pulses – composition, methods of cooking, germination and fermentation</li> <li>Meat – structure, common types, changes occurring during cooking of meat</li> <li>Fish – types, characteristics of fresh fish, cooking and preservation</li> <li>Egg – structure, methods of cooking, uses of egg in different</li> <li>Preparations Milk – composition, effect of heat on milk, uses in cookery</li> <li>Objectives of ergonomics</li> </ul>	25



4	<b>Vegetables and fruits</b> <ul style="list-style-type: none"> <li>• Classification, composition, colour / pigments, effects of cooking on vegetables Fruits-</li> <li>• Classification, composition, effect of heat and methods of preservation</li> </ul>	20
5	<ul style="list-style-type: none"> <li>• Nuts and oilseeds – composition and uses in cookery</li> <li>• Beverages and appetizers – coffee, tea, fruit beverages and alcoholic beverages, milk based beverages, carbonated, non-alcoholic beverages and alcoholic beverages</li> </ul>	15
	<b>TOTAL</b>	<b>75</b>

### 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
CO1.	Memorize and interrelate physiology and nutritional requirements of pregnancy	PSO-1, 2	R, U
CO2.	Interrelate and measure the background and complications of lactation	PSO-1	U, E

<b>CO3.</b>	Distinguish and appraise management of preterm and LBW babies	PSO-1	U, An, E
<b>CO4.</b>	Recite the policies and programmes for safe motherhood	PSO-1	R

<b>MHSC 206 : Maternal and Infant Nutrition PWC (Theory: 5 credits)</b>		
<b>Unit</b>	<b>Topics to be covered</b>	<b>No. of Hours</b>
1	<ul style="list-style-type: none"> <li>• Important of Maternal nutrition prior to and during pregnancy, Effect of under nutrition on mother-child health, including pregnancy</li> <li>• Physiology and endocrinology of pregnancy and embryonic and fetal growth and development</li> <li>• Nutritional requirement during pregnancy</li> <li>• Complications of pregnancy and management and importance of antenatal care of at-risk mothers</li> <li>• Congenital malformation, fetal alcohol syndrome and gestational diabetes mellitus</li> </ul>	20
2	<ul style="list-style-type: none"> <li>• Lactation</li> <li>• Development of mammary tissue and role of hormones</li> <li>• 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.</li> </ul>	15
3	<ul style="list-style-type: none"> <li>• causes of preterm and Low Birth Weight (LBW)</li> <li>• Care and management of the preterm and LBW infants</li> <li>• Implications for feeding and management</li> </ul>	10

4	<ul style="list-style-type: none"> <li>• Menopause</li> <li>• Sign and symptoms</li> <li>• Stages of Menopause</li> <li>• Management of dietary needs and health</li> </ul>	15
5	<ul style="list-style-type: none"> <li>• Policies and programmes for promotion maternal and child nutrition and health</li> </ul>	15
	<b>TOTAL</b>	<b>75</b>

### Reading List :

1. Wadhwa A and Sharma S (2003). Nutrition in the Community-A Textbook. Elite Publishing House Pvt. Ltd. New Delhi.
2. Park K (2011). Park's Textbook of Preventive and Social Medicine, 21st Edition. M/s Banarasidas Bhanot Publishers, Jabalpur, India.
3. Bamji MS, Krishnaswamy K and Brahman GNV (Eds) (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi.
4. Swaminathan, M. (2014). Food and Nutrition , Mc Grawhill, New Delhi
5. Elizabeth, K. E. (2015). Nutrition and Child Development, 5th Edition, Paras Medical Publishers, Hyderabad
6. Singh, Vrinda, (2019). Aahar Evam Poshan, Panchsheel prakashan
7. Tandan, Usha, (2015). Manav Sharir Rachana Evam Kriya Vigyan, Peepee Publishers
8. Khanuja, Reena, (2012). Aahar Evam Poshan Vigyan, Agrawal Publications

<b>Course Title</b>	<b>Core Course 7 Communication Technology</b>		
<b>Code</b>	<b>MHSC CC207</b>		
<b>CO No.</b>	<b>Course Outcomes</b>	<b>PSOs Addressed</b>	<b>Cognitive Level</b>
<b>CO1.</b>	Understand various aspect of communication technology and identify different forms of communication	PSO-3	U, R
<b>CO2.</b>	Describe different types of Mass Media and their uses.	PSO-3	R
<b>CO3.</b>	Discuss emerging information communication technology and its use in extension work	PSO-3	U, An
<b>CO4.</b>	State adoption and diffusion process.	PSO-3	U

