

**AC 27/2/13**  
**Item No. 4.17**

**UNIVERSITY OF MUMBAI**



**Syllabus for Ph. D. (Home Science) Course Work**

**Program: Ph. D.**

**Course: Home Science**

(Credit Based Semester and Grading System  
with effect from the Academic Year 2013–2014)

1. The course work for Ph. D. will have total 18 credits of minimum six months duration.
2. The Ph.D. course work shall be offered with credit system. The entire course work will have total 18 credits. The learner will have to earn 18 credits in maximum of threesemesters.
3. Each learner after having been admitted to the Ph.D. degree programme, shall be required to undertake course work for a minimum period of one semester. The course work shall be treated as Ph.D. preparation.

<b>Course Code</b>	<b>Title</b>	<b>Max. credits</b>
DSHS101	Research Methodology and Computer Applications	6
DSHS102	Active Participation and Academic Development	6
DSHS103	Core / Specialized Component	6

4. Each Course shall be of 6 Credits.
5. Course work will be handled by concerned guide/s.
6. There may not be any formal classroom teaching however proportionate remission shall be given to the concerned teacher/s involved in guiding, as may be sanctioned by the competent authority from time to time.
7. Mode of study and evaluation for courses:
  - i. The continuous assessment of all the theory courses of Ph. D. course work shall be done by the concerned and appropriate faculty of the research centre. The internal assessment will have 40% weightage and external assessment will have 60% weightage. It may include assignments/class tests/case studies or seminars.
  - ii. The external assessment shall be by assigning the topic to learner for the seminar, wherein the learner's contribution in collecting reference material, understanding the topic of the seminar work will have 30% weightage, presentation of the seminar and ability to answer the questions will have 50% weightage and punctuality, enthusiasm and aptitude of the student in preparing the seminar, writing the report will have 20% weightage. This will be evaluated by the concerned teacher/teachers.
8. The record of the evaluation is to be maintained till the learner clears his/her PhD degree from the university.
9. Seven-point scale will be followed for assigning the final grade. Learner should get minimum 'C' grade to qualify.
10. After completion of the course work guiding teacher will submit the certificate of completion of course work to the university in the prescribed format:

## Certificate

This is to certify that Mr/Ms/Mrs. \_\_\_\_\_ (Surname)  
\_\_\_\_\_ (First name) \_\_\_\_\_ (Secondname) has  
been a regular student of Ph.D. with Registration No. He/She has attended the course work  
conducted at the recognized research centre/department from \_\_\_\_\_ to  
..... during the year ..... He/She has successfully completed the Ph.D.  
course work prescribed by the University of Mumbai. He/She secured grade in the seven  
pointscale.

Date:

Guiding teacher:

Name:

Head of the Department/Principal

Name:

**Name of Research Centre:**

Course Code	Title	Marks	Credits
DSHS101	Research Methodology and Computer Applications	100	6

### Objectives

- To strengthen the basics of research and statistics.

Course Content	Topics	Periods
Unit I	<p><b><u>Quantitative Research Methods</u></b></p> <p>Identifying broad areas of research in each of the three disciplines of Home Science (Foods, Nutrition and Dietetics, Human Development and Textile and Fashion Technology), specifying research topics within a broad area, prioritizing research topics, importance of literature review, strategies used in reviewing scientific literature, specifying the research purpose (objectives, hypotheses, and questions)</p> <p>Sampling and measurement in quantitative research</p> <p>Research designs in quantitative research (descriptive research design, correlational research design, experimental and quasi-experimental research designs, single case or small-group research designs, survey research, evaluation research designs)</p> <p>The ethical, political, and cultural context of research</p> <p>Coordinating a research team: maintaining and developing a good working research laboratory; applying for research grants; making scientific paper presentations and publishing research</p>	5
Unit II	<p><b><u>Statistics</u></b></p> <p>Role of statistics in quantitative research, descriptive versus inferential statistics, descriptive statistics for summarizing nominal level variables and ordinal level variables, and introduction to descriptive statistics for summarizing ratio level and interval level variables</p> <p>Descriptive statistics for interval and ratio level variables, and introduction to probability</p> <p>Probability, types of distribution (frequency distribution, normal distribution, probability distribution, and sampling distribution), type I and type II errors, central limit theorem, point estimation versus interval estimation, and standard error</p> <p>Using statistics to contrast phenomena (e.g., t- or z- test for contrasting two independent groups, paired t-test)</p> <p>Using statistics to examine relationships between phenomena (e.g., product-moment correlation coefficient)</p>	5
Unit III	<p><b><u>Statistical Package for the Social Science (SPSS)</u></b></p> <p>Introduction to SPSS, data entry (Variable View versus Data View, Variable Names, Variable Labels, Format of Values, Value Labels, Missing Values) and data management strategies (sort variables, insert variables, insert cases, edit values, edit variable information)</p> <p>Data transformation strategies (Compute Variables, Recode variables); data analysis and interpretation: descriptive statistics(Frequency, Descriptives, Explore)</p> <p>Data analysis and interpretation: descriptive statistics for selected cases (Select Cases), by sub-groups (Split File)</p> <p>Data analysis and interpretation: statistics that permit us to contrast phenomena (test assumptions, test results)</p>	5
Unit IV	<p><b><u>Qualitative Research Methods</u></b></p> <p>Distinguishing qualitative research methods from quantitative research methods, differences in the worldviews of qualitative and quantitative</p>	5

	<p>researchers, goals in qualitative research, roles of the researcher and participant in qualitative research, and examples of qualitative research</p> <p>Qualitative research paradigms: Positivist paradigm, post-positivist paradigm, interpretive/constructivist paradigm, critical paradigm, and post-structural paradigm</p> <p>Sampling techniques and strategies (concepts/principles of theoretical sampling and saturation), data collection methods and strategies (concepts of data triangulation, methodological triangulation, reflexivity approach within data collection, member checks), and research designs for qualitative research (e.g., case studies, ethnography, ethnomethodology, constructivism, phenomenology, action inquiry, orientational) in qualitative research</p> <p>Data analysis strategies (e.g., theme extraction) and data reporting strategies (e.g., thick description) in qualitative research</p> <p>Designing qualitative research, designing mixed methods research, applications of qualitative research methods in Home Science.</p>	
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Course Code	Title	Credits
<b>DSHS102</b>	<b>Active Participation and academic development</b>	<b>6</b>

### Objectives

- To foster active participation of research scholars in academic programmes and to facilitate academic development

DSHS102 which shall be executed during the Ph. D. work carrying max. 6 credits to be completed from amongst the following:

S. No.	Criteria	Credits
1.	One poster/paper/presentation either from the thesis or otherwise, at national or international conference	2 credits per paper (Max. 4 credits)
2.	Attending workshops cumulative 7 days duration	2 credits (Max. 2 credits)
3.	Training in the laboratory outside the department/field work at least for a week:	2 credits (Max. 2 credits)
4.	Two Seminars/presentations given on a topic other than the main topic of Research, which is attended by the faculty	2 credits (Max. 2 credits)
5.	Member of the Organizing Committee of workshop/seminar/conference at state/national or international level	2 credits (Max. 2 credits)
6.	Teaching the undergraduate for minimum of 15 periods	2 credits (Max. 2 credits)

Course Code	Title	Marks	Credits
DSHS103	Core/Specialized Component	200	6

**Objectives:** To provide opportunity for Ph. D. scholars to gain in-depth knowledge/expertise in the chosen area of specialization.

Ph. D. scholars choose any one module for examination and to conduct pilot research work. The area is defined clearly under the guidance of an assigned faculty member. When appropriate, this may include combining interdisciplinary areas of study. The preliminary research work establishing viability of the study or pilot study will be undertaken as a mini research project that will be assessed by the research guide.

Mode of assessment	Marks	Duration	Credits
Examination	100	3 Hours	4
Pilot research work	100	Within a span of 6 months	2

### BRANCH I: FOODS, NUTRITION AND DIETETICS

#### MODULE I: Nutritional Biochemistry

S.No.	Topics	Credits
Unit I:	Advances in Bio organic Chemistry Membrane Biochemistry & Cell Signalling Industrial Biochemistry Carbohydrates & Lipids of industrial importance Industrially significant enzymes – Lipase, Streptokinase Hormones – Interferons, Insulins, Erythropoietin	1
Unit II:	Bioluminescence & Unusual Biomolecules – Prions, SNURPS, Lectins, Antifreeze proteins, Stress proteins, Chaperons, Ionophores, cyclodextrins, cyclopeptides	1
Unit III:	Environmental Biochemistry Air, water, Noise Pollution and its impact on health Toxins in the environment Heavy metals, pesticides, insecticides, polyaromatic hydrocarbons	1
Unit IV:	Clinical and Pharmaceutical Biochemistry Therapeutic proteins Vaccines and anti-toxoids Animal and Plant Tissue culture Microbial Tissue Culture Biochemistry of Muscles, Bones, Nerve Bioinformatics Proteomics Genomics	1

#### References

Voet&Voet – *Biochemistry*, 2<sup>nd</sup> Edition.

Satyanarayanan – *Biochemistry*, 2<sup>nd</sup> Edition.

*Industrial Microbiology* – A.H. Patel; McMillan India Ltd., 1<sup>st</sup> Edition.

*Chemistry of Natural Products* – Agarwal& Sharma.

*Environmental Chemistry* – A.K. De, New Age International Publications, 4<sup>th</sup> Edition.

*Bioinformatics – Methods and Applications* – S.C. Rastogi, PHI Learning Pvt. Ltd.