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

	<ul style="list-style-type: none"> <li>• Innovation and diffusion</li> <li>• The Adoption process</li> <li>• The Innovation – Decision process</li> <li>• Adopter categories</li> </ul>	
5	<b>Introduction to Information Communication Technology (ICT)</b> <ul style="list-style-type: none"> <li>• Satellite broadcasting, electronic media and computer Technology</li> <li>• Role of ICT in Extension work and development</li> </ul>	15
	<b>TOTAL</b>	<b>75</b>

### Reading List :

1. Dale (1964). Audio-visual Methods of Teaching, Holt, Rinhart and Wintson, London.
2. Brown et al (1983). A.V. Instruction Technology, Media and Methods, 6th Edition, Mc Graw Hill Book Co., New York.
3. Joshi Uma (1997). Text book of Mass Communication and Media, Anmol Publications, New Delhi.
4. Joshi Uma (2001). Understanding Development Communications: Domincent Publishers, New Delhi.
5. 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
CO1.	Create awareness about the status of women in India	PSO-5	C
CO2.	Learn the history and relevance of women's studies	PSO-5	U

<b>CO3.</b>	Familiarize with the issues and problems of women in India	PSO-5	U
<b>CO4.</b>	Understand the personal and civil laws related to women and know existing Women's Welfare Programmes	PSO-5	U

<b>MHSC 208 : Women's Studies</b> <b>PWC (Theory: 5 credits)</b>		
<b>Unit</b>	<b>Topics to be covered</b>	<b>No. of Hours</b>
1	<b>Women in India:</b> <ul style="list-style-type: none"> <li>• Civilization down the ages</li> <li>• 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</li> </ul>	20
2	<b>Relevance of Women's Studies</b> <ul style="list-style-type: none"> <li>• Sources and growth of Women's Studies</li> </ul>	10
3	<b>Issues related to Crime against Women in India</b> <ul style="list-style-type: none"> <li>• Child marriage</li> <li>• Female feticide</li> <li>• Dowry</li> <li>• Sati</li> <li>• Honor killing</li> <li>• Rape and Sex abuse</li> <li>• Trafficking</li> <li>• Domestic Violence</li> </ul>	15
4	<b>Personal and Civil Laws related to Women</b> <ul style="list-style-type: none"> <li>• Dowry prohibition Act</li> <li>• Divorce and maintenance Law</li> <li>• Marriage Registration Act</li> <li>• Domestic Violence Act 2005</li> <li>• Pre-Natal Diagnostic Act</li> </ul>	20

	<ul style="list-style-type: none"> <li>• Laws against feticides</li> <li>• Medical Termination of Pregnancy (MTP) Act, 1971</li> <li>• Immoral Traffic Prevention Act</li> <li>• Indecent Representation of Women (Prohibition) Act 1986</li> <li>• Law against Sexual Harassment at workplace</li> </ul>	
5	Women's Welfare Programme	10
	<b>TOTAL</b>	<b>75</b>

### 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

<b>Course Title</b>	<b>Core Course 9 Management of Textile Crafts and Apparel Industry</b>		
<b>Code</b>	<b>MHSC CC209</b>		
<b>CO No.</b>	<b>Course Outcomes</b>	<b>PSOs Addressed</b>	<b>Cognitive Level</b>
<b>CO1.</b>	Understand the origin of technique and design with reference to colours, motifs, layouts of different traditional textiles crafts of India.	PSO-4	U
<b>CO2.</b>	Understand the role of textile crafts and handicraft sector in the national economy.	PSO-4	U
<b>CO3.</b>	Understand the role and impact of mass media on fashion	PSO-4	U
<b>CO4.</b>	Knowledge of merchandising activities in a retail setup and prepare various samples of textile crafts	PSO-4	U, Ap

<b>MHSC 209 : Management of Textile Crafts and Apparel Industry PWC (Theory 03 Credits + Practical 02 Credits)</b>		
<b>Unit</b>	<b>Topics to be covered</b>	<b>No. of Hours</b>
1	<b>Study of Textile Crafts of India : history, production centers, techniques, designs, colors and products</b> <ul style="list-style-type: none"> <li>Woven textile of India – Banaras Brocades, Jamdanis and Baluchars of Bengal, Kanni Shawls of Kashmir</li> <li>Embroidered textiles of India – Kantha of Bengal, Kasuti of Karnataka, Phulkari of Punjab, Chickankari of Uttar Pradesh, Kashida of Kashmir</li> <li>Painted and Printed textiles of India – Kalamkari of Andhra Pradesh, Dabu printing of Rajasthan, Ajarakh prints of Gujrat</li> </ul>	17



	<ul style="list-style-type: none"> <li>Dyed textiles of India – Bandhanis of Rajasthan and Gujrat, Ikats-Patola of Gujrat, Bandhas of Orissa, Pochampalli of Andhra Pradesh</li> </ul>	
2	<b>Elements used in creating a design</b> <ul style="list-style-type: none"> <li>Color – Color harmony, its sensitivity and composition in dress</li> <li>Motif development – Geographical, simplified, naturalized, stylized, abstract and ornamental</li> <li>Components of fashion – Silhouette, details, color, fabric, texture</li> </ul>	08
3	<b>Principles of Merchandising</b> <ul style="list-style-type: none"> <li>Types of merchandising</li> <li>Role of retailing in merchandising</li> <li>Visual Merchandising – Plan &amp; Schedules, Types of display, Elements of display</li> </ul>	07
4	<b>Role of Mass Media in Fashion</b> <ul style="list-style-type: none"> <li>Role of Mass Media in promoting fashion</li> <li>Impact of Mass Media on fashion</li> </ul>	05
5	<b>Cultural and Economic Empowerment through Textile Crafts</b> <ul style="list-style-type: none"> <li>Textile crafts in National economy</li> <li>Evolution and socio-economic significance of Khadi, Handloom and Handicraft sector</li> <li>Sustenance of traditional textile crafts</li> <li>Interventions by organizations</li> </ul>	8
	<b>Practical:</b> <ol style="list-style-type: none"> <li>Prepare samples of basic stitches of traditional embroideries of India</li> <li>Drafting and Construction of : <ul style="list-style-type: none"> <li>Baby frock</li> <li>Salwaar</li> <li>Kameez</li> </ul> </li> </ol>	30
	<b>TOTAL</b>	<b>75</b>

**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

**Skill Enhancement Course (SEC) (02 Credits)****SEMESTER – II****MHSC SEC201: Tourism and Hospitality Management****PWC Theory: 02 Credits****COURSE OUTCOMES**

**This course will enable the students:**

- CO1.** To understand significance of travel and tourism in the modern times
- CO2.** To gain knowledge about various types of tourism and various organizations involved in tourism management
- CO3.** To learn hospitality management in relation to tourism.
- CO4.** To know about tourism marketing and places of tourist interest.

## **Unit I Introduction to Travel and Tourism**

- Meaning, significance and history of travel and tourism
- The tourism industry-its systems, components, infrastructure
- Types of tourism – Ecotourism, Heritage tourism, Medical tourism, Educational tourism-
- Impact of tourism

## **Unit II Tourism Organization and Legislation**

### **Tourism Organization:**

- Needs of tourism organization
- International organization
- Government organization
- Private Sector organizations in India
- Private Sector organizations in India
- Non-Government Organizations

### **Tourism Legislation:**

- Laws pertaining to trans-board movements such as visa regulation, customs, foreign exchange, immigration
- Laws related food and beverages
- Laws related to transport
- Laws related to accommodation
- Consumer protection laws related to health, hygiene quality
- Travel & Tourism Department of Government-Central and States: Programmes and Policies

## **Unit III Hospitality Management**

- Customer service skills- importance of customer satisfaction, telephone skills/ communication etiquettes, handling customers complaints, products, products knowledge, knowledge about the places of tourist interest.
- Travel Agent – types of travel agencies, functions of travel agency

- The Tour Operator – types of tour operators, packages tour, guides and escorts
- Formalities and regulations for tourism – Passport and Visa, Health regulations for international travel, Customs Regulations, Emigration and Immigration, Taxes paid by Travelers and Travel Insurance

#### **Unit IV Itinerary planning and Tourism Marketing**

- Itinerary planning – basic information for planning the itinerary, resources for planning itinerary, calculation of tour cost
- Tourism marketing – tourism market segmentation, designing a tour brochure, e-marketing, guidelines for tourist
- Places of tourist interest at national and international level for various purposes

#### **Things to do:**

- Visit places of tourist interest
- Prepare a list of places of interest in India under each type of tourism
- Prepare a list of tour operators working at local and national level
- Prepare a brochure for a place of tourist interest

#### **References:**

1. Kamra, K.K. and Chand, M. (2006) Basics of Tourism – Theory, Operation and Practice, Kanishka Publishers, New Delhi
2. Pur, I M. and Chand, G. (2006). Tourism Management, Pragun Publications. New Delhi