**MODULE II: Food Preservation and Processing**

S.No.	Topics	Credits
Unit I:	Food consumption practices and nutrient intakes of Indian population - Region and community wise Common nutritional problems in Indian population	1
Unit II:	Food Processing for food and nutrition security – Nutrient conservation, Food fortification and Food enrichment Application of food engineering process for development of novel nutritious food products and its suitability to various communities	1
Unit III:	Advances in Food preservation techniques Food additives – natural and synthetic – issues of concern Functional, Designer and Organic foods (Nutritional and Non-nutritional) Pre, pro and synbiotics/neutraceuticals	1
Unit IV:	Application of Nanotechnology in food production and processing Neutrigenomics Genetically modified foods	1

**References**

- McWilliams, M (2007) *Foods: Experimental Perspectives* 7<sup>th</sup> ed., New Jersey: McMillan Publishing Co.
- N.S. Manay and M. Shadarsharawamy (1997) *Foods: facts and principles* New Age International Publishers, New Delhi.
- Potter, N.N. and Hutchkiss J.H. (1997) *Food Science* 5th ed. New Delhi: CBS Publishers and Distributors
- Subbulakshmi, G. and Udipi, S.A. (2001) *Food Processing and preservation* New Delhi; New Age International (P) Ltd. Publishing.
- Swaminathan, M (1995) *Food Science Chemistry and Experimental Food*.The Bangalore Printing and Publishing Co. Ltd.
- Rick Parker (2003) *Introduction to Food Science*, N.Y. Delmar Thomson learning.
- Scottsmith and Hui Y.H. (Editors) (2004) *Food Processing – Principles and applications* Blackwell Publishing, London.
- Borvers, J. (1992) *Food Theory and application* (2nd ed) New York Maxwell Macmillan International edition
- Vacklavick V and Christian E (2003) *Essentials of Food Science* Kluwer Academic / Plenum Publisher, New York
- Belitz, H.D. and Grosch, W (1999) *Food Chemistry*, Berlin Springer
- Journals:  
JFSI – AI  
Journal of Food Science  
Journal of Food Safety  
Journal of Food Chemistry  
Journal of Food Microbiology (National & International)

**MODULE III: Food Service Management**

S.No.	Topics	Credits
Unit I:	Meeting the challenges of Food Service Management <ul style="list-style-type: none"> <li>• Systems Approach to Management and the Food Service Industry</li> <li>• New Food Service Trends for Culinary, Hospitality and On-Site segments of the Food Service Industry</li> <li>• Customer retention, shifting demographics and economics and high work force turnover</li> </ul>	1

Unit II:	<p>Control Systems and Related Systems</p> <ul style="list-style-type: none"> <li>• Managing cost</li> <li>• Issues in the Food Flow to Service Procurement → Service, Quality Improvement and Benchmarking</li> <li>• Production Methods <ul style="list-style-type: none"> <li>○ Controls</li> <li>○ Emergency preparedness</li> <li>○ Sustainable production practices</li> </ul> </li> <li>• Energy management and Conservation</li> <li>• Water Management, pest Management</li> </ul> <p>Food Safety concerns in FSO</p> <ul style="list-style-type: none"> <li>• Programs</li> <li>• Risk Management</li> <li>• Disaster planning</li> <li>• Bioterrorism</li> </ul>	1
Unit III:	<p>Organizational Management</p> <ul style="list-style-type: none"> <li>• Management principles, emerging management issues</li> <li>• Leadership and Organizational Change</li> <li>• Modern theories of Motivation and Leadership</li> <li>• Practical Applications for personal and organizational change</li> <li>• Corporate culture and Communication</li> <li>• Computerized Information Systems for Managing Food and Nutrition Services</li> </ul> <p>Marketing, Service and HR system (Human Resources)</p> <ul style="list-style-type: none"> <li>• HR systems</li> <li>• Market research</li> <li>• Menu planning and merchandising strategies</li> <li>• Management Quality in Food and Nutrition Services</li> </ul>	1
Unit IV:	<p>Fiscal Management</p> <p>Financial functions in food operations</p> <ul style="list-style-type: none"> <li>• Menu mix and engineering</li> <li>• Food purchasing, Production and Inventory</li> <li>• Cost and Profit determination</li> <li>• Labour</li> <li>• Statements – Profit/Loss, Balance sheet</li> </ul>	1

### References

Edelstein Sari, "Managing Food and Nutrition Services for the Culinary, Hospitality and Nutrition Professionals" Boston, Jones and Bartlett, 2008.

Payne Pallacio June, Theis Monica. "Introduction to Food Service"

"Design and Equipment for Restaurants and Food Service" Hoboken, New Jersey, John Wiley & Sons Inc, 2005.

Robins and Coulter Mary, "Management", prentice hall (2002).

Ashwattapa K. "Human Resources and Personal Management" Tata McGraw hill Pub. Co., New Delhi.

Gosnay and Richardson, "Develop your Marketing Skills" Kagan Page Pvt. (Ltd.) New Delhi (2009).

Schiffman&Kanuk. "Consumer Behaviour" prentice hall Pvt. (Ltd.) 1996.

Cert C. Samuel. "Modern Management" Delhi; Pearson Education Pvt. Ltd., 2003.