### **SEMESTER – III**

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

<b>Course Title</b>	<b>Core Course 10 Food Processing</b>		
<b>Code</b>	<b>MHSC CC310</b>		
<b>CO No.</b>	<b>Course Outcomes</b>	<b>PSOs Addressed</b>	<b>Cognitive Level</b>
<b>CO1.</b>	Learn the various classes of microorganism and their effects on food and consumer	PSO-1	U
<b>CO2.</b>	Learn and use different methods of food preservation and processing	PSO-1	U, Ap
<b>CO3.</b>	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
<b>CO4.</b>	Understand food standard and related laws regarding food safety and quality	PSO-1	U

<b>MHSC 310 : Food Processing</b> <b>PWC (Theory: 5 credits)</b>		
<b>Unit</b>	<b>Topics to be covered</b>	<b>No. of Hours</b>
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"> <li>Physical principles in undertaking food processing operations including thermal processing, ionizing radiation, refrigeration, freezing and dehydration, minimal processing</li> </ul>	20
3	Basic principles of food product development, need and types of new food <ul style="list-style-type: none"> <li>Extruded foods: merits, demerits and uses</li> <li>Organic foods: processing and packaging, programme for production</li> <li>Product evaluation techniques: sensory evaluation and product testing</li> <li>Fermentation technology: fermentation, enrichment and fortification</li> </ul>	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
	<b>TOTAL</b>	<b>75</b>

### 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

<b>Course Title</b>	<b>Core Course 11 Institutional Food Management</b>		
<b>Code</b>	<b>MHSC CC311</b>		
<b>CO No.</b>	<b>Course Outcomes</b>	<b>PSOs Addressed</b>	<b>Cognitive Level</b>
<b>CO1.</b>	State and discuss planning and management of food service system	PSO-4	U, An
<b>CO2.</b>	Recognize and apply the concept of quality and quantity food production and management	PSO-4	U
<b>CO3.</b>	Describe and identify the delivery and services of foods in different systems	PSO-4	U, R
<b>CO4.</b>	Recognize and state the concept of food service management in various educational institutions	PSO-4	R, An

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



**Reading List :**

1. West, Bessie Brooks, Wood Levelle, (1977). Food Service in Institutions. John Wiley 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
CO1.	Familiarize with the concept of public health nutrition and acquire skills in nutritional assessment	PSO-1	U, Ap
CO2.	Create an awareness regarding assessment of nutritional status of individuals and community.	PSO-1	C
CO3.	Understand the National and International agencies involved in women and child welfare.	PSO-1	U

<b>CO4.</b>	Comprehend the National Health Care Delivery System.	PSO-1	U, R
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<b>MHSC 312 : Community Nutrition PWC (Theory: 5 credits)</b>		
<b>Unit</b>	<b>Topics to be covered</b>	<b>No. of Hours</b>
1	Concept of public nutrition, relationship between health and nutrition <ul style="list-style-type: none"> <li>Nutritional problems prevalent in India and measures to combat them.</li> <li>Bone health problems and dietary management</li> </ul>	10
2	Assessment of nutritional status: <ul style="list-style-type: none"> <li>Direct: anthropometry, clinical and biochemical</li> <li>Indirect: vital statistic and diet survey</li> </ul>	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"> <li>National agencies: ICDS, ICMR, ICAR, NIPCCD</li> <li>International agencies: WHO, FAO, UNICEF</li> </ul>	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
	<b>TOTAL</b>	<b>75</b>

**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**

<b>Course Title</b>	<b>Core Course 13 Therapeutic Nutrition</b>		
<b>Code</b>	<b>MHSC CC313</b>		
<b>CO No.</b>	<b>Course Outcomes</b>	<b>PSOs Addressed</b>	<b>Cognitive Level</b>
<b>CO1.</b>	Express and sketch meal planning	PSO-1	U, Ap
<b>CO2.</b>	Interpret and compute dietary modification for different diseases	PSO-1	U, Ap, An
<b>CO3.</b>	Select components of safe motherhood and menopause	PSO-2	R, U
<b>CO4.</b>	Sketch dietary counselling, and diet planning	PSO-4	U, Ap

<b>MHSC 313 : Therapeutic Nutrition</b> <b>PWC (Theory: 5 credits)</b>		
<b>Unit</b>	<b>Topics to be covered</b>	<b>No. of Hours</b>
1	<b>Importance of health</b> <ul style="list-style-type: none"> <li>Importance of modification diet, factors to be considered while planning therapeutic diet.</li> </ul>	10
2	Prevalence, aetiology, biochemical and clinical manifestations and therapeutic measurements of the following: <ul style="list-style-type: none"> <li>Diabetes mellitus</li> <li>Nutritional anaemia</li> <li>Liver disorders: jaundice, hepatitis</li> <li>Diseases of the cardiovascular system</li> </ul>	25
3	Cancer: <ul style="list-style-type: none"> <li>types, causes, symptoms and dietary management</li> </ul> Renal diseases: <ul style="list-style-type: none"> <li>classification, aetiology, symptom and dietary management</li> </ul>	17
4	Safe motherhood: <ul style="list-style-type: none"> <li>Goal, Objective, strategies and pillars of safe motherhood;</li> <li>HIV/AIDS and Nutrition: importance of ensuring good nutrition for people living with HIV/AIDS; Recommendation and issues related to breast feeding by mothers with HIV/AIDS;</li> <li>Monitoring of HIV Infected children by Anganwadi Worker/ Auxiliary Nurse Midwife (AWW/ANM);</li> <li>Measures to overcome stigma</li> </ul>	13
5	Dietary counselling: <ul style="list-style-type: none"> <li>need and objectives</li> <li>steps and techniques</li> </ul>	10
	<b>TOTAL</b>	<b>75</b>

### 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.

<b>MHSC 314 : MHSC 310 + MHSC 311 + MHSC 312 + MHSC 313)</b> <b>PWC (Practical: 05 credits)</b>		
<b>Unit</b>	<b>Topics to be covered</b>	<b>No. of Hours</b>
<b>1</b>	<b>MHSC 310</b> <ul style="list-style-type: none"><li>• Physical principles underlying food processing: thermal processing, ionizing radiation, freezing and dehydration processing</li><li>• Chemical principle in food processing: chemical changes in food that affect texture, sanitation and waste disposal</li><li>• Packaging: latest trends in packaging, function and management</li><li>• Food labelling: Definition, Principles, nutrition labelling, Food standards and Laws</li></ul>	<b>15</b>

	<ul style="list-style-type: none"> <li>• Quality control: risk analysis , Hazard analysis critical control point system (HACCP)</li> </ul>	
2	<b>MHSC 311</b> <ul style="list-style-type: none"> <li>• Running and managing a food service institutions: cafeteria</li> <li>• Quantity cookery: standardized portions</li> <li>• Visit to various food service institutions</li> </ul>	30
3	<b>MHSC 312</b> <ul style="list-style-type: none"> <li>• Community visit and assessment of nutritional status using direct (anthropometry, clinical and biochemical) and indirect (vital statistic and diet survey) methods.</li> </ul>	12
4	<b>MHSC 313</b> Plan and prepare diet for the following diseases and calculate the nutrients <ul style="list-style-type: none"> <li>• Diet in diabetes with and without insulin</li> <li>• Diet in cardiovascular disease (Atherosclerosis)</li> <li>• Diet in liver diseases (Jaundice)</li> <li>• Diet in post operative stages</li> <li>• Diet in kidney disease (Glomerulonephritis)</li> <li>• Vitamin A rich diet</li> </ul>	18
	<b>TOTAL</b>	<b>75</b>

## SEMESTER – IV

Course Opted	Course Name	Credits
<b>HSCM DSE 401</b>	Practical approach in writing research activities5	5 (0+5)
<b>HSCM DSE 402</b>	Internship/Dissertation/ Project/ Seminar	5 (0+5)
<b>HSCM GE 401</b>	Computer and IT skills	5 (0+5)
	<b>Total</b>	<b>15</b>

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
<b>CO1.</b>	State and prepare research proposals	PSO-6	U, Ap
<b>CO2.</b>	Distinguish research report writing	PSO-6	U, R
<b>CO3.</b>	Produce research proposal and report writing	PSO-6	Ap

<b>MHSC DSE401 : Practical approach in writing research activities</b> <b>PWC (Practical: 05 credits)</b>		
Unit	Topics to be covered	No. of Hours
1	<b>Writing for Grants-in -Aid</b> <ul style="list-style-type: none"> <li>Getting familiar with the proposal format of different funding agencies: National and International Level</li> <li>Proposal for Seminar/ Conference/ Workshop</li> </ul>	25
2	<b>Different forms of research writing</b> <ul style="list-style-type: none"> <li>Dissertation</li> <li>Project Report</li> <li>Articles in Journals</li> <li>Research notes and reports</li> </ul>	30

	<ul style="list-style-type: none"> <li>• Review of articles</li> <li>• Review of books</li> </ul>	
3	Power Point Presentation of any one from Unit I & II	20
	<b>TOTAL</b>	<b>75</b>