### MODULE IV: Food Analysis and Quality Control

S.No.	Topics	Credits
Unit I:	Sensory evaluation of foods – subjective and objective methods	1



	Basic statistical concepts for sensory evaluation	
Unit II:	Compositional Analysis methods Various techniques and methods used – chromatographic techniques and spectroscopy Latest instruments used – principles and procedures Microbial analysis of foods	1
Unit III:	Role of Hygiene and sanitation in food quality Food Quality and Food Standards – National and International, Food Audit, ISO series Quality Management Systems – HACCP and TQM	1
Unit IV:	Food Additives and Food Adulterants Food labeling and Nutrition labeling Food laws and regulations related to food quality Regulatory agencies – Governmental and non-governmental	1

### References

- S. Suzanne Nielson (2002) *Introduction to the chemical analysis of foods* CBS Publishers and Distributors, New Delhi
- Egan, H. Kirk, R. Sawyer R. (1981) *Pearsons Chemical analysis of foods* 8<sup>th</sup> edition Longman Scientific and Technical.
- A.O.A.C. (1990) *Official methods of Analysis* 15<sup>th</sup> ed. Association of official analytical chemists, Washington, D.C.
- Mayer, L.H. (1987) *Food Chemistry* CBS Publishers and Distributors. ISI Publications on different foods.
- Pearson, D. (1970) *Chemical Analysis of Foods*, 6<sup>th</sup> ed., London, T.A. Churchill.
- Singhal, R.S. (1997) *Handbook of indices of food quality and authenticity*. Cambridge Woodhead Publishing, New York.
- Longree, Karla (1996) *Quality Food Sanitation* 5<sup>th</sup> edition John Wiley and Sons, New York, New York.
- Mcswane, D. (1998) *Essentials of Food Safety and Sanitation* 1<sup>st</sup> edition, Prentice – Hall Inc, New Jersey.
- Roday, S (1999) *Hygiene and sanitation in food industry*, Tata McGraw Hill Pub. Co. Ltd.
- Potter, N.H. (1997) *Food Science*, 5<sup>th</sup> edition, New Delhi, CBS Publishers and Distributors, New Delhi.
- Negi, Jagmohan (2004) *Food and Beverage laws: Food Safety and Hygiene*, Amar Prakashan, New Delhi.
- Khanna, Shriram (2003) *Food Standards and Safety in a globalised world*. The impact WTO and Codex.
- McWilliams, Margaret (2000) *Foods Experimental perspectives*, 7<sup>th</sup> edition, Prentice Hall Inc, New Jersey.
- Lawless H.T. and Heymann H. (1999) *Sensory Evaluation of Food – Principles and Practice*. Kluwer Academic / Plenum Publishers, New York.
- Nielson S.S. (2003) *Food Analysis*, 3<sup>rd</sup> edition, Kluwer Academic / Plenum publishers.
- Roday S. (2011) *Food Hygiene and Sanitation – with case studies* 2<sup>nd</sup> ed., Tata McGraw Hill Education Pvt. Ltd.

**MODULE V: Clinical Nutrition and Therapeutic Dietetics**

<b>S.No.</b>	<b>Topics</b>	<b>Credits</b>
Unit I:	Nutritional Epidemiology <ul style="list-style-type: none"><li>• Assessment techniques</li><li>• Common local / national / global nutritional problems</li><li>• Role of epigenesis in the changing nutrition epidemiological scenarios</li></ul>	1
Unit II:	Clinical applications of nutritional and non-nutritional food components – recent advances. Role of: <ul style="list-style-type: none"><li>• Macro and Micronutrients</li><li>• Phytonutrients and functional foods</li><li>• Dietary supplements and nutraceuticals</li><li>• Probiotics and prebiotics</li></ul>	1
Unit III:	Preventive and Fitness Nutrition <ul style="list-style-type: none"><li>• Efforts by FAO/WHO, ICMR and NIN in developing RDA and promoting wellness among populations</li><li>• Changing trends in diets for individuals involved in exercise and sports</li><li>• Recent advances in disease prevention</li><li>• Medical Nutrition Therapy – recent advances</li></ul>	1
Unit IV:	Caring for people through the life cycle <ul style="list-style-type: none"><li>• Ethnic eating patterns – Indian and International</li></ul> Recent advances in nutrition through life cycle Recent concepts in: <ul style="list-style-type: none"><li>• Gene-nutrient interactions</li><li>• Drug-nutrient interactions</li><li>• Inflammation and chronic disease</li><li>• Nutrition counselling</li><li>• Ethics in nutrition research</li><li>• Critical Care Nutrition</li></ul>	1

**References**

Food and the Nutrition Care Kraine, Mahan and Escott-Stump (Latest Ed.)  
Modern Nutrition in Health and Disease, Shills Etd.  
Human Nutrition, Geisule Powers  
Natural antioxidants and anticarcinogens in nutrition, health and disease, J.T. Kermgeilainen and J.T. Saloren.  
Natural antioxidants and food quality in Arteriosclerosis and Cancer Prevention, J.T. Kermgeilainen and J.T. Saloren.  
Nutrition in exercise and Sports, Wolinsky  
Clinical Sports Nutrition, Louise Berke& V. Deakin.  
Functional Foods, I. Goldberg.  
Phytochemical functional Foods, I. Johnson and G. Williamson  
Nutrition and Dietary supplements in Disease Management, J. Jamison  
Nutrition through Life Cycle, Judith Brown  
Biochemical, Physiological, Molecular Aspects of Human Nutrition, Martha Stepanech  
API Textbook of Medicine  
Journals:  
American Journal of Clinical Nutrition  
Nutrition Reviews  
Journal of Nutrition  
Journal of American Dietetic Association