### 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.

Course Title	Discipline Specific Elective Entrepreneurship Development and Enterprise Management		
Code	MHSC DSE 401		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO1.	Understand the significance of entrepreneurship development in India and its growth process along with issues faced by the women entrepreneurs.	PSO-6	U, R
CO2.	Appraise evolving business opportunities and develop sustainable project models in accordance with present market environment.	PSO-6	An, C



<b>CO3.</b>	Explain the conceptual framework of functions of market, financial planning and ensuring quality of the products.	PSO-6	U, R
<b>CO4.</b>	Analyse successful case studies with latest trend in women entrepreneurship and develop business plans based on SWOT analysis. Acquire knowledge to facilitate entrepreneurship development in India.	PSO-6	An, Ap

**MHSC DSE401 : Entrepreneurship Development and Enterprise Management  
PWC (Theory: 4 credits + Practical: 2credits)**

<b>Unit</b>	<b>Topics to be covered</b>	<b>No. of Hours</b>
1	Entrepreneurship Development: Entrepreneurship – concept, definition, need and significance of entrepreneurship development in India, entrepreneurship growth process, barriers, entrepreneurship education model	6
2	Entrepreneur – their characteristics, types, gender issues, role demands and challenges; entrepreneurial motivation; challenges faced by women entrepreneurs	8
3	Enterprise Planning and Launching: Types of enterprises – classification based on capital, product, location, ownership pattern and process; sensing business opportunities and assessing market potential; market research; appraising of project and feasibility	12
4	Enterprise Management and Networking: Managing production: organizing production, input-output cycle, ensuring quality; Managing Marketing: understanding markets and marketing, functions of marketing, 4Ps of marketing (same as marketing mix)	11

5.	Financial Management: meaning of finance, types and sources of finance, estimation of project cost, profit assessment; Networking enterprises.	8
	<b>Practical:</b> Documentation of case studies of successful women entrepreneurs in Patna; SWOT analysis with respect to entrepreneurial competencies through case profiling of successful entrepreneurs and enterprises; survey of an institution facilitating entrepreneurship development in India	30
	<b>TOTAL</b>	<b>75</b>

### **Practical Record: A Project File**

### **Reading List :**

1. Biswas, Debasish & Dey, Chanchal (2021). Entrepreneurship Development in India. Routledge, The Digital and eBook.
2. Gundry Lisa, K. & Kickul Jill, R. (2007). Entrepreneurship Strategy: Changing Patterns in New Venture Creation, Growth and Reinvention. Sage Publications.
3. Khanka, S.S. (2006). Entrepreneurial Development. S. Chand & Co., Pvt. Ltd., New Delhi.
4. Sharma, Sangeeta (2016). Entrepreneurship Development. PHI Learning, Delhi.
5. Taneja & Gupta (2001). Entrepreneur Development – New Venture Creation. Galgotia Publishing Company.

## **SEMESTER – IV**

### **MHSC DSE 402: Internship /Dissertation/ Project/ Seminar**

#### **Practical: 05 Credits**

#### **Dissertation any topics related to Home Science.**

<b>Course Title</b>	<b>Discipline Specific Elective Rural Development Programmes</b>		
<b>Code</b>	<b>MHSC DSE 402</b>		
<b>CO No.</b>	<b>Course Outcomes</b>	<b>PSOs Addressed</b>	<b>Cognitive Level</b>
<b>CO1.</b>	In-depth understanding of Community development Programme	PSO-3,4	U
<b>CO2.</b>	Understand the role and relationship between Panchayati Raj and women Empowerment	PSO-3,4	U
<b>CO3.</b>	Describe Five years plans for Community /Rural Development and programmes for women	PSO-4	U
<b>CO4.</b>	Evaluate the benefit of current Rural Development programmes for women and child in India and Bihar.	PSO-6	An

<b>MHSC DSE402 : Rural Development Programmes PWC (Theory: 4 credits + Practical: 2credits)</b>		
<b>Unit</b>	<b>Topics to be covered</b>	<b>No. of Hours</b>
1.	Community Development: Analysis of the terms – community development and community works; scope, objectives and philosophy behind Community Development Programme; Principles and essential elements of Community Development; types, process, limitations of CDP; Suggestions for CDP; Role of Community Development worker; Impact of CDP on rural life in India.	10
2.	Panchayati Raj: Decentralization of power; composition, power of Panchayati Raj Institution (PRI); 73rd and 74th amendments in the Constitution; Bihar Panchayati Raj Act 1993; Women Empower in PRI	10