**MODULE VI: Public Health Nutrition**

<b>S. No.</b>	<b>Topics</b>	<b>Credits</b>
Unit I:	Principles of epidemiology and epidemiological methods Assessment of the nutritional status of the population Research methods in public health nutrition – critical factors	1
Unit II:	Nutrition and health scenario in India Under and over-nutrition in children Nutrition for the aged	1
Unit III:	Food and Nutrition in natural and man made disasters Public health emergency preparedness and response Public health interventions Planning result oriented public health nutrition programs – theory and practice	1
Unit IV:	National policies National Nutrition Policy National Health Policy National Nutrition Policy	1

**References**

- Sheila ChanderVir. “Public Health Nutrition in Developing Countries” Part 1. Woodhead Publishing India Pvt. Ltd., New Delhi, 2011.
- Sheila ChanderVir. “Public Health Nutrition in Developing Countries” Part 2. Woodhead Publishing India Pvt. Ltd., New Delhi, 2011.
- Marie A. Boyle and David H. Holben. “Community Nutrition in Action”. An entrepreneurial approach, 4th edition, Thomson, Wadsworth, 2005.
- Howerde E. Sauberlich. “Laboratory tests for the assessment of Nutritional status”, 2nd Edition, CRC Press, London.
- Bernard J. Turnock. “Public Health – What it is and how it works”, 4th ed. Jones and Bartlett Publishers, Sudbury, Massachusetts, 2009.
- WHO “The Management of nutrition in major emergencies” World Health Organization, 2000.
- Adrienne Bendich and Ricard J. Deckelbaum “Preventive Nutrition”. Human Press, Totawa, New Jersey
- Robert D. Lee, David C. Nieman. “Nutritional Assessment” 3rd ed. McGraw Hill, Higher Education, 2003.

## Branch II: Human Development

### MODULE I: Development across the Life Span

S. No.	Topics	Credits
Unit I:	Classic Theories of Human Behaviour and Development a. Psychoanalytical theories b. Behaviourist theories c. Cognitive theories	1
Unit II:	Contemporary theories of Human Behaviour and Development a. Life span theory b. Life course theory c. Ecological theory d. Dynamic systems theory e. Action perspectives f. Positive youth development	1
Unit III:	Current theory and research in child, adolescent and adult development	1
Unit IV:	Special topics I (gene-environment contributions in human development, language development, cognitive development emotional competence, attachment, self, personality development, socialisation)	1

#### References

Damon, W. & Lerner R.M. (Eds.-in-Chief). (2006) *Handbook of Child Psychology: Child Psychology in Practice*; John Wiley & Sons, New Jersey. (All Volumes)

### MODULE II: Marriage and Family

S. No.	Topics	Credits
Unit I:	Family Theories IA. Introduction - Brief history of Family Theory - Conceptual Frameworks: 1950-1966 - Formal Theory Construction: 1967-1979 - Pluralism: 1980-1999 - Post-modern Theory: 2000 onwards - Evaluation of the Theory IB. Assumptions, Concepts, Propositions and Applications of Family Theories - Structural Theory - Family Developmental Theory - Social Exchange Theory - Symbolic Interaction Theory - Conflict Theory - Stress Theory - Family Systems Theory - Feminist Family Theory - Bio-social theory	1
Unit II:	Research in Family Studies - Nature and Scope of Research in Family Studies - Writing and Reviewing Manuscripts in Multidimensional World of Research related to the field of Family Studies - Enhancing the Research Culture in Family Studies	1
Unit III:	A. Diverse Family System across the Life Cycle - Optimal Functioning Families: Diversity and Complexity - Contemporary Two-Parent Families: Strengths and Challenges - Multi-Generation and Joint Families: Diversity, Strengths and	1

	<p>Challenges</p> <ul style="list-style-type: none"> <li>- Child Development in Diverse Families</li> <li>- Adolescent Development in Diverse families</li> <li>- Couple Relationships-Diversity and Change</li> <li>- Parent-child Relationships in Diverse Families</li> <li>- Later Life Families</li> </ul> <p>B. Families in Global and Multicultural Perspective</p> <ul style="list-style-type: none"> <li>- Global Families</li> <li>- Foundations of Comparative Family Studies</li> <li>- Mate Selection and Marriage</li> <li>- Parenting Practices Worldwide</li> <li>- Diversity in International Aging Families</li> </ul> <p>Dysfunctional Families: Families with Violence</p> <ul style="list-style-type: none"> <li>- Family violence: Review of Dysfunctional behavior patterns of abusers</li> <li>- Spouse abuse</li> <li>- Teen Gang Violence</li> <li>- Youth Violence</li> <li>- Adult Survivors of Childhood Abuse or Domestic Violence</li> </ul>	
Unit IV:	<p>National Family Welfare Programme and Population Policies in India</p> <ul style="list-style-type: none"> <li>- Evolution of the Family Welfare Programme</li> <li>- Family Welfare Programme in India- A Changing Paradigm</li> <li>- Role of Voluntary Agencies and Community Agencies</li> <li>- The Politics of Reproduction and Fertility Control</li> </ul> <p>Issues/ Current Trends in Human Development and Family Studies</p> <ul style="list-style-type: none"> <li>- Marriage and Wellbeing – Research and Policy Perspectives</li> <li>- Children with Non-Resident Parents: Living Arrangements, Visitation and Child Support</li> <li>- Social Neuro-Science</li> </ul> <p>Family and External Institutions: Work-Family Interface / Media-Family Interface/ Health Care/ Family Interface</p>	1

**References**

Bartlein, B. (2003). *Why did I marry you anyway? 12.5 strategies for a happy marriage (and the mythinformation that gets in the way)*.Cumberland.