3.	Recent Five Year Plans: Community/Rural Development through Five Year Plan; Programmes for the women;	8
4.	Current programmes of rural development in India and Bihar with special reference to Women and Child	7
5.	Support structures and their functions: Central Social Welfare Board, State Social Welfare Board; National Level Voluntary Agencies: CAPART, KVIC; Local Level Voluntary Agencies; Peoples Organization at Grass roots - SHGs	10
	<b>Practical :</b> Visits to KVIC, SHGs / internship or network with Social Welfare Centres or SHGs and prepare a report.	30
	<b>TOTAL</b>	<b>75</b>

### **Practical Record: A Project File**

### **Reading List :**

1. Azeez Abdul, N.P., Akhtar, Jawed, S.M. (2016). Rural Development in India: Policies and Programmes. Kalpaz Publications, New Delhi.
2. Chaubey, R.K. (1979). A Hand Book of Education Extension. Jyoti Prakashan, Allahabad.
3. Directorate of Extension (1965). Extension Education in Community Development. Ministry of Food and Agriculture, Government of India, New Delhi.
4. Jain, Meenu (2011). Rural Development Programmes in India. Deep and Deep Publication, Delhi
5. Krishnamachari, V.T. (1955). Community Development in India. Publication Division, Delhi.
6. Nath, Madhuri, Verma, Binoy Nath (2004). Women and Rural Development Programmes. B. R. Publishing Corporation, New Delhi.
7. Ray, G.L.(1999). Extension Communication and Management. Naya Prakash, Calcutta.
8. Reddy, A. (1999). Extension Education. Sree Laxmi Press, Bapatla.

## **SEMESTER – IV**

<b>Course Title</b>	<b>Generic Elective Course 1 Computer and IT Skills</b>		
<b>Code</b>	<b>MHSC GE401</b>		
<b>CO No.</b>	<b>Course Outcomes</b>	<b>PSOs Addressed</b>	<b>Cognitive Level</b>
<b>CO1.</b>	Familiarize with various techniques and functions of Windows and MS Word	PSO-6	U, Ap
<b>CO2.</b>	Develop knowledge and skill in the use of MS excel and MS power point	PSO-6	C, Ap
<b>CO3.</b>	Gain skills on Corel drawing	PSO-6	U, Ap
<b>CO4.</b>	Acquaint about internet browsers and e-mail	PSO-6	U, Ap

<b>MHSC GE 401 : Computer and IT skills PWC (Practical: 05 Credits)</b>		
<b>Unit</b>	<b>Topics to be covered</b>	<b>No. of Hours</b>
1	<ul style="list-style-type: none"> <li>• Windows</li> <li>• A- Desktop, Screensaver, Wallpaper, Notepad, WordPad, Calculator, Paint</li> <li>• Document Management</li> <li>• Floppy Management</li> <li>• MS Word               <ul style="list-style-type: none"> <li>A- Menu (file, edit, view etc)</li> <li>B- Text formatting (indent margins, page break, bullets, drop cap, borders tabs stops)</li> <li>C- Toolbars (word art, tables and borders, auto-text, standard formatting, drawing)</li> <li>D- Mail merge</li> </ul> </li> </ul>	20
2	<b>MS Excel</b> <ul style="list-style-type: none"> <li>A- Features (Work book &amp; worksheets)</li> <li>B- Menu (file, edit, insert, format, tools data etc)</li> </ul>	15

	C- Functions (mathematical, statistical, pie etc) D- Chart type & features (area, line, pie etc) E- Toolbars (formula bar, drawing etc)	
3	<b>MS Power Point</b> A- Features (different views) B- Element (file, edit, insert, format, tools, slide show etc) C- Layout D- Network Neighborhood E- presentation	15
4	<b>Corel Draw</b> <ul style="list-style-type: none"> <li>• Designing tools</li> <li>• Fills (Pattern, texture etc)</li> <li>• Additional tools like (trim, weld etc)</li> <li>• Measurements</li> <li>• Layout</li> </ul>	15
5	<b>Internet</b> <ul style="list-style-type: none"> <li>• Browsers</li> <li>• Getting to the net</li> <li>• E-mail, chat</li> </ul>	10
	<b>TOTAL</b>	<b>90</b>

Course Title	Ability Enhancement Compulsory Course 1 Environmental Sustainability & Swachha Bharat Abhiyan Activities
Code	MAECC-101
CO No.	Course Outcomes
CO1.	Understand the concept of environmental Sustainability
CO2.	Understand the concept and types of natural resources and environmental pollution
CO3.	Evaluate the anomalies created due to haphazard

	population growth and its impact on biodiversity and population
<b>CO4.</b>	Understand the concept of Swachha Bharat Abhiyan and importance of cleanliness