Bernades, J. (1997). *Family studies: An introduction*. Routledge.

Gottman, J. (1998). *Why marriages succeed or fail: And how you can make yours last*. Bloomsbury.

Gottman, J. (2002). *The relationship cure: A 5 step guide to strengthening your marriage, family, and friendships*.Three Rivers.

Gottman, J., Notarius, C., Gonso, J., &Markman, H. (1979). *A couple’s guide to communication*. Illinois: Research Press.

Gottman, J., & Silver, N. (2000). *Seven principles for making marriage work. A practical guide from the country’s foremost relationship expert*.Three Rivers. ISBN-10:

Kumar, A. (2006). *Women and family welfare*. Eastern Book Corp.

Measham, A. R., & Heaver, R. A. (1996). *India’s family welfare program. Moving to a reproductive and child health approach*.World Bank.

Price, S. J., McKenry, P. C., & Murphy, M. J. (Eds.) (2000). *Families across time: A life course Perspective (Readings)*. Roxbury.

Roy, P. K. (2003). *Family diversity in India. Patterns, practices and ethos*.Gyan.

Shireman, J. F. (2003). *Critical issues in child welfare*.Columbia University.

Steel, L., & Kidd, W. (2001). *The family*. England: McMillan

Sussman, M., Steinmetz, S. K., & Peterson, G. W. (1999). *Handbook of Marriage and the family*. New York: Plenum.

White,J.M&Klen,M.(2008). *Family Theories*.Sage publications New Delhi.

## Journals

Journal of Marriage and Family

Journal of Family Issues

The journal of Family Welfare

### MODULE III: Education

S. No.	Topics	Credits
Unit I:	Education during Early Childhood Years	1
Unit II:	Education during Primary School Years Education during Secondary School Years	1
Unit III:	Higher Education Education for Individuals with Special Needs	1
Unit IV:	Contemporary Issues in Education (e.g., Multilingual Education; Equity in Access & Success; RTE; Child in Poverty; Peace Education; Character Education)	1

## References

- Albrecht, K., & Miller, L. G. (2000). *Innovations, the comprehensive infant curriculum: A complete, interactive curriculum for infants from birth to 18 months*. Beltsville, MD: Gryphon House.
- Albrecht, K., & Miller, L. G. (2000). *Innovations, the comprehensive toddler curriculum: A complete, interactive curriculum for toddlers from 18 to 36 months*. Beltsville, MD: Gryphon House.
- Anning, A., Cullen, J., & Flear, M. (Eds.) (2004). *Early childhood education. Society and culture*. London: Sage.
- Carr, J.F., & Harris, D.E. (2001) *Succeeding with Standards. Linking curriculum, assessment and action planning*. Alexandria, Virginia: Association for Supervision and Curriculum Development.
- Carter, M., & Curtis, D. (1998). *The visionary director: A handbook for dreaming, organizing, & improvising in your center*. St. Paul, MN: Redleaf Press.
- Cherry, C., Harkness, B., & Kuzma, K. (2000). *Child care center management guide: A hands-on resource*. Torrance, CA: Fearon Teacher Aids.
- Click, P. M. (2004). *Administration of programs for young children*. Thomson Delmar Learning.
- Curtis, D., & Carter, M. (2003). *Designs for living and learning: Transforming early childhood environments*. St. Paul, MN: Redleaf Press.
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- Greenman, J., & Stonehouse, A. (1996). *Prime times: A handbook for excellence in infant and toddler care*. St. Paul, MN: Redleaf Press.
- Gupta, A. (2006). *Early childhood education, postcolonial theory, and teaching practices in India*. NY: Palgrave, Macmillan.
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- Leeper, S. H., Witherspoon, R. L., & Day, B. (1984). *Good schools for young children*. NY: Macmillan.
- Lefrancois, G.R. (1999) *Psychology of teaching*. Belmont, CA: Wadsworth / Thomson Learning
- Morgan, G. G. (1999). *The bottom line for children's programs: What you need to know to manage the money*. Beltsville, MD: Gryphon House.
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#### **Current Articles from Journals**

- Young Children,  
 Childhood Education,  
 Harvard Educational Review,  
 Journal of Research in Childhood Education.  
 Annual Editions of NAEYC's Early Childhood Education

### **MODULE IV: Counselling**

<b>S. No.</b>	<b>Topics</b>	<b>Credits</b>
Unit I:	Historical and professional foundations of counselling <ul style="list-style-type: none"> <li>• History of and trends in counselling</li> <li>• Personal and professional aspects of counselling</li> <li>• Ethical and legal aspects of counselling</li> <li>• Counselling in a multicultural society</li> <li>• Counselling with diverse populations</li> </ul> Counselling Process and theories <ul style="list-style-type: none"> <li>• Core conditions of counselling</li> <li>• Microskills in counselling ( questioning, reflection, reassurance, confrontation , advanced empathy)</li> <li>• Stages in counselling (building a relationship, in depth exploration, commitment to action and termination)</li> <li>• Affective approaches to counselling - Affective (Person - Centered and Gestalt therapy)</li> <li>• Cognitive- Behavioural Approaches to counselling ( Behavioural, Rational –Emotive , Transactional Analysis)</li> <li>• Brief and Crisis Theories of Counselling</li> </ul>	1

Unit II:	Counselling specialities <ul style="list-style-type: none"> <li>• Child and adolescent counselling/ school and college counselling</li> <li>• Marriage , couple and family counselling</li> <li>• Elderly counselling</li> <li>• Career counselling over the life span</li> <li>• Abuse and Disability counselling</li> <li>• Counselling HIV infected clients and Gay men and lesbians</li> <li>• Community counselling</li> </ul>	1
Unit III:	Groups in counselling <ul style="list-style-type: none"> <li>• A brief history of groups</li> <li>• Benefits and drawbacks of groups</li> <li>• Types of groups</li> <li>• Theoretical approaches in conducting groups</li> <li>• Stages and issues in group counselling</li> <li>• Qualities of effective group leaders</li> <li>• Future of group work</li> </ul>	1
Unit IV:	Core counselling activities in various settings <ul style="list-style-type: none"> <li>• Testing, Assessment and Diagnosis in counselling</li> <li>• Consultation</li> <li>• Research in counselling</li> <li>• Evaluation of counseling</li> </ul> Professional Issues <ul style="list-style-type: none"> <li>• The process of counsellor education</li> <li>• Dealing with burn-out</li> <li>• Challenges in the field of counselling</li> <li>• Integrating counselling approaches of the East and the West</li> <li>• Future trends in counselling</li> </ul>	1

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- Corey, G. (2009). *Practise of counselling and psychotherapy* (8<sup>th</sup> ed.).California: Thomson Brooks-Cole.
- Gladding, S. (2009). *Counselling: A comprehensive profession* (6<sup>th</sup>ed.).New Delhi: Pearson Education Inc.
- Kotler, J. A., & Brown, R. W. (2004). *Introduction to therapeutic counselling : Voices from the field* (5<sup>th</sup> ed.). California: Brooks-Cole.
- Patterson, L. E., &Welfel, E.R . (2000). *The counselling process* (5<sup>th</sup> ed.). California: Brooks-Cole.
- Journals: Journal of Counselling, Psychotherapy

#### MODULE V: Health and Positive Psychology

S.No.	Topics	Credits
Unit I:	A. Introductory <ul style="list-style-type: none"> <li>• The changing field of health</li> <li>• Mind-body relationship/ involvement of psychology in health</li> <li>• Relevance of Health psychology</li> <li>• Biopsychosocial model of Health Psychology</li> <li>• Training in Health Psychology</li> <li>• Conducting health research</li> </ul> B. Stress and Coping	1



	<ul style="list-style-type: none"> <li>• Theoretical contributions to the study of stress</li> <li>• Nature, sources, reactions to stress</li> <li>• Impact of stress</li> <li>• Psychometric measurement of stress</li> <li>• Reduction of stress through effective coping mechanisms</li> </ul>	
Unit II:	<p>The Patient in the Treatment Setting</p> <ul style="list-style-type: none"> <li>• Adherence to medical adherence , assessment of adherence</li> <li>• Impact of hospitalization on the individual - child , adolescent and adult</li> <li>• Interventions to help individuals cope with hospitalization ( medical procedures, control in hospital setting)</li> <li>• Importance of the patient – provider relationship</li> <li>• Pain and its management</li> <li>• Chronic illness/ Terminal illness ( QoL of patients, psychological issues, coping, problems of survivors)</li> </ul>	1
Unit III:	<p>Health Promotion and Challenges for the Future</p> <ul style="list-style-type: none"> <li>• Health promotion through health enhancing behaviours/ life style changes</li> <li>• Barriers to health promotion</li> <li>• Health services</li> <li>• Challenges in health care</li> <li>• Future trends in health psychology</li> <li>• Outlook for health psychologists</li> </ul>	1
Unit IV:	<p>Positive Psychology—An Introduction</p> <p>A movement away from deficit-centred approaches</p> <p>Theories; developmental trends in prosocialbehaviours; familial and extra-familial influences</p> <p>Optimism, Hope, Empathy, Altruism, Spirituality and Religiousness</p>	1

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Damon, W. & Lerner R.M. (Eds.-in-Chief). *Handbook of Child Psychology: Child Psychology in Practice(Volume 3); (Chapter on prosocial development (Eisenberg et al.)John Wiley & Sons, New Jersey.*

Hoeger, W., Turner, L., &Hafen, B. (2006). *Guidelines for a healthy lifestyle.*California: Wadsworth/ Thomson Learning.