**MHSC AECC101: A.Environmental Sustainability; B.Swachha Bharat Abhiyan Activities | PWC (Theory: 05 credits)**

Unit	Topics to be covered	No. of Hours
1	<b>Environmental ethics &amp; ecosystem:</b> <ul style="list-style-type: none"> <li>• Concept of sustainable development with reference to human values in western and Indian perspective,</li> <li>• Sustainable development &amp; conservation of natural resources (Nature, factors, structure, development, and people participation) development, environment- rural and urban, concept of Ecosystem</li> </ul>	15
2	<b>Development and its effect on environment:</b> <ul style="list-style-type: none"> <li>• Environment pollution- water, air, noise etc. due to Urbanization, Industrial civilization, Concept of Global Warming, Climate change, Green House Effect, Acid rain, Ozone layer depletion, Menace of encroachment to impact on habit &amp; habitat on indigenous flora &amp; fauna</li> </ul>	13
3	<b>Concept of Biodiversity and its conservation:</b> <ul style="list-style-type: none"> <li>• Environment; degradation and conservation Govt Policies, Social effects and role of social reforms in this direction.</li> <li>• Role of scientific conservation of environmental concept of Three 'R' (reduce, reuse, recycle).</li> <li>• Need of environmental education and awareness programme and ecological economics</li> </ul>	10

4	<b>Swachha Bharat Abhiyan:</b> <ul style="list-style-type: none"> <li>• The concept of Swachhata as personal, Gandhian approach towards social and environmental moral values &amp; concept of swachhata and its relation to moral Upgradation of society and freedom struggle, Awareness programme related to Swachhata.</li> <li>• Role of 'Swachchagrahis' in Swachha Bharat Abhiyan</li> <li>• Sanitation and hygiene, why sanitation is needed, sanitation and human rights, plantation, values of nature, concept of community participation and role of state agencies.</li> <li>• Case study of Sanitation, effects of cleanliness, diseases- infectious and vector- borne ideas of spread of diseases through body and other biological fluids and excreta</li> </ul>	17
	Assignment/ Practical/ field work based on Unit- 4 <b>or</b> Alternative to unit – 4 and unit- 5, a student can also enrol for Swachha Bharat Internship programme of MHRD	20
	<b>TOTAL</b>	<b>75</b>

### **SEMESTER – III**

<b>MHSC AECC302: A. Human Values, Professional Ethics; B. Gender Sensitization   PWC (Theory: 05 credits)</b>		
<b>Unit</b>	<b>Topics to be covered</b>	<b>No. of Hours</b>
1	<b>Variety of Moral Issues, principals of Ethics and Morality:</b> <ul style="list-style-type: none"> <li>• Understanding the harmony in the society (society being an extension of family), Integrity</li> </ul>	15



	<ul style="list-style-type: none"> <li>• Work ethics, Courage, Empathy, Self Confidence, Professional Ideas and Virtues, Ethics as a Subset of Morality,</li> <li>• Ethics and Organizations, Duties and Rights of employees and employers.</li> </ul>	
2	<b>Holistic approach to corporate ethics :</b> <ul style="list-style-type: none"> <li>• Vendantic ethics- Tagore, Vivekananda, Gandhi and Aurobondo on ethics, Ethics in Finance,</li> <li>• Business and Environment, Professional Rights, Intellectual property rights,</li> <li>• Corporate responsibility, Social Audit and Ethic Investing, Computer and Ethics.</li> </ul>	13
3	<b>Professional Ethics :</b> <ul style="list-style-type: none"> <li>• Augmenting Universal Human Order, Characteristics of people- friendly and eco-friendly production, Strategy for Transition from the Present state to Universal Human Order</li> <li>• At the level of Individual- as Socially and Ecologically Responsible Technologists and managers,</li> <li>• At the Level of Society- as Mutually Enriching Institutions and organizations.</li> <li>• Case studies of typical holistic technologies and management patterns.</li> </ul>	17
4	<b>Gender- An overview :</b> <ul style="list-style-type: none"> <li>• Gender: Definition, nature and evolution, culture, tradition, histocrity, Gender spectrum: biological sociological , psychological conditioning</li> <li>• Gender based division of labour- domestic work and use value.</li> </ul>	15
5	<b>Gender- Contemporary perspectives :</b> <ul style="list-style-type: none"> <li>• Gender justice and human rights: international perspectives</li> </ul>	15

	<ul style="list-style-type: none"> <li>• Gender: constitutional and legal perspectives</li> <li>• Media and gender</li> <li>• Gender: emerging issues and challenges.</li> </ul>	15
	<b>TOTAL</b>	<b>75</b>

### **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

## Notes

## Notes