Taylor, S . (2006). *Health Psychology* (6<sup>th</sup> ed.). New York : Tata Mcgraw Hill Publishing Company.

*Journal: Health Psychology*

### MODULE VI: Organizational Behaviour and Administration of Human Development Agencies

S. No.	Topics	Credits
Unit I:	<p>A. Introduction</p> <ul style="list-style-type: none"> <li>• An overview of the development of Organizational Psychology/ behaviour</li> <li>• Significance of organizational behaviour</li> <li>• Disciplines contributing to organizational behaviour</li> <li>• Research foundations in organizational behaviour</li> <li>• Contemporary challenges in organizational behaviour</li> </ul>	1

	<ul style="list-style-type: none"> <li>• Emerging trends in and future prospects for organizational behaviour</li> </ul> <p>B. The Individual</p> <ul style="list-style-type: none"> <li>• Perception and impression management</li> <li>• Learning and behavioural management</li> <li>• Motivation- concepts, theories (content and process) and application</li> <li>• Personality and creativity</li> <li>• Job satisfaction (in relation to personality characteristics, pay), measurement</li> <li>• Job involvement and organizational commitment</li> </ul>	
Unit II:	<p>The group</p> <ul style="list-style-type: none"> <li>• Group dynamics and team work</li> <li>• Informal groups</li> <li>• Leadership (qualities, problems and pressures) and effective supervision</li> <li>• Morale and socio-technical systems</li> <li>• Communication and negotiation skills</li> <li>• Conflict and collaboration</li> </ul>	1
Unit III:	<p>The organization of the organization</p> <ul style="list-style-type: none"> <li>• High involvement management and employee participation, TQM</li> <li>• Labour unions</li> <li>• Organizational strategies and job design</li> <li>• Organizational culture and change</li> <li>• Technological change and organizational structure</li> <li>• Innovative approaches to designing and managing organizations</li> </ul>	1
Unit IV:	<p>Different human development agencies (catering to different areas and age groups; government and nongovernment); goals; roles; laws/how are they set-up; functioning; impact</p> <p>Government HD agencies/bodies</p> <p>NGOs (case studies of exemplary NGOs at various levels)</p>	1

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### Branch III Textile and Fashion Technology

#### Module I: Polymer Science

S. No.	Topics	Credits
Unit I:	Sources	1
Unit II:	Manufacture	1
Unit III:	Types/varieties	1
Unit IV:	Properties, Uses, New Innovation	1

#### References

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**Module II: Textile Processing and Finishing**

S. No.	Topics	Credits
Unit I:	Dyeing and Printing	1
Unit II:	Physical Finishes	1
Unit III:	Chemical Finishes	1
Unit IV:	Eco finishes and Recent developments	1

**References:**

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**Module III: Garment Production Technology**

S. No.	Topics	Credits
Unit I:	Marker Planning and Cutting	1
Unit II:	Sewing Machines Threads and aids	1
Unit III:	Finishing equipment	1
Unit IV:	CAIM and recent developments	1

**References:**

- Batty, J. (1975). *Industrial administration and management*. (3<sup>rd</sup> Ed.) London: The English language book society and McDonald and Svans.
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**Module IV: Design and Product Development**

S. No.	Topics	Credits
Unit I:	Inspiration, mood boards, design boards	1
Unit II:	Design Development Prototype preparation	1
Unit III:	Portfolio making and Documentation	1
Unit IV:	Forecasting	1

**References**

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 Rosenau, J. A. & Wilson, D. L. (2001), *Apparel merchandising*, New York: Fairchild Publications, Inc.

**Module V: Marketing and Merchandising**

S. No.	Topics	Credits
Unit I:	Merchandising planning/systems and Business plan	1
Unit II:	Market research	1
Unit III:	Supply chain management Information technology for merchandizing and marketing	1
Unit IV:	Market segmentation Pricing strategies	1

**References**

Boyd, H. W. (1995) *Marketing management: Strategic approach with a global orientation*. Chicago: Irwin / Richard Irwin.  
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 Kotler, P. (1998) *Marketing management: analysis, planning, implementation and control*. (9<sup>th</sup> Ed.). New Delhi: Prentice Hall.  
 Vaz, M. (1996) *Export marketing*. Mumbai: ManishaPrakashan.

**Module VI: Management of Textile and Fashion Industry**

S. No.	Topics	Credits
Unit I:	Human Resource Management	1
Unit II:	Quality systems Systems Appraisal Information Technology Management	1
Unit III:	Finance management	1
Unit IV:	Resource Management and Entrepreneurship	1

**References**

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### **Scheme of Examination**

The examination to be conducted in the first year after registration for Ph. D as planned by the Research Guide in consultation with the Head of the Institution and to be conducted by the Research Center considering the readiness of the Ph.D. research scholar

Marks: 100

Duration: Three hours

Successful scholars will earn four credits through the examination.

The Pilot research work will be undertaken as a small research project. On successful completion of the project the research scholar will prepare a detailed report and submit the same to the Research Centre. It will be assessed by the research guide for the scholar to acquire two credits.

**Learning Opportunity:** This component requires minimum of 120 hours of library reference and reading in the first six months post registration for the Ph.D. Course Work